



National Bank of Serbia

2010

FINANCIAL STABILITY REPORT

2010

FINANCIAL STABILITY REPORT

NATIONAL BANK OF SERBIA

Belgrade, Kralja Petra 12,

Tel.: +381 11 3027-100

Belgrade, Nemanjina 17,

Tel.: +381 11 333-8000

www.nbs.rs

Number of copies: 55

ISSN 1820-9106

Under Amendments and Supplements to the Law on the National Bank of Serbia enacted in 2010, and in keeping with international trends, the National Bank of Serbia is responsible for maintaining and strengthening the stability of the financial system. Namely, Article 3 of the Law on the National Bank of Serbia ("RS Official Gazette", Nos 72/2003, 55/2004 and 44/2010) prescribes that the National Bank of Serbia shall, without prejudice to its primary objective of maintaining the stability of prices, contribute to maintaining and strengthening the stability of the financial system. Thus, the National Bank's mandate for safeguarding the stability of the financial system has been extended to the strengthening of that stability, implying the use of an adequate set of instruments to ensure continuous reinforcement of the system's resilience to potential risks.

Financial stability is defined as a condition in which financial institutions are sound and stable and their resilience to the risks inherent to financial operations, as well as to external shocks, such that it enables effective financial intermediation and ensures stability and confidence in the financial system as a whole.

Therefore, the purpose of the *Financial Stability Report* is to timely identify existing and potential risks to the financial system, the banking sector in particular, and to assess the system's capacity to absorb those risks and remain stable, operational and capable of servicing its obligations as they fall due.

Using available supervisory instruments, the National Bank of Serbia strives to maintain financial institutions' resilience to risks at a level conducive to the protection of their clients' interests and to sustainable development of the institutions themselves. Aware of the significance of broad and transparent communication, through this report, the National Bank of Serbia seeks to inform about the condition of the financial system in the Republic of Serbia not only the legislative authority, as legally mandated, but also the participants in the system and the public at large.

Contents

Overview	7
I. Macroeconomic environment	9
1. International macroeconomic environment	9
2. Domestic macroeconomic environment	10
II. Non-financial sector	13
1. Household sector	13
2. Corporate sector	15
3. Capital market	16
III. Financial sector	19
1. Banking sector	19
2. Non-banking financial sector	33
IV. Financial stability	37
1. Financial Sector Support Program (FSSP) – <i>Vienna Initiative</i>	37
2. Stress tests	38
3. Temporary measures for preserving the country’s financial stability	39
4. Special facilities to support the country’s financial stability	39
5. Monetary easing measures	39
6. Regulatory relaxation	40
7. IMF and World Bank FSAP Mission	40
8. Approximation to full Basel II compliance	40
Index of charts and tables	43

Overview

Though GDP contracted by 3% in 2009, tentative signs of recovery cropped up at the close of the year. Macroeconomic movements stabilised and the anticipated negative effects on the stability of the financial sector failed to materialise thanks to the timely action of the National Bank of Serbia and other relevant institutions. In the year when most countries (notably those in the region) had their credit ratings downgraded, Serbia's credit rating by Standard&Poor's was confirmed and its outlook changed from negative to stable. Such an international assessment was later reinforced with positive comments of the World Bank/IMF FSAP mission.

Despite a mild improvement, the key risk, still remaining in the economy, was a high degree of euroisation of loans. Loans reached 42% of GDP in 2009. Households showed strong risk aversion and a very rational behaviour in the new circumstances. Their borrowing under housing loans declined and the solvency position strengthened (especially through foreign currency deposits), signalling a restoration of confidence in the banking system, which was badly dented by the irresponsible campaign conducted by some media in late 2008. The real sector showed no signs of a crisis deepening in 2009, but rather of intensification of the spill-over effects in the segments hit in Q4 2008. Despite enormous investment opportunities and government subsidies, investment accounted for a negligible share in the overall financing of the real sector, and the necessary growth, primarily in production and export oriented industries, failed to take hold. Progress needs to be made on the structural reform front and reform of the bankruptcy procedure given that the key reason behind the worsening in our economic indicators is the illiquidity of companies lasting for a year or longer.

The Serbian banking sector remains resilient to both actual and potential risks. It is still well-capitalised and highly liquid, the relevant ratios being high above national and international regulatory minimums. The reputational risk that heightened in late 2008 has subsided. The gap between bank lending and NPLs widened further amid exceptionally procyclical behaviour of banks and excessive risk aversion. Deteriorated quality of the portfolio triggered losses that weighed down on bank profitability which nonetheless stayed among the highest in the region. Losses on NPLs remain below the level of prescribed and allocated bank reserves. As confirmed by several stress test updates, the banking sector is solvent enough to withstand even a dramatic downside scenario.

Financial sector's resilience to the effects of the crisis shows that the National Bank of Serbia was right in implementing tight policies during the expansion period of 2004–2008. Capital buffers created in the run up to the crisis proved to be the key factors in alleviating its effects. Prompt action, notably the Vienna Initiative (FSSP), produced tangible results within a relatively short period of time. The introduction of Basel II and timely upgrading of the framework in line with international standards and best practices, represent a logical continuation of the National Bank of Serbia's prudential and countercyclical policy.

I. Macroeconomic environment

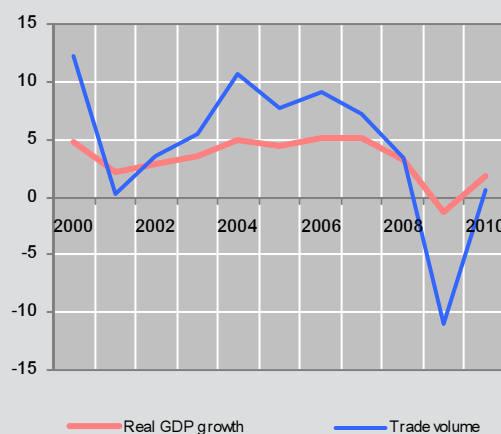
1. International macroeconomic environment

Ever since the last quarter of 2008, panic unleashed by the demise of Lehman Brothers threatened to bring about a collapse of the global financial markets, inducing a precipitous drop in global economic activity, especially industrial production and foreign trade. By contrast to the 1930s, this time the global downturn was halted relatively quickly. Large markets recovered gradually. China, for instance, practically registered no economic decline and in Q2 2009 even recorded a 17% growth in industrial production. Most of the world's large economies embarked on the path of recovery already in mid-2009, while a smaller number of countries (mostly from South and East Europe) remained in recession.

In addition to weaker export potential and stronger pressures on local currencies, the spill-over effects to emerging markets were expected to manifest most through lower inflow or withdrawal of foreign capital. However, these effects were not sufficiently intense in 2009 to induce a major deepening of the recession.

A relatively fast turnaround in global economic trends came about as a result of swift and coordinated action of fiscal and monetary authorities in a number of countries (notably advanced). Governments approved unprecedented fiscal stimulus packages to loosen paralysed channels of credit and rescue banks from collapse. The US stimulus package reached USD 787 bln and the Chinese USD 586 bln (intended for investment into large-scale infrastructure projects). At the same time, central banks eased their monetary stance and cut their policy rates to historical lows. The largest of them, such as the Fed and the ECB, expanded their balance sheet positions considerably to pump liquidity into the system. Further out, central banks of advanced economies (Japan, USA, UK and euro area) took a number of unconventional monetary policy measures such as the purchase of government collateral-backed securities or bonds, or even purchase of corporate bonds, all with a view to breathe life back into global financial markets.

Graph 1.1. Real GDP growth and world trade volume
(annual growth rate, in %)



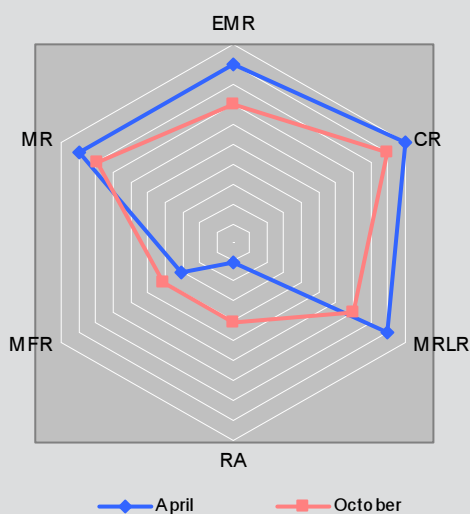
Source: *World Economic Outlook*. International Monetary Fund

The action taken by governments and central banks helped ease the panic, support the financial system and resuscitate private demand.

The global economic recovery in 2010 will be difficult and sluggish. According to the IMF's forecast released in October 2009, following 1% drop in 2009, the global economy will grow around 3% in 2010, which is significantly less than in the pre-crisis period when growth rates reached around 5%. With growth forecasts of up to 5%, which is 1.75 percentage points more than in 2009, emerging markets are seen as the global growth engine room. China, India and some Asian countries are expected to be the key drivers of growth, while other emerging markets will experience a modest rate, sustained by stimulus measures and improved conditions in foreign trade and financial markets.

The global recovery in 2010 will be fragile and under constant threat of being slowed down or halted altogether due to large and quite specific risks. They relate primarily to the withdrawal of fiscal and monetary stimuli that

Graph 1.2. Global financial stability overview (April and October 2009, index) (January 2007 = 100, weekly data)



Source: Global Financial Stability Report, IMF

Legend:

MR - macro economic risk

EMR - emerging market risks

CR - credit risk

MRLR - market and liquidity risk

RA - risk appetite

MFR - monetary and financial risk

helped stabilise the economy, but did not ensure a sustainable recovery of private demand. Other risks are associated with uncertainties regarding oil prices, geopolitical developments and growing protectionist tendencies. It should be noted that the quickly restored macroeconomic stability is extremely vulnerable as the global demand remains heavily dependent on government support. Real estate prices are still on a downward path in a large number of countries, and there are many challenges in the banking sector remaining to be addressed.

Demand is expected to stay weak in advanced economies, particularly those with overindebted population and sharply contracted bank lending. At the same time, the growing public debt of these countries may hinder new borrowing without which their economies clearly can not remain fully functional. Investors are already concerned about the public debt and budget deficits run by Greece, Italy, Spain and Portugal, which fuels the risk of default.

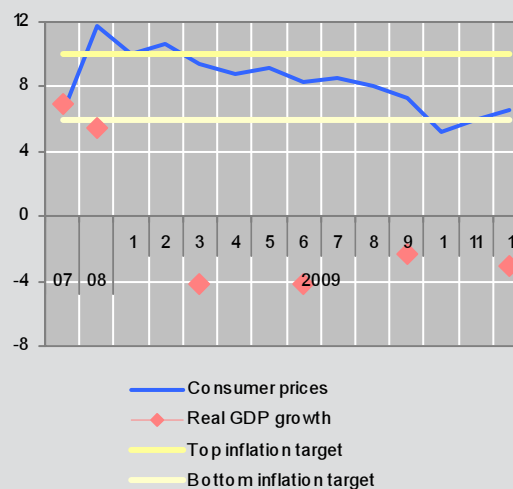
There is even a possibility that the UK and the US will also face a much higher cost of borrowing.

