7. Monetary Trends and Policy

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

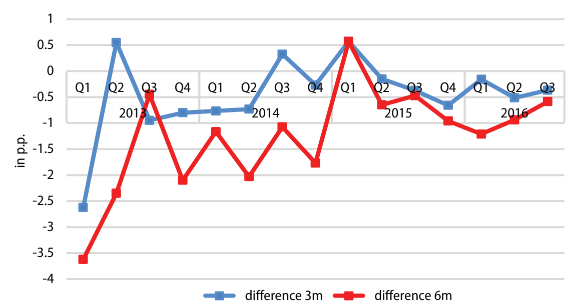
Central Bank: Balance and Monetary Policy

Inflation remains low and stable...

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

The downwards trend in the y.oy. inflation rate was stopped in Q2 and the inflation rate started rising to 0.6 in September and 1.5 in October. At monthly level, the inflation rate fluctuated with deflation at –0.6% in September followed by a monthly rise of prices of 0.7% in October. The change of direction of the pressure on the inter-banking foreign exchange market (FX market) from depreciation to appreciation in July allowed the National Bank of Serbia (NBS) to finally tackle the problem of inflation which has been below the target levels for more than two years by increasing Dinar liquidity through the purchase of foreign currency. For that purpose, the key policy rate was corrected by 0.25 base points to the current 4% while the corridor of NBS interest rate vs. key policy rate was additionally reduced by 0.25 percentage points and now stands at ±1.5 percentage points. Following these changes, the NBS changed the target inflation rate in August starting from 2017 from the current 4% to 3% while maintaining the same tolerance band for allowed discrepancies. We feel that the lowering of the target inflation is justified because inflation has been at a stable level[1] below the lower level of the existing tolerance band for three years. We feel that the risks of inflation being above the level of the target tolerance

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



Source: NBS

1 Recall that we suggested a lowering of the target inflation level.

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

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

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

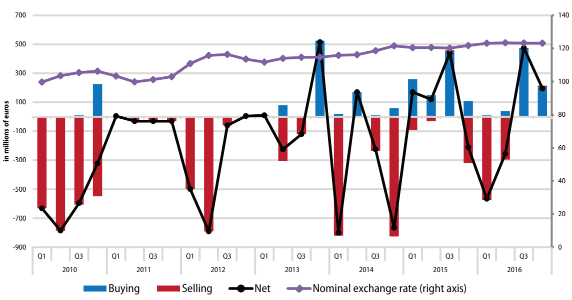
Source: NBS.
1) Initial M2 designates the state of the primary money at the start of this and end of previous year.
2) Definition of net own reserves NBS is given in section 8 Monetary Trends and Policy, Frame 4, QM no. 5.
3) State includes all levels of government: republic and local authorities.
4) This category includes NBS Treasury Bonds (BZ), and repo operations.
5) Other domestic net assets include: domestic credit (net bank debts, not including BZ and repo transactions; net enterprises debts) together with other assets (capital and reserves; and items in balance: other assets) and corrected by changes to the exchange rate.

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

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

The imbalance on the FX market in the form of depreciation pressure was shorty stabilized at the end of Q2, only to reappear in July in the form of pressure on strengthening the Dinar exchange rate. To prevent a potentially higher appreciation of the Dinar exchange rate, the NBS bought Euro on the FX market in Q3 to the value of 475 million Euro, most of which – 355 million Euro – was bought in July (in Q2 the NBA was a net seller of foreign currency to the amount of 255 million Euro, Graph T7-3). Despite the weakening of pressure in August and September, NBS data indicates that appreciation pressure is still present and that led to the purchase of an additional 195 million Euro on the FX market in October and November. That purchase of Euro had a positive effect on the creating of money mass and on the increase of NBS net own reserves. Due to that, the NBS net own reserves were increased in Q3 by 439 million Euro which partly eased the reduction in the first two quarters (from the start of the year to the end of Q2 the net own reserves were reduced by 786 million Euro, Table T7-2). Although it seems that the intensity of interventions on the FX market in the past were directed to maintaining the exchange rate below a certain level, we feel that it was a positive effort by the NBS to not allow the exchange rate to strengthen in the period of appreciation pressure as was the case in Q3. The potential positive effects of a strengthening of the exchange rate are short-term after which we would quickly see a deterioration of the price competitiveness of our exports and then a slowing down of economic activity.