Heightened uncertainties in Serbia's immediate surroundings could give rise to depreciation pressures for the euro, primarily because of the likelihood of further fiscal stimulus to the above eurozone members from both the ECB and the IMF.

2. Domestic macroeconomic environment

The spill-over of the global economic crisis to Serbia in 2009 led to a 3% contraction of its gross domestic product. The main driver behind GDP decline was the badly dented aggregate demand, foreign and domestic alike, which gave rise to negative expectations regarding economic recovery and growth prospects. In terms of direct impact, foreign demand provided a positive (and admittedly less significant) contribution to GDP growth (11.6%). Indirectly, however, its decline fed through into considerably lower net exports, both in real (36.8% p.a.) and potential terms, inducing a slump in industrial production and a rise in the unemployment rate. On the domestic demand front, it was the rising unemployment (by 2.5 pp, or

Graph 1.3. GDP and price movements (annual growth rates, in %)



Source: National Bank of Serbia.

from 13.6% to 16.1%) resulting from slashed production volumes that dragged the economy down.

Probably the best indicator of the scale of economic downturn in 2009 is the statistics of crisis-induced government assistance packages, i.e. subsidised loans for enterprises, approved since late Q1 2009. While short-term liquidity loans hold a dominant share (RSD 3.3 bln in interest subsidies), subsidised investment loans to enterprises account for a mere 1.2% of the total amount of subsidies. It follows that the downside risks to output are quite significant and for the most part linked to external factors, i.e. the intensity of the spill-over of the crisis.

Given that the GDP decline was driven primarily by dampened aggregate demand, there were no major inflationary pressures in 2009 on account of demand for goods and services. Inflationary pressures came from prices under government regulation (3.9% contribution), resulting in a 6.6% inflation at year-end (lower bound of the target band). There was no spill-over of inflation from the world markets either as oil prices rose rapidly throughout the year (the strongest growth was recorded for Brent oil – as much as 65%).

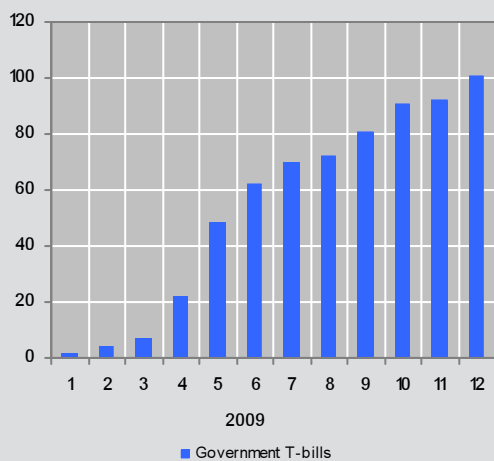
The effects of macroeconomic disruptions are clearly visible in the balance of payments positions and in the

changed structure of external debt. As a much steeper decline was recorded in imports than in exports of goods in 2009, the deficit on trade in goods narrowed down. Together with the real depreciation of the dinar in late 2008 and early 2009, this led to a dramatic reduction in the current account deficit – from 17.1% to 5.7% within the span of one year only. Foreign direct investment also fell noticeably (by around 30%) from the previous year reflecting the absence of major privatisations that propelled FDI growth in the prior period. Positive developments were registered in the flow of remittances, which rose by one third relative to 2008 even though they were expected to decline in the context of the global economic crisis.

External debt recorded a mild annual increase of 4.5%, but its structure in terms of maturity and type of borrower underwent significant changes. The increase in external debt was for its major part due to the government disbursement of a portion of SDR package from the IMF, which came to EUR 1.11 bln at year-end.

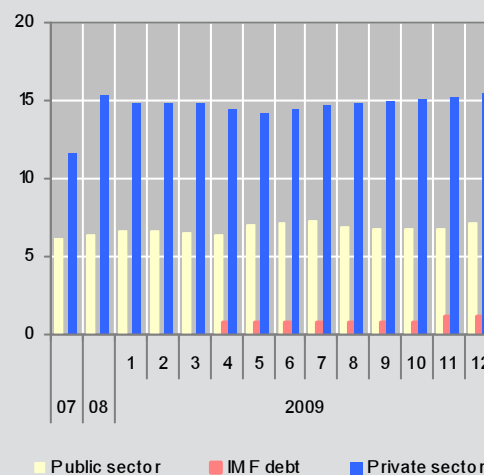
In addition to the disbursement of the IMF loan intended to support the foreign exchange reserves (as a guarantee of stability of the exchange rate of the dinar) and cover a part of the budget deficit, the Republic of Serbia also borrowed domestically by issuing treasury bills for the

Graph 1.4. Stock of government T-bills
(nominal value, RSD bln)



Source: National Bank of Serbia.

Graph 1.5. Foreign debt movements
(EUR bln)

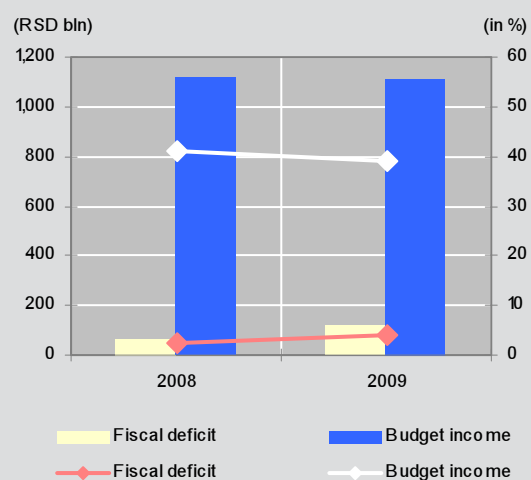


Source: National Bank of Serbia.

purposes of budget deficit financing. Climbing from 2.4% to 4.2% of GDP or from RSD 66 bln to 120 bln, government debt practically doubled in 2009 due above all to an increase in public spending and a concurrent decrease in budget revenue by almost RSD 4 bln.

Though some risks remain, Serbia's macroeconomic indicators for 2009 are relatively stable compared to those of other crisis-affected countries. Changes in the exchange rate of the dinar reflect very quickly on the highly indexed bank loan portfolio and expose mostly unhedged borrowers to significant risks.

Graph 1.6. Fiscal movements



Source: National Bank of Serbia

II. Non-financial sector

1. Household sector

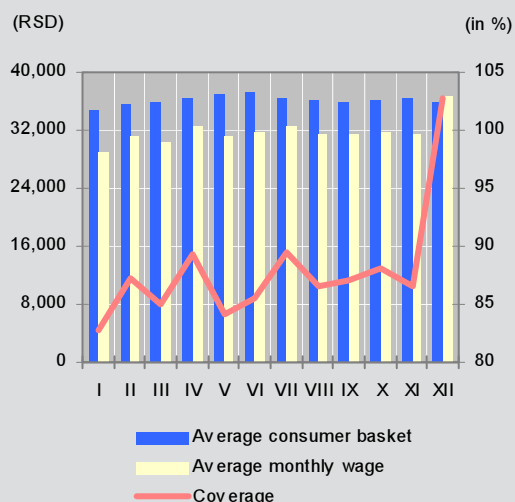
The freeze on public sector wages, which hold a significant share in total wage bill, and levying of additional income tax in Q2 2009 contributed to the stagnation of average net wages in the Republic of Serbia. This induced a slowdown in the coverage of the consumer basket by average earnings that displayed positive trends since the beginning of the year.

At consolidated level, household lending was at a standstill since end-2008 in both real and nominal terms.

The only category of loans showing a distinct trend of recovery were consumer loans. They rose steadily throughout the year, largely due to government subsidies for the purchase of domestically produced goods, introduced in Q1 2009.

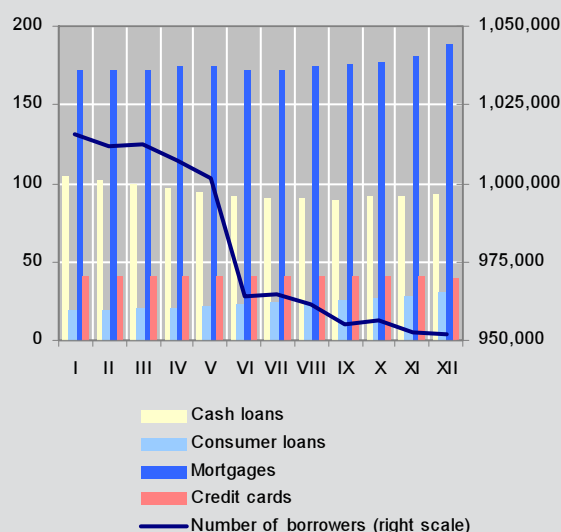
Changes in banks' balance sheets attributable to cash loans are a clear indicator of the effectiveness of NBS measures, notably the abolishment of the asset classification requirement to downgrade receivables under household loans uncollateralised with a minimum 30% deposit (Section 2a of the Decision on Temporary Measures for Preserving Financial Stability in the Republic of Serbia adopted on 22 December 2008). From Q3 onwards, the growth in cash loans lost pace in nominal terms. In real terms, however, in addition to inflation and exchange rate gains/losses, we must take into account the fact that the volume of collateral deposits declined in Q3 by around RSD 10 bln y-o-y and by RSD 14.5 bln relative to end-2008. As cash loans account for the dominant share of cash collateral deposits (with credit cards and cash collateral-based loans accounting for an insignificant share) and nearly 90% of the cash loan portfolio is long-term, it can be

Graph 2.1. Coverage of consumer basket by income in 2009



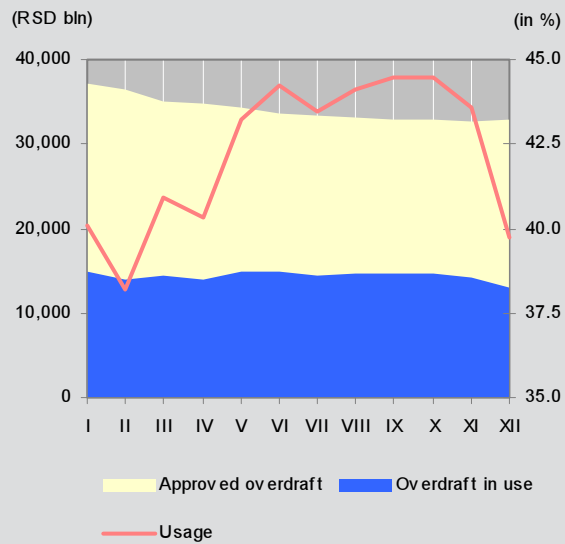
Source: Statistical Office of Republic of Serbia, Ministry of Trade and Services

Graph 2.2. Household lending in 2009 (RSD bln)



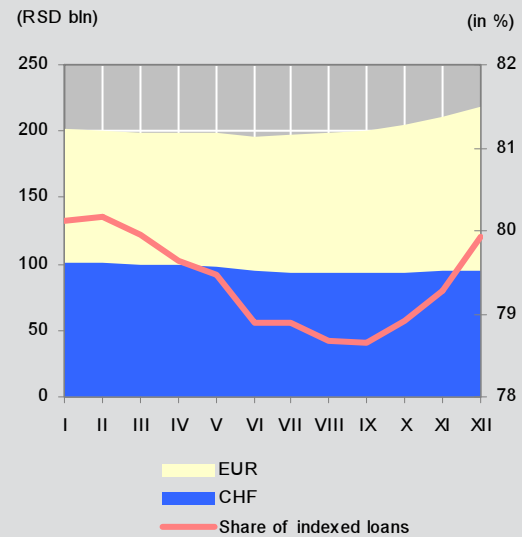
Source: National Bank of Serbia, Association of Serbian Banks

Graph 2.3. Usage of overdraft facilities in 2009



Source: National Bank of Serbia, Association of Serbian Banks.

Graph 2.5. Indexation of household loans in 2009

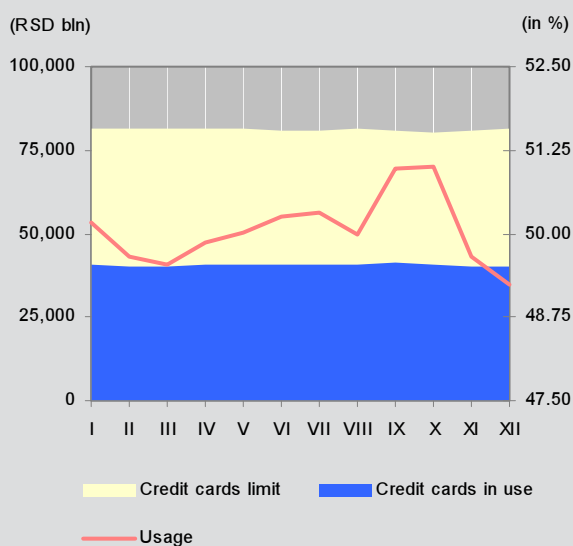


Source: National Bank of Serbia.

concluded that the outflow of collateral deposits at constant lending volumes is an indicator of the refinancing of gross debt under cash loans, as well as of an evident increase in net indebtedness under this type of loans.

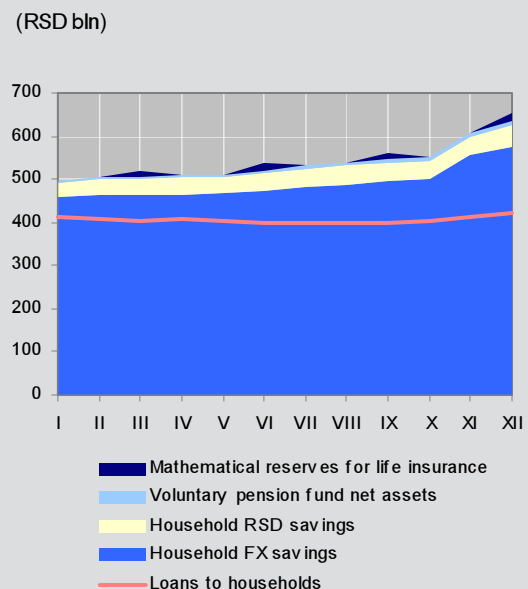
To make up for the deficit of funds, households continued relying on current account overdraft facilities. The usage of overdraft facilities approved rose from 40% in 2008 to 45% by mid-2009.

Graph 2.4. Usage of credit cards in 2009



Source: National Bank of Serbia, Association of Serbian Banks.

Graph 2.6. Net household position towards the financial sector in 2009



Source: National Bank of Serbia.

As dinar lending increased, notably consumer and cash, the share of indexed loans headed down. Change in the volume was also accompanied with a change in the currency structure – the share of CHF-indexed loans in the indexed loan portfolio shows a constant nominal decline.

In terms of credit-deposit transactions with the financial sector under NBS supervision, households reinforced their net creditor position in 2009, which became particularly visible after the November increase in foreign currency savings (by EUR 392 mln, net). At the same time, a low level of deposit concentration by amount shows that the solvency of the sector as a whole can not be considered as being under threat.

Overall, keeping the freeze on public sector wages and pensions further on will, due to higher cost of living, put households' liquidity under additional strain, especially if citizens continue to fill in the gaps in their personal budgets by tapping on current account overdrafts, credit cards and cash loans, which represent the most expensive types of borrowing.

2. Corporate sector

The year 2009 saw a mild decline in corporate borrowing. A stronger increase was recorded only for short-term foreign borrowing in the two quarters following the spill-over of the crisis (September 2008).

The debt servicing capacity of the Serbian economy was threatened most during the first and second quarters of 2009 due to rapid deterioration in the corporate portfolio i.e. growth in NPL value adjustments relative to end-2008 of 32% in Q1 and 43.6% in Q2. Nevertheless the corporate sector managed to recover by the end of the year primarily owing to the government fiscal stimuli and central bank's monetary easing.

The sources of finance for the corporate sector remained broadly stable both in the domestic banking sector and cross-border. Given the early 2009 estimates of around EUR 5.5 bln falling due for payment under cross-border loans in the course of the year, the situation at end-2009 shows that Serbian companies had no major problems in rolling over or refinancing their debt, which only reinforces the assumption that cross-border loans are disbursed by the best performing companies within the portfolio.

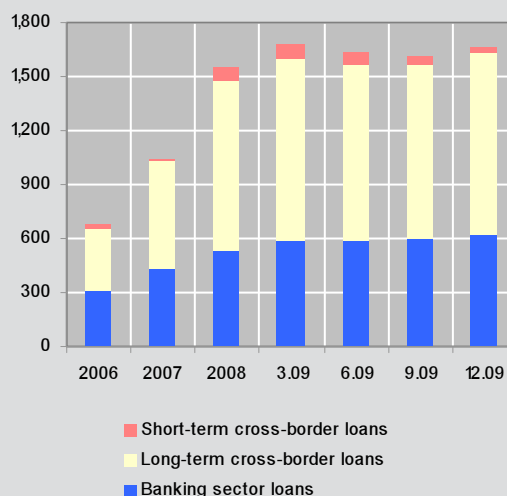
Graph 2.7. Industrial production in 2009 (in %)



Source: National Bank of Serbia.

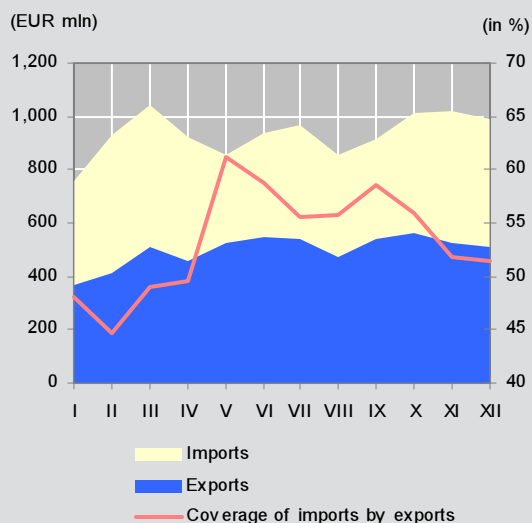
At the same time, government package of measures points to a modest potential for economic recovery as most of disbursed loans are those for liquidity purposes, while investment loans account for a negligible share.

Graph 2.8. Sources of funding of the Serbian corporate sector (RSD bln)



Source: National Bank of Serbia.

Graph 2.9. Exports and imports in 2009



Source: National Bank of Serbia.

Corporate annual reports were not released at the time of this Report and to get a better insight into the overall state of the economy, we analysed the claim enforcement figures, which in addition to loan receivables also tell a lot about intercompany indebtedness.

Of the total amount of outstanding debt on blocked debtor accounts - RSD 261 bln, RSD 108 bln related to accounts blocked for over three years and additional RSD 28 bln to

Table 2.1. Enforced collection in 2009 (RSD mln)

First order priority (state as creditor)	73,124
Second order priority (collection based on court rulings)	47,042
Third order priority (intercompany receivables under bills of exchange)	
Banks	90,101
Intercompany	51,838

Source: National Bank of Serbia.

accounts blocked for over two years. With RSD 94 bln debt of companies blocked for over a year, the cumulative debt of companies illiquid for 365 days and more reached RSD 230 bln. The fact that as much as 74.3% of debt refers to companies whose accounts are blocked for over 365 days shows that there was no major worsening in 2009 for the Serbian economy as a whole, but rather worsening of the consequences in some of its segments. We are talking mainly about the segment that bore the initial brunt of the crisis - wholesale/retail trade and real estate activities. This segment grew on the back of credit expansion in the previous years and became overindebted, which is not surprising given the long-term unsustainability of its business model.

Additional outstanding receivables in enforced collection procedure came close to RSD 60 bln in 2009, accounting for 0.67% of the corporate balance sheet assets or 1.5% of corporate equity in 2008.

The situation described above calls for a swift and sweeping reform of the regulatory framework governing the status of debtors, i.e. upgrade of the bankruptcy procedure.

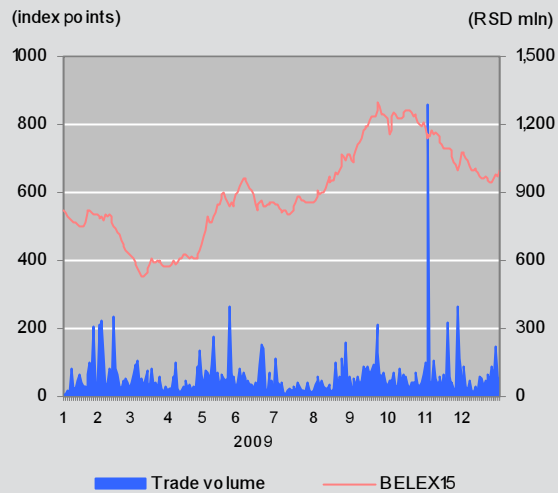
3. Capital market

As in the rest of Southeast Europe, the capital market in Serbia still shows no signs of a stronger recovery. The trend of foreign capital withdrawal continues, while high concentration shows that investors in the Belgrade Stock Exchange are by far more selective than before.

The fallout from the global economic crisis, which began in mid-2007 and reached full swing in Q4 2008, is still visible in the Serbian capital market.