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



Source: NBS

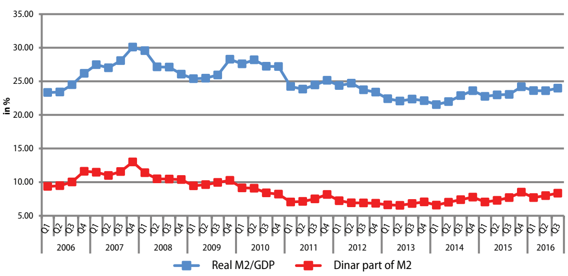
Monetary system: money supply structure and trends

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

... both in nominal and in real amounts

The nominal growth of the M2 money mass speeded up in Q3 and stood at 10.2% y.o.y. (in Q2 the growth rate stood at 7.8% y.o.y., Table T7-5) and as part of it the growth of loans to the non-government sector continued to rise to 5.9% y.o.y. When corrections for the exchange rate are included, growth of loans to the non-government sector is somewhat lower and stand at 3.9% y.o.y. with a much higher growth evident in loans to households of 8.4% y.o.y. while loans to enterprises are growing at 1% y.o.y. The real growth rates which take into consideration price changes also confirm the speeding up of the M2 growth to 9.4% y.o.y. which is the consequence of very low inflation in the past period. Following corrections for inflation, loans to households recorded the highest growth rate since 2011 which in Q3 stood at 7.6% y.o.y. while data for the enterprises is much less impressive and show a real increase of 0.3% y.o.y. When we look at the change to the money mass compared to the previous quarter, there is an evident increase of 3.2% of the value at the start of the year. Growth at quarterly level is the result of the Dinar part in the form of growth of net domestic assets (NDA) of 1.7% of the value of the initial M2 in combination with growth of net foreign assets (NSA) of 1.5% of the value of the initial M2.

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



Source: *QM* calculation

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

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

Source: NBS

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

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

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

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

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

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

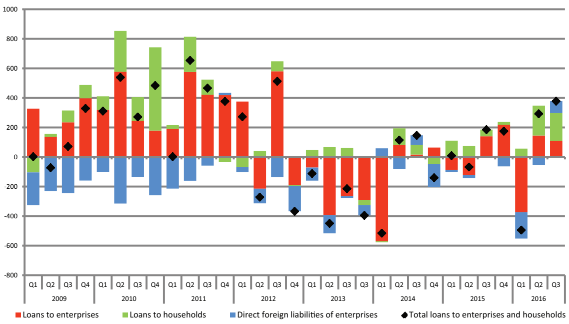
Banking Sector: Placements and Sources of Financing

Net placements to the enterprises and households are positive in Q3 …

… with signs of slowing down while placements in REPO increase

The net placements of banks in Q3 speeded up with growth compared to the previous quarter when credit activities increased significantly. Business banks recorded a growth of net placements of 703 million Euro in Q3 (in Q2 the growth of net placements stood at 298 million Euro, Table T7-7). In the overall growth, net placements to the non-government sector slowed down while net credit to the state and placement into REPO bonds increased which provides a somewhat less good structure of placements compared to Q2. The growth of net placements to the enterprises and the households in Q3 stood at 297 million Euro (in Q2 the net placements to the enterprises and households stood at 349 million Euro). The greatest part of the recorded growth is due to the households segment which recorded an increase of 187 million Euro, while net placements to the enterprises increased by 110 million Euro. In the structure of newly approved loans to the enterprises in Q3, highest participation was recorded in loans for current assets, while the participation of investment loans which can be observed as a source generating the growth of production is somewhat lower compared to the previous quarter. The recorded growth of net placements to the enterprises and households slowed down compared to Q2 which is a slight cause for concern in combination with data from October in which the segment of the enterprises repaid 210 million Euro to domestic banks. For the first time in the past two years, Q3 saw an increase in net placements on the basis of cross-border loans to the enterprises which amounted to 81 million Euro bringing the overall growth of placements to the enterprises and households from domestic and foreign sources in Q3 to 378 million Euro (Graph T7-6).