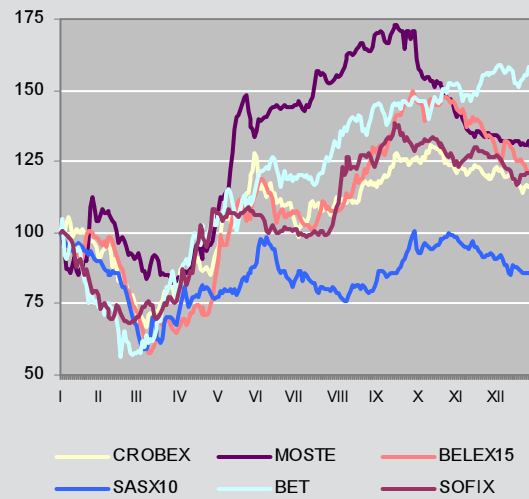
Based on the drop in turnover in the shares of Serbian companies in the BSE (down by nearly 40% from 2008 and by as much as 70% from 2007), it can be concluded that the crisis deepened relative to the previous year. However, based on the annual growth in BSE indices, we are tempted to conclude that the process of recovery for the best quality shares has started and that the initial

Graph 2.10. BELEX15 and BSE trade volume



Source: BELEX.

Graph 2.11. Index movements on regional exchange markets in 2009 (index points)



Source: BELEX.

capital flight was mainly that of speculative capital, typically present in emerging markets and in our region.

Continued rise in the share of foreign investors on the supply side and a concurrent drop in their share on the demand side are seen as a matter of concern and an indicator of an ongoing withdrawal of foreign investors from the Serbian market, especially in view of the high degree of concentration of the most traded securities in the BSE.

Exceptionally high degree of concentration of a small number of shares driving the BSE turnover clearly shows that the confidence of both domestic and foreign investors in the Serbian market is not fully restored yet. This is also confirmed by the fact that no major increase in trading volumes came about despite amendments to NBS regulations permitting insurance companies and VPF management companies to invest, under certain conditions and in a limited amount, in shares that are not on the A listing of the Belgrade Stock Exchange.

III. Financial sector

1. Banking sector

Liquidity risk

After sustaining significant strains in October 2008 and February 2009, banking sector liquidity rebounded by the end of Q1 and remained solid until the end of the year. Dinar and foreign exchange liquidity of banks was additionally propped up by special facilities enacted to support the country's financial stability.

Though the entire amount of household deposits withdrawn in October/November 2008 was returned to bank accounts in 2009, the Serbian banking sector remains substantially reliant on foreign financing.

As the situation in the markets of local banks' parent institutions did not improve much in early 2009, concerns arose as to the scope for their further support to subsidiaries in Serbia. For this reason, the National Bank of Serbia decided to supplement the measures enacted immediately after the spill-over of the crisis with the Financial Sector Support Programme (FSSP) – commonly referred to as the Vienna Initiative. The Vienna Initiative yielded results: foreign banking groups, whose subsidiaries operate in the territory of Serbia, maintained, and even mildly increased their credit exposure to domestic legal entities in 2009. The Programme actually represents a logical extension of the central bank's lender-of-last-resort function, defined in September 2008 amid heightened financial market risks.

The above measures led to an improvement in the already comfortable liquidity position of Serbian banks as reflected in their stepped up investment into NBS repo securities and short-term RS bonds. In 2009 none of the banks used NBS facilities introduced with a view to strengthening the supply of pre-emptive channels of liquidity.

After temporary worsening due to repayment of short-term loans disbursed in late 2008 and even net outflow of foreign exchange savings, in February 2009 all liquidity

indicators trended upwards. In addition to the relaxation in international liquidity criteria, the improvement in banking sector liquidity (notably dinar) was brought about by government and central bank measures, in particular changes in the allocation of the dinar share of foreign exchange required reserves for banks signatories to the FSSP. Buoyant dinar liquidity, that reached its peak in August 2009, is also evidenced by the reduced volume of trading in the overnight market.

Liquidity indicators reported by banks also attested to the stability of their liquidity position. Namely, average monthly liquidity ratio for the banking sector as a whole was maintained significantly above the prescribed minimum (1). The lowest this ratio ever got during the year was in October when it reached 1.54, but still remained well above the regulatory minimum.

As dinar liquidity strengthened, the structure of banks' balance sheet changed, reinforcing the share of liquid holdings within total assets of the banking sector. A mild decrease in this indicator was recorded only at the close of Q1, but even then liquid holdings made up as much as 30% of total banking sector assets, i.e. they covered approximately 60% of all deposits and over 100% of household deposits. In the second half of the year, this liquidity indicator trended up and at end-September, exactly a year after the first liquidity shocks, liquid assets came to account for as much as 34% of total assets just as in the year before. Liquid assets, composed of cash and cash equivalents, FX required reserves with the NBS and loans under repo transactions, covered more than half of total deposits with the banking sector at all times in the course of 2009, and at the end of the year as much as 57% of total and 117% of household deposits. Particularly important from the aspect of financial stability is the fact that liquid holdings were several times higher than household demand deposits (from end-Q3 even 3.19x higher), which secured the stability of the sector against potential reputational and other risks. Such structure of the banking sector balance sheet was largely conditioned by the still high risk premium and banks'

Table 3.1. Liquidity indicators

	2005	2006	2007	2008	III 09	VI 09	IX 09	XII 09
Average monthly liquidity indicator	2.1	2.4	2.1	1.8	1.9	1.8	1.8	1.9
Liquid assets/Total assets	0.30	0.42	0.38	0.32	0.30	0.32	0.34	0.34
Liquid assets/Total deposits	0.5	0.7	0.6	0.6	0.5	0.5	0.6	0.6
Liquid assets/Household deposits	1.1	1.7	1.4	1.2	1.1	1.2	1.2	1.2
Liquid assets/ Household on site and short term deposits	1.3	2.0	1.6	1.3	1.2	1.2	1.3	1.3

Source: National Bank of Serbia.

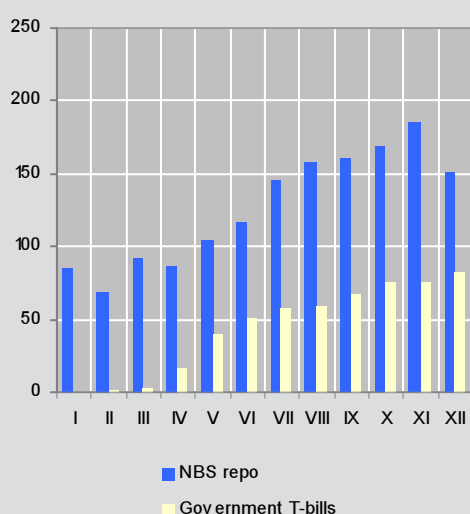
risk aversion. Namely, high risk aversion and still lingering uncertainties regarding further effects of the global financial crisis induced banks to invest a substantial amount of their excess dinar liquidity into risk-free securities, i.e. NBS repos and T-bills, rather than into loans.

In terms of maturity structure, the Serbian banking sector recorded an improvement relative to the prior period (2004–2008). Long-term investments had a sound footing

in the sources of finance, while liquid holdings covered around 70% of total deposits in the banking sector.

Reputational risk, as one of the key triggers of psychologically-induced withdrawal of household foreign exchange savings, lingered in Serbia in 2009 but did not materialise thanks to the adequate reaction of foreign governments and their provision of liquidity and capital support to local banks' parent institutions, as well as thanks to the National Bank of Serbia's timely public campaign.

Graph 3.1. Stock of NBS repo and government T-bills in 2009
(RSD bln)

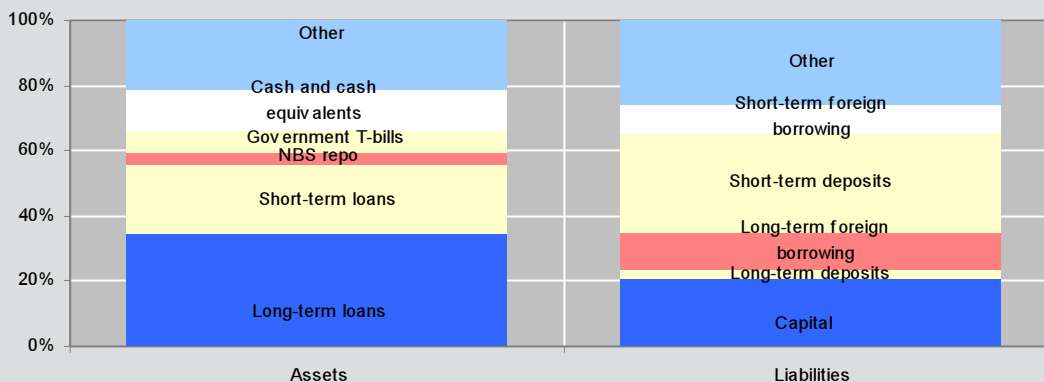


Source: National Bank of Serbia.

Banking sector liquidity was strengthened additionally by the central bank's measures geared at boosting dinar and foreign exchange liquidity.

Aware of the significance of liquidity supply for the resilience of the financial system as a whole, the National Bank of Serbia targeted a set of measures within the Special Financial Stability Support Programme at boosting banks' liquidity and facilitating their liquidity management. The National Bank of Serbia actually created a framework providing banks with access to dinar and foreign exchange sources of liquidity by extending dinar loans with maturity of up to one year and by organising foreign exchange swap transactions in the interbank foreign exchange market. Short-term liquidity loans are extended against collateral of securities issued by the central bank or by the Republic of Serbia, as well as against bank's allocated foreign exchange reserves, receivables under mortgage loans, and receivables from the Republic of Serbia and budget beneficiaries. On the other hand, foreign exchange swap trading works in both directions and provides access to both foreign exchange and dinar liquidity.

Graph 3.2. Banking sector asset-liability maturity matching in 2009



Source: National Bank of Serbia.

Sources of funding for the banking sector

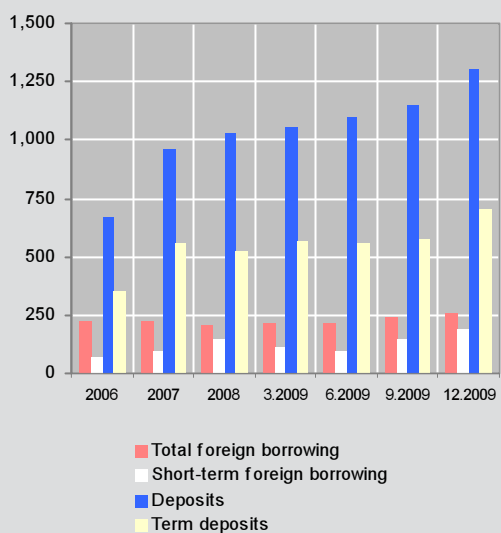
Banks stepped up their efforts in terms of strengthening the deposit base and reducing reliance on foreign sources of funding, which in 2009 remained short-term and costly.

After Q1 2009 that saw the end of net outflow under foreign exchange savings and foreign borrowing, banks strengthened their deposit base and rolled over their cross-border loans.

As expected, given the persistent uncertainties about the possible further effects of the global financial crisis and the accordingly changed terms of borrowing from parent financial institutions, banks' foreign borrowing was mainly short-term in 2009.