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



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

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

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

Table T7-7. Serbia: bank operations – sources and structure of placements, corrected[1)] trends, 2014-2016

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

Source: NBS

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

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

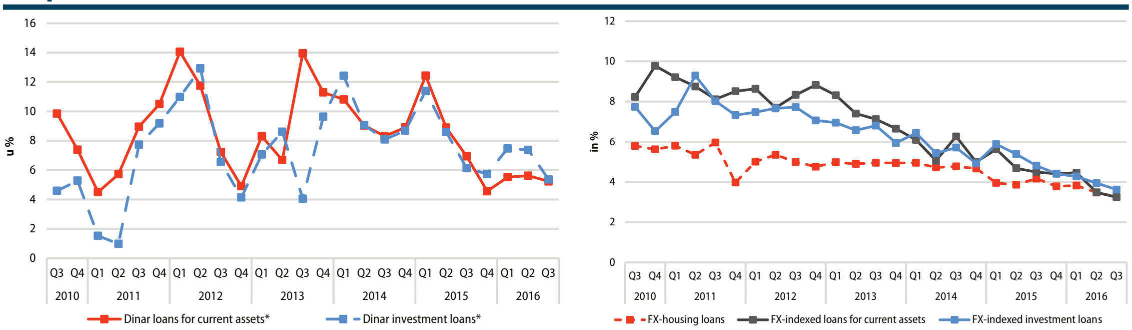
3) Net loans to the state: loans approved to the state are reduced by the state deposits in business banks; a negative prefix designates a higher rise of deposits than of credit. State includes all levels of government: republic and local authorities.

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

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

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

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



Source: *QM* calculation
* real interest rates

Sources for new placements additionally increased in Q3 …

… mainly tanks to growth of deposits to the enterprises and households

In Q3 we noted a significant rise in credit potential because of an increase of sources for new placements which amounted to 531 million Euro (Table T7-7), which increased in October by an additional 136 million Euro. That increase of sources is due in large part to the growth of domestic deposits of 473 million Euro which continues the positive trend from Q2 when the growth of domestic deposits was also the main source of growth. The increase in domestic deposits was caused in large part by the growth of deposits by the enterprises of 346 million Euro including 217 million Euro in Dinars while the rest represents an increase in foreign currency deposits by the enterprises. The remaining part of the growth of domestic deposits of 127 million Euro represents an increase of funds in the accounts of the households which also recorded a higher growth of domestic deposits over foreign currency deposits. We feel that the fact that the growth of domestic deposits continued in October to 124 million Euro is positive. By increasing funds in the accounts of own capital and reserves by 88 million Euro, business banks had an additional effect on the growth of credit potential in the banking sector. The only negative effect on the growth of sources for new placements in Q3 came from the repayment of foreign debts by banks but the amount of 30 million did not have a serious effect on the growth of bank credit potential.

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

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

Participation of bad loans reduced in Q3

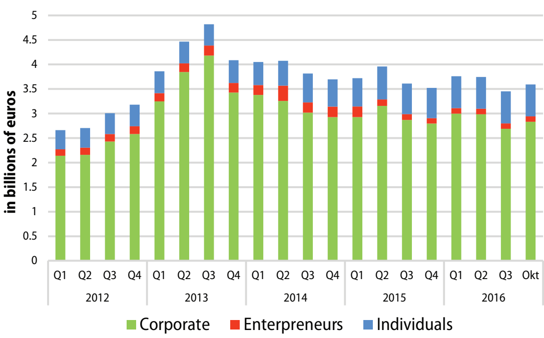
According to data from the Credit Bureau and QM methodology[2] the reduction of NPLs continued by 1.94 percentage points and they now stand at 19.06% of overall placements (Graph T7-11). Viewed by individual category, the improvement is mainly the consequence of a reduction in the participation of NPLs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

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

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

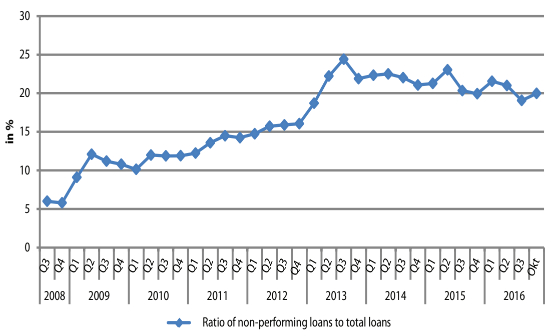
Source: *QM* calculation

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



Source: *QM* calculation

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



Source: *QM* calculation

2 For details on the manner of calculating the participation of bad loans see *QM* 6 - Pod lupom 1: NPLs and Loans in Serbia – What is the true measure?

3 According to the latest available data from the Credit Bureau in November the participation of bad loans in overall credit was reduced significantly. In the next issue of *QM* we will take a detailed look into this reduction if the data for December and January shows that the reduction is permanent.