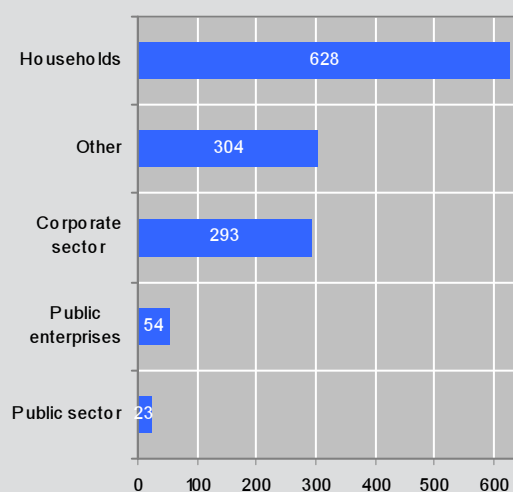
The increase in total deposits was aided by the corporate sector, whose deposits were mostly short-term due to low liquidity and bleak outlook for economic growth. In a bid

Graph 3.3. Overview of the dominant banking sector sources of funding (RSD bln)



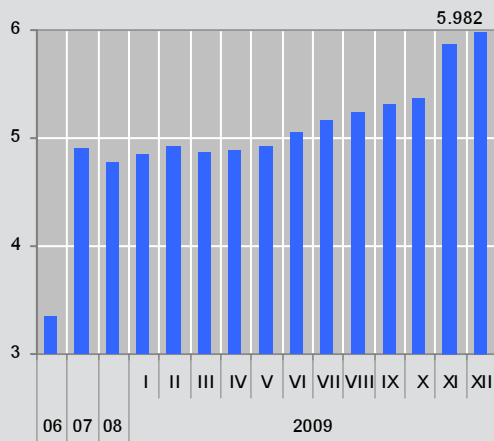
Source: National Bank of Serbia.

Graph 3.4. Sectoral structure of deposits on 31 December 2009 (RSD bln)



Source: National Bank of Serbia.

Graph 3.5. Household foreign currency savings (EUR bln)



Source: National Bank of Serbia.

to ensure additional stable and longer-term dinar sources of funding, banks raised the interest rate on long-term dinar deposits, but this failed to produce the expected results.

Following a major net outflow in Q4 2008 and Q1 2009, household foreign exchange savings steadily increased

until the end of the year, mirroring the strengthening of confidence in the banking system. New foreign exchange savings hit record highs after the Savings Week (October/November) and returned to their pre-crisis levels. Already in December, foreign exchange savings reached EUR 6 bln, reflecting not only rebuilt confidence, but also attractive interest rates offered by banks during the year. Domestic deposits played a very important role in a situation where international markets were still jittery and the cost and maturity of foreign borrowing unfavourable. The increase in total deposit potential was also spurred by the record high inflow of remittances (close to EUR 3.5 bln), which largely bolstered the deposit capacity of households. Contrary to expectations, remittances did not contract amid global economic crisis, and what is more, proved to be a very important factor contributing to the country's financial stability through both balance of payments and banking sector's deposit base growth potential.

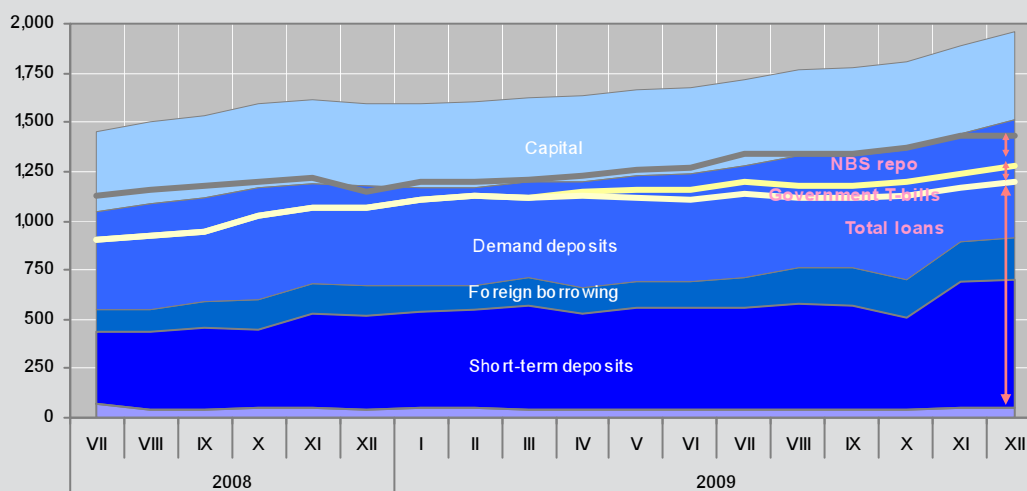
On the other hand, problems with regard to the deposit maturity structure continued. Term deposits showed an increase, but were mainly short-term – up to six months. Though the maturity structure improved, as in the previous year, demand deposits made up half of the total. The coverage of total loans by term deposits increased by around 10 pp in 2009, but remained around 6 pp lower than at end-2007. The coverage of loans by long-term domestic deposits displayed an identical trend.

Tabela 3.2. Loan to deposit ratios

	2006	2007	2008	III 09	VI 09	IX 09	XII 09
Total loans/Total deposits (LTD)	0.9	0.9	1.0	1.1	1.0	1.0	0.9
Total loans/Term deposits	1.6	1.5	2.1	2.0	2.0	1.9	1.7
Household loans/Household deposits	0.7	0.7	0.8	0.8	0.8	0.7	0.7
Long-term deposits/Long-term loans	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Source: National Bank of Serbia

Graph 3.6. Banking sector funding and lending
(RSD bln)



Source: National Bank of Serbia.

With the capital market in the doldrums both in terms of overall growth and trading volumes, and with the sluggishly-growing VPF and life insurance markets, banking deposits seem to have the brightest growth outlook in the short run.

Further strengthening of banking sector stability requires longer-term sources of funding, foreign credit lines and domestic deposits alike, and a better funding-lending maturity matching by Serbian banks.

Credit risk and portfolio quality

Bank lending recorded a mild recovery in 2009. A potential credit crunch was avoided primarily owing to timely action by the National Bank and the government. Credit risk remained dominant in the banking sector, while deterioration of the portfolio quality continued.

Lending activity

Rapid credit expansion that started at end-2004 came to a halt in the last quarter of 2008. Lending has since been recording marginal but nonetheless real growth measuring in 2009 around 6.8%. The reasons behind such trend are well-known: negative macroeconomic prospects dampened

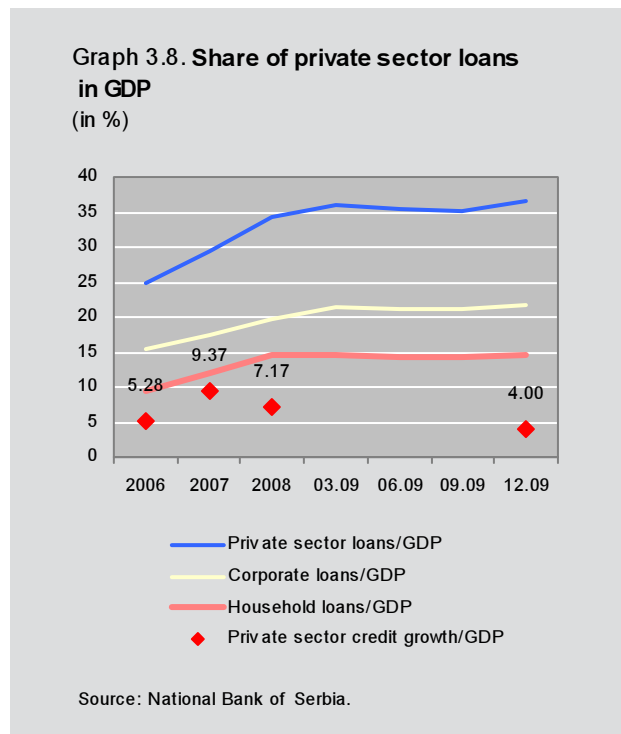
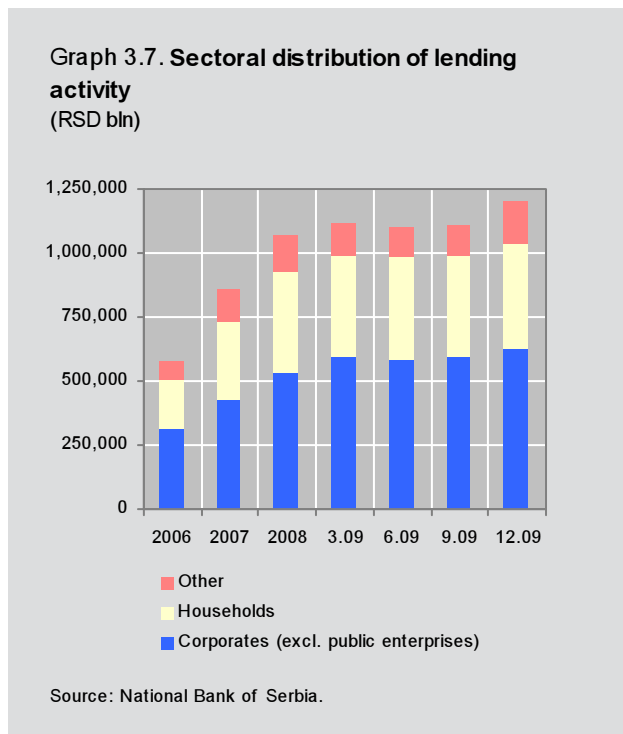
loan demand, while strained access to funding and lower risk appetite occasioned a reduction in loan supply.

It was a lower risk appetite of banks that led to the rechanneling of their increased dinar liquidity to the public sector, i.e. Republic of Serbia. At year-end, government lending, via T-bills, accounted for as much as 6.8% of total banking sector lending, or as much as 19.5% NBS repo securities included, which is nearly 12 pp more than at end-2008.

Excluding lending to the government and public enterprises, the key driver of (slower) lending growth in 2009 was lending to the corporate sector.

Though lending to the public sector is safe from the aspect of banking sector stability and has improved the quality of banking sector portfolio, lending trends should be analysed above all from the aspect of lending to households and companies as only these two sectors can bolster demand and create preconditions for a sustainable economic growth.

At end-2009, total lending showed a nominal increase of 12.4% relative to end-2008. However, taking into account the 8.2% depreciation effect on the indexed portion of the



portfolio, lending recorded a real growth of nearly 6%. Corporate lending remained broadly unchanged from the previous year – at end-2009 it stood at RSD 622 bln, accounting for more than 50% of the overall loan portfolio. However, other lending to the real sector included, this type of loans increased their share in total loan portfolio by 2 pp to 65% due to increased government lending. Real growth in corporate lending (5.6%), driven largely by government subsidies, was financed principally from banks’ dinar sources, i.e. corporate and household dinar deposits, and not from foreign borrowing.

No major growth was observed in lending to households in 2009. The nominal drop taking place until mid-year came to a halt owing to the strengthening of demand in the subsidised segment of lending activity – growth in consumer and housing loans approved with government support in the second half of the year. Household lending grew by mere 6.6% in nominal terms and stagnated in real terms (negligible growth of 0.07%), which resulted in the contraction of its share in total lending from 36.8% at end-2008 to 34.9% at end-2009.

Even though it was realistic to expect that the growth in the share of private sector loans in GDP would slow down amid softened lending activity, it continued up (albeit negligibly) due to the economic downturn. From 2004 to 2008 the growth in loans to the private sector came at over 9% of GDP, which could be considered a borderline

value for rapid expansion, whose abrupt curtailment could have serious implications for financial stability. In 2009 the growth in loans to the private sector decreased to 4% of GDP, implying lesser risks to financial stability.

Portfolio quality

Negative macroeconomic developments, the slowdown in economic activity, the weakening of domestic currency, high risk aversion of banks and worsening conditions in the labour market, all weighed down on the quality of bank credit portfolio in 2009.

Its deterioration came as no surprise. The debt servicing capacity of companies and households fell victim to slackened economic activity, slower wage growth and weaker dinar. Additional difficulty was reflected in the already mentioned extremely procyclical behaviour of banks and their increasing cautiousness, both in terms of refinancing existing liabilities and extending new loans. During the period of expansion such behaviour had led to the underestimation of risk, but at the low point of the cycle it caused risk overestimation and banks’ reluctance to lend, triggering a worsening in the credit portfolio and an increase in the share of NPLs.

According to data reported by banks, at end-2009 the share of net NPLs in total lending amounted to 8.53%, up by 3 pp from 5.30% at end-2008. In absolute terms, net NPLs reached RSD 99 bln.

The corporate sector (excluding public enterprises), the most important one in terms of the volume of loans approved and the share in total NPLs, held an 11.8% share of NPLs in total loan portfolio at end-2009. Exacerbation in the corporate portfolio was driven by several factors. The decline in liquidity, caused by unfavourable currency and maturity structure of the corporate balance sheet, gathered pace under the impact of dinar's depreciation that started in October 2008. Though the currency structure of the domestic corporate loan portfolio was not as unfavourable as that of the household portfolio (around 70% of corporate loans are FX-denominated), it must be taken into account that stepped up borrowing by the real sector in the previous years was entirely FX-denominated and that the weakening of the dinar had dealt a harsh blow to the liquidity of the corporate sector. Import-oriented and mostly unhedged companies found it difficult to collect existing receivables, as well as to finance current liabilities since sources of liquidity were drying up both in the country and abroad. Their debt servicing capacity declined, pushing the share of NPLs up ever since October 2008. Even though there are no reliable data on cross-border NPLs, it can be reasonably assumed that they have increased, which could also reflect on the domestic banking sector that issued guarantees for around 30% of cross-border loans disbursed by companies.

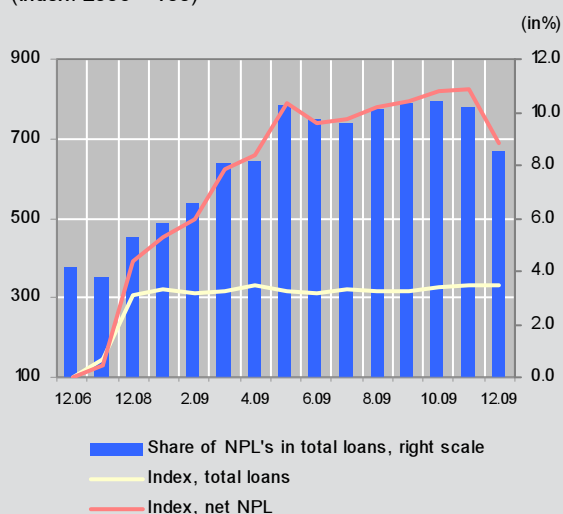
Across industries, construction and manufacturing seem to have suffered the gravest consequences in terms of their debt servicing capacity. This was expected given the

low level of FX hedging in these two industries and the fact that they have registered the steepest drop in activity since October 2008. For these reasons, it was very hard to find new sources of funding. Disheartened by the negative trends prevailing in construction and manufacturing since October 2008, banks and foreign creditors were reluctant to commit new funding. In fact, they made it difficult for companies operating in these two industries to roll over their debt, or if they did permit it, the rollover was performed at considerably higher margins thereby putting additional strains on corporate liquidity. Such trend was slowed down to a degree by government support through the subsidised liquidity loans, as well as by the easing of NBS regulatory requirements in 2009. Namely, the National Bank of Serbia introduced certain facilities for restructuring existing liabilities, which started to produce visible effects from end-Q3 2009. The write-off of receivables under NPLs bore down on banking sector profitability in the course of the year as losses on NPLs rose in gross amount by as much as RSD 37 bln on 2008, or by RSD 10 bln excluding the item *reversal of indirect write-offs*.

Household loan portfolio also deteriorated in 2009, though much less than that of the corporate sector. At end-2009, NPLs made up 4.08% of total net household lending compared to 3.79% in 2008. As household loan portfolio is for its major part (nearly 80%) indexed to the euro or Swiss franc, the weakening of the domestic currency, coupled with stagnation in nominal wages,

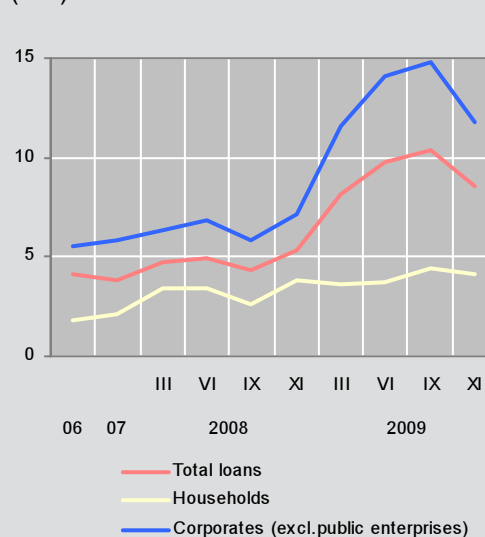
Graph 3.9. Lending activity slowdown effect on NPL share

(index: 2006 = 100)



Source: National Bank of Serbia.

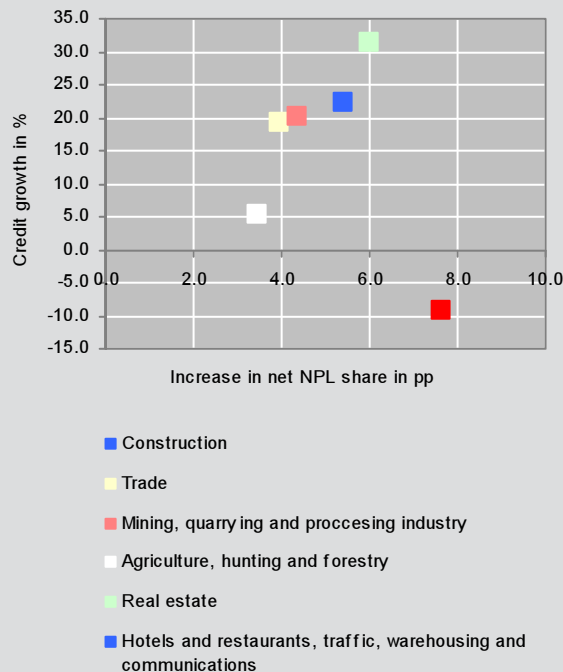
Graph 3.10. Share of NPLs in total loans (in %)



Source: National Bank of Serbia.

Graph 3.11. Sectoral distribution of net corporate NPLs

(31 Dec 2008 – 31 Dec 2009)



Source: National Bank of aSerbia.

substantially increased the burden of loan repayment. Analysis by type of loan shows that the share of NPLs increased most in consumer and cash loans, while credit discipline in the repayment of housing loans was maintained quite high. This is very important from the aspect of financial stability as these loans account for 48% of the household portfolio. The share of NPLs in total loans did not rise dramatically in 2009; it only displayed significant volatility, which stabilised by the end of Q3 mostly owing to the central bank's easing policy.

Activities agreed under the Vienna Initiative were critical to slowing the deterioration in the quality of receivables. Pursuant to regulations adopted in early 2009, some of the eligibility requirements for using special facilities supporting the country's financial stability were tied to banks' readiness to alleviate the burden of loan repayment to borrowers who are current on loan repayment schedules but are experiencing temporary difficulties due to the effects of the financial crisis. To qualify for special facilities, banks were required to enable their clients to convert their FX-denominated or foreign currency clause-indexed loans into dinar loans free of charge. Furthermore, banks who accepted the initiative also

committed to changing the repayment terms by extending the repayment period by at least 12 months, or by at least one fifth of the remaining repayment period, in order to ensure a reduction in monthly instalments that borrowers have to pay, or to change the repayment terms by reducing the borrower's monthly obligation by at least 20%.

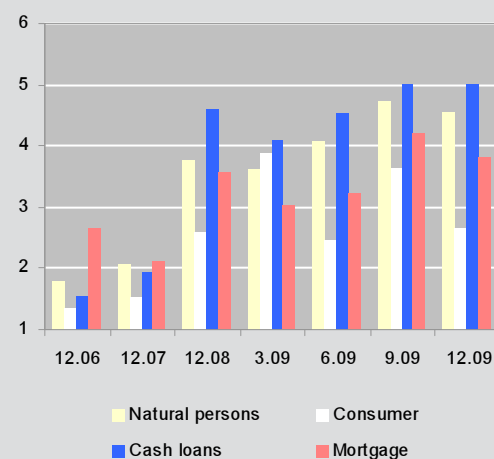
The slowdown in lending activity also contributed to the increase in the share of NPLs in total lending.

We noted several times in earlier issues of *Financial Stability Report* that the share of NPLs in total lending is not the best indicator of asset quality in times of rapid credit growth given that the numerator for the calculation was the stock of loans that was rising at an incredible pace in absolute terms. On the other hand, as credit statistics in Serbia are rather short and problems in debt servicing usually arise later in the loan repayment period, the newly-extended loans were often classified into lower-risk categories.

A similar rule applies in periods of a marked slowdown in lending activity like the one that began in October 2008. In such conditions the upward trend in the numerator slackened significantly, based on which one might be tempted to conclude that the quality of the portfolio deteriorated abruptly, which was not fully the case.

The quality of the portfolio deteriorated perceptibly, but not to the degree indicated by the ratio of NPLs to total lending. By looking at the absolute growth in these loans,

Graph 3.12. Net household NPLs - breakdown by type of loans
(in %)



Source: National Bank of Serbia.

we can see that the deterioration trend in the portfolio of loans of certain types or sectors had started before the October turmoil and that the effect of that turmoil on portfolio quality and the deterioration trend referred to above were not concurrent.

The most recent data for the rest of the region (also undergoing a phase of rapid credit expansion before the crisis) point to similar trends in terms of bank portfolio quality. In the case of Serbia, though rising rapidly, NPLs are still fully covered with reserves for potential losses. In December 2009, around 142% of gross NPLs were covered with reserves or as much as 168%, if reserves for losses on off-balance sheet items are also taken into account. Based on the above and the still very high capital adequacy ratio, we may conclude that a broader scale credit risk is not likely to threaten the stability of the overall banking sector, especially considering that there has been no further worsening in the consolidated portfolio since the enactment of prudential measures by the National Bank of Serbia in Q3 2009.

Capital adequacy and quality

Even though capital growth entered a deceleration phase in October 2008 and a hike in risky assets stepped up, no major changes in the capital adequacy ratio took place in 2009. The December ratio of 21.4% remains above the minimum prescribed by almost 10 pp. Stress tests confirmed that banking sector capitalisation is rather

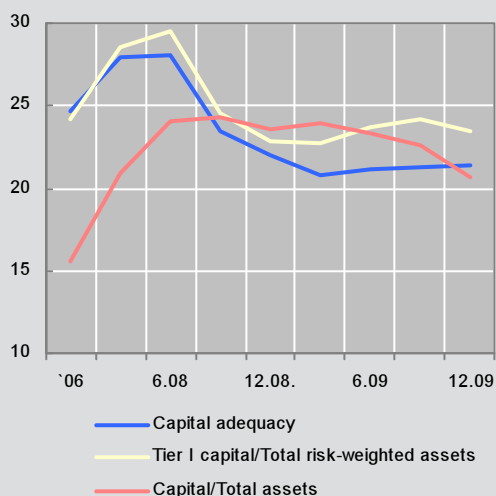
robust and that the sector is highly resilient to extreme shocks under a highly pessimistic scenario.

At end-2009, banking sector capital came at RSD 447 bln, up by 6.5% y-o-y. A slowdown in capital base growth (and changes in the majority of other ratios) began in October 2008, up to when the y-o-y growth rate ranged between 45% and 60%.

Strong banking sector recapitalisation in prior years, conducted in line with NBS's prudential regulatory requirements and serving as a back-up to expansionary lending activity, made domestic banks resilient to shocks from Q4 2008. Therefore, not even a slowdown in capital growth in 2009 or a rise in NPLs impaired solvency of the banking sector that featured a markedly slow lending activity. It is noteworthy that banking sector capital doubled since end-2006, with share capital up by 85%. Thanks to this, capital makes up today 20.7% of sector's balance sheet total.

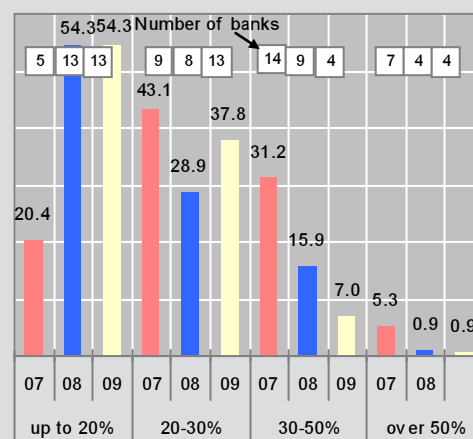
The capital adequacy ratio displayed a strong upward tendency for three quarters in a row, reaching 21.4% at end-December 2009. Still, the ratio was down 0.6 pp relative to end-2008 due to faster growth in risky assets than in capital. A downward trend in the capital adequacy ratio, evident in most countries in the region, was recorded in Serbia in 2008 as well, but not in response to sluggish growth in capital, but due to a change in regulations (July 2008) that involved the

Graph 3.13. Capital adequacy indicators (in %)



Source: National Bank of Serbia.

Graph 3.14. Capital adequacy - sectoral distribution (share of total assets, in %)



Source: National Bank of Serbia.

inclusion of additional risks in calculation of the ratio and extension of risk weights to some exposure categories, mainly in relation to mortgages and unhedged borrowers. The ratio, however, remains rather high – it exceeds Serbia’s minimum by almost 10 pp and is by as much as 13 pp higher than the minimum prescribed in the majority of European countries in full compliance with Basel II principles.

However, while the capital adequacy ratio of the sector as a whole remained high, it is indicative that concentration within the sector was modified. Namely, some banks experienced a sharp contraction in the ratio – by end-2009, banks with the capital adequacy ratio above 20% managed less than a half of the banking sector total assets vs. as much as 80% at end-2007.

Though capital adequacy ratio of the banking sector was rather high, it was quite important to continue monitoring bank capitalisation levels. In the course of 2009, stress test exercises, based on the IMF methodology, were conducted on several occasions in banks signatories to the Vienna Initiative. The stress testing will in future be regularly conducted and the test results will be available to the public on a consolidated basis. The testing completed with data as at March 2009 showed that the Serbian banking sector was well capitalised and required no pre-emptive recapitalisation. The tests showed that even under an extremely adverse macroeconomic scenario, the consolidated capital adequacy ratio (16 largest banks) would not fall below 16% in the course of two years, i.e. it would be high above the regulatory minimum of 12%. The same test was repeated with data for September 2009, this time under a revised macroeconomic scenario (24 banks). The new results confirmed strong resilience of the banking sector to macroeconomic pressures, i.e. that the composite capital adequacy would not fall below 15.5% under any circumstance.

Throughout the year, the ratio of capital to total balance sheet assets stood at 23%, reaching 20.7% at the year-end.

Banks remained committed to strengthening their capital base in 2009 and by retaining earnings from earlier years they increased their capital holdings by 6.5%.

Market risk

Local banks feature low exposure to the capital market, with foreign exchange risk still being the main element of market risk. As at December 2009, net FX exposure¹ of the banking sector remained low at 3.6% (vs. 14.8% in 2007 and 8% in 2008), mainly due to short positions taken in both euros and dollars.

Since July 2008 (when the new calculation methodology of FX exposure was introduced), the banking sector has featured a net long open FX position in all dominant currencies (the euro, Swiss franc, etc), except in the US dollar (other than for a very short period) and in currencies classified as “other” (other than for a very short period). A change in foreign exchange risk management occurred in Q4 2009. It was first recorded in October when the sector entered a continuously short open position in dollars on a consolidated basis, whilst since December, the same position has been maintained in euros as well.

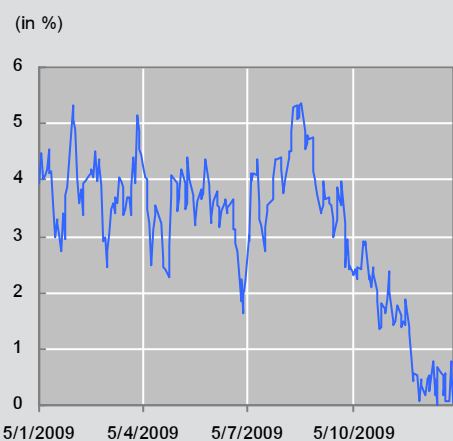
Over the last several years, banks’ total open FX position has stayed stable, owing mainly to operations of our banks with their parent institutions abroad. Namely, besides borrowing from their parent companies in foreign currency, banks entered with them into FX swap transactions in order to hedge their balance sheet currency position. This means that they engaged in spot purchase/sale of foreign currency for dinars (at the current date as the date of initiating the transaction) and at the same time in forward purchase/sale of foreign currency for dinars at the forward exchange rate (at a future date, date of concluding the transaction), where the forward segment of such transaction is an off-balance sheet item. This enabled the maintenance of the open FX position and FX exposure at a low level. Hedging was additionally bolstered by the introduction of NBS’s FX swap transactions as one of the key elements of the Vienna Initiative with banks.

Currency hedging is particularly important against the backdrop of global liquidity squeeze as access to external long-term FX funds has become strained and swap market liquidity and exposure limits reduced.

¹ Total risk FX position of a bank (a sum of net long and short open FX positions by selected currencies and precious metals) relative to the bank’s capital.

Graph 3.15. Net FX exposure of the banking sector

(1 Jan - 31 Dec 2009)



Source: National Bank of Serbia.

Reputational risk

With the rapid spillover of the crisis from developed European countries to Southeastern Europe and Serbia in September 2008, it became evident that the confidence in the stability of the Serbian banking sector largely depends on the reputation of parent banks of Serbian subsidiaries. Confidence in local banks was seriously

dented by the bankruptcy of a number of world banks and uncertainties that surfaced with respect to Austrian banks (Hypo Alpe Adria in particular) that are systemically important for the Serbian banking sector. However, owing to the timely response of government institutions, confidence was restored and evidenced by visible signs of recovery already in 2009.

Similarly, reputation of Greek banks may be dented by writings of economic analysts on fiscal problems in Greece. Namely, the enormous fiscal deficit of Greece, funded mainly by borrowing from the EU and IMF, could have an adverse impact on the Greek banking sector coming from three different sources. The primary impact may originate from contracted government spending and reduced household income feeding through to lower aggregate demand and slower economic growth. This may trigger deterioration in bank portfolios and lead to a rise in expenditure and possible losses. The secondary impact that would only reinforce the primary effect, may be triggered by weaker deposit potential and slackened lending activity, resulting in worsening of bank portfolios. The tertiary impact may reflect in banks' direct (substantial) exposure to Greek sovereign bonds whose value has been significantly reduced in the recent period on the back of the country's lowered international rating.

This notwithstanding, the adverse developments have not weighed down on operations of Serbian subsidiaries whose parent banks are headquartered in Greece.

Table 3.3. Serbian subsidiaries of Greek parent groups, 31 December 2009
(RSD mln)

Serbian subsidiaries of Greek parent groups	Total assets	Total assets of the group	Share of Serbian banks in the group	Serbian banking sector	Share in banking sector	Total capital	Cumulative ratios	
							Liquidity	Capital adequacy
Alpha bank Srbija	73,650	6,673,481	1.10%		3.41%	12,057		
Eurobank EFG	146,840	8,080,453	1.82%		6.80%	38,448		
Piraeus bank	44,923	5,204,844	0.86%	2,160,411	2.08%	10,836	1.98	22.99
Vojvođanska banka - NBG	87,113	10,873,215	0.80%		4.03%	22,342		
Total	352,526				16.32%	83,683		

Source: National Bank of Serbia, banks' financial statements for 2009.

There are four banks owned by Greek banks in Serbia which account for around 16% of the market. These banks are highly solvent and liquid at the capital adequacy and liquidity ratios of 22.99% and 1.98 respectively. Furthermore, not only have they not slowed their lending activity after the fallout of the global or the Greek crisis, but have even intensified it (by around 8.2%). Besides, these four banks are not dependent on their parent banks whose exposure to banks in Serbia (and vice versa) through cross-border borrowing and extension of credit lines is fairly insignificant relative to the total volume of operations of these banks.

Moreover, as extensive government aid in many EU-based Serbian subsidiaries' parent banks will soon expire, the question arises as to the certainty of the future inflow of funds from these primary sources of liquidity and the term structure of lending. A logical step forward would be to embark on consolidation of large international banking systems within groups and contraction in their activity in non-value adding markets on a consolidated basis.

Given Serbia's international position, the risk of the further spillover of adverse effects is highly unlikely for two main reasons: 1) the consolidated exposure of European banking groups to Serbia is not substantively significant (by contrast to the majority of SEE countries, such as Romania and Ukraine), and 2) European banks operating in Serbia record profit even in times of crisis.

A bank's withdrawal from the market practically means that its owners are making preparations to sell the bank when the time is right and have its operation continued by a new owner – bank clients are not to be affected in any way, i.e. depositors will continue to dispose of their funds under the previously agreed terms and debtors will remain liable for their debts. The new owner, before completing the transaction, will need to obtain prior consent of the NBS that will assess in particular the prospective buyer's business reputation.

Let us not forget, however, that banks in Serbia operate as individual legal entities whose capital cannot be withdrawn as long as they are operational, but may only be sold to another owner who thereby assumes all the existing liabilities.

In October 2009, after more than a year, the receivership in Metals banka a.d. Novi Sad was terminated. Following the bank's stabilisation and resumption of regular operations, the recapitalisation bidder was found – the autonomous province of Vojvodina, whereby its Executive Council became the majority owner with 61.87% of equity stake. After recapitalisation and election of a new executive board, Metals banka qualified to continue to operate under the new name of Razvojna banka Vojvodine (Development bank of Vojvodina) a.d. Novi Sad.

Profitability

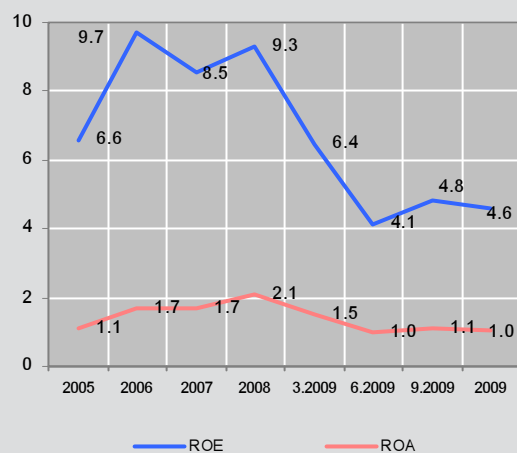
In 2009, the Serbian banking sector operated with considerable profit. Its nominal pre-tax profit came at RSD 20 bln. Of total 34 banks, 13 operated at a loss.

It was the core banking activities that gave the strongest boost to banking sector profitability in 2009. Despite sluggish lending during this period, sizable margins and a phased slowdown helped banks post profit from lending-deposit activities. Total interest receipts (RSD 169 bln) were up by 70% on just two years before. By contrast, earnings from fees and commissions rose at a much slower pace (RSD 42 bln), up by mere RSD 2 bln from 2008.

Profitability swelled also on account of interest receipts from investment in NBS- and T-bills, whilst a strong contraction in the repo stock in Q4 2008 exerted a negative impact as banks redirected a part of interest-bearing assets to enhance their FX liquidity. In early Q2 2009, the portfolio of central bank and RS securities increased, and banks sought to earn from these investments what they had lost due to a slowdown in lending. However, in the course of 2009, the NBS lowered its key policy rate from 17.75% to 9.5%, which substantially diminished profitability of investment in NBS and T-bills.

Dinar's depreciation did not bear down on banking sector's financial result. Though net expenditure from exchange rate differentials was recorded in 2009 (RSD 40 bln), assets and liabilities were revalued upwards by RSD 55.5 bln. The total effect of dinar's volatility was positive – RSD 15.5 bln at the year-end. The effects of deteriorated portfolio quality on banks' income

Graph 3.16. **Banking sector ROA and ROE***
(in %)



* ROE (Return on equity)
ROA (Return on assets)

Source: National Bank of Serbia.

statements were visible already by mid-2009 as the indirect write-off of loans and provisioning rose by RSD

37 bln from the year earlier. In net terms, expenses arising from value adjustments on receivables minus the abolishment of adjustments from the previous period produces the effect by RSD 10 bln higher than in the year earlier. Though such effects could not jeopardise to any major extent the overall banking sector financial result, we can expect that any further worsening of the portfolio, along with sluggish lending in the coming period, would weigh down heavily on the profitability of Serbian banks.

Return on equity (ROE) worsened from 9.28% at end-2008 to 4.6% in December 2009. Despite a high share of equity in balance sheet total, return on assets (ROA) dwindled as well to 1.0% y-o-y in December. A comparative analysis shows that local banks still report the highest efficiency ratio in managing their assets compared to countries in the region and that they rank exceptionally high in terms of ROE. This is highly important given the build-up of risks of consolidation of large international banking groups operating in the region of Southeastern Europe.

Banking sector operational efficiency remains satisfactory as net earnings from interest (starting from March 2008) are sufficient to fully cover operational expenses – in Q4 2009, the efficiency ratio stood at 1.1x.

Table 3.4. **Banking sector profitability indicators**
(in %)

	2006	2007	2008	2009
Gross income/Total assets	39.5	42.3	60.2	36.8
Net interest income/Total assets	4.1	4.0	5.4	4.7
Operating expenses/Total assets	5.2	4.5	4.9	4.3
Operating expenses/Net income from interest, fees and commissions	86.3	79.1	69.5	71.1
Financial result (RSD bln)	16.5	23.3	34.7	20.0

Source: National Bank of Serbia.

2. Non-banking financial sector

Insurance market

A marked slowdown in insurance premium growth in 2009 was expected against the crisis backdrop both in terms of corporate and household sectors. However, a simultaneous increase in life insurance premium is a positive signal of the insurance industry development in Serbia.

Reduced insurance premium is one of the primary reactions of insurance beneficiaries in crisis times – particularly in the non-life insurance segment.

Growth in the insurance market slowed down both in response to the lower number of newly concluded agreements and difficulties in collecting premiums under the existing agreements that relate mainly to assets and vehicles – full-coverage insurance (additional negative impact on full-coverage insurance came from the switchover of the leasing market from the financial to the operational leasing framework that is not subject to supervision and equally strict contractual obligations).

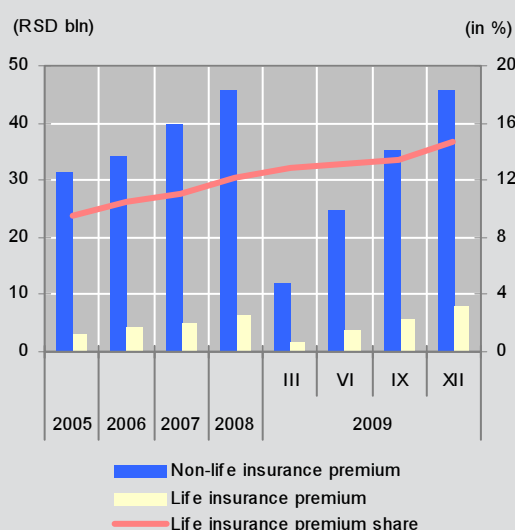
As Serbian insurance companies did not invest a lot in securities in the pre-crisis period, a decline in the

securities value – the most pronounced effect of the crisis, circumvented the sector. Such operations of insurance companies were due to the underdevelopment of the Serbian capital market, which helped the companies remain largely unscathed, apart from experiencing contracted operational volume and higher operational costs (raised for the purpose of maintaining the desired operational volume).

Measures that the NBS was implementing in the course of 2009 to preserve the country's financial stability pertained to the insurance sector, both directly and indirectly. The limits on investing technical reserves into bank deposits were raised (from 30% and 35% to 35% and 40% for life and non-life insurance respectively) and the criteria for equity investment eased (i.e. investment in shares not listed on the Belgrade Stock Exchange Prime Market). Furthermore, measures with respect to stabilisation of the economy and the Serbian banking sector also exerted a strong impact on the insurance sector being an intrinsic part of the whole system.

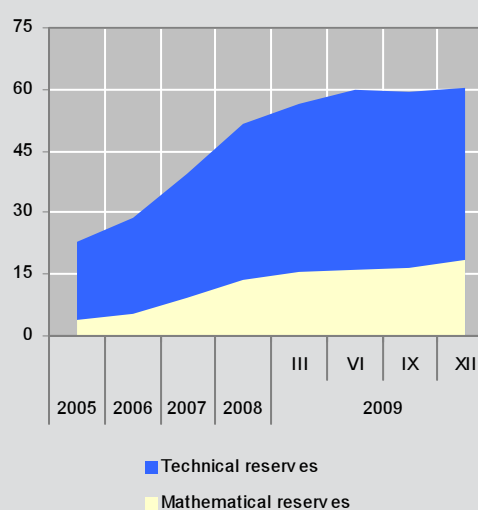
Although conditions in the insurance sector remain highly stable, the sector's underdevelopment continues to be the key risk not so much for the sector itself as for the entire financial system since traditionally, insurance should be one of the main sources of capital market financing (in terms of both equities and debt securities).

Graph 3.17. Life and non-life insurance premium



Source: National Bank of Serbia.

Graph 3.18. Technical reserves (RSD bln)



Source: National Bank of Serbia.

Table 3.5. Insurance sector performance indicators

	2007	2008	III 09	VI 09	IX 09	XII 09
Total insurance premium	44,780	51,187	13,739	28,508	40,910	53,535
Life insurance premium	4,940	6,347	1,764	3,732	5,513	7,881
Share in total premium	11.0%	12.4%	12.8%	13.1%	13.5%	14.7%
Non-life insurance premium	39,841	45,840	11,975	24,776	35,397	45,653
Share in total premium	89.0%	89.6%	87.2%	86.9%	86.5%	85.3%
Insurance density (RSD)*	6,066	6,964	7,507	7,788	7,451	7,313
Life insurance density* (RSD)	669	864	964	1,020	1,004	1,077
Insurance penetration*	1.95%	1.88%	1.99%	2.05%	1.93%	1.88%
Technical reserves	39,529	51,494	56,403	59,659	59,453	60,544
Mathematical reserves	9,172	13,711	15,401	16,093	16,801	18,670
Insurance companies' capital	24,671	25,324	25,074	26,232	27,862	29,163
Total assets of insurance companies	70,624	84,807	91,268	96,678	98,620	99,227

* Annualized data.

Source: National Bank of Serbia.

The two main steps made towards the market upgrade centred on the development of the debt securities market (mainly government securities) and initiation of talks relating to the introduction of natural disaster insurance.

A World Bank project envisages establishment of a public-private regional resource that would, through reinsurance services, enable the development of natural disaster insurance among insurers in Southeastern Europe. If the project is carried out, Serbian corporate and household sectors will be able to buy domestically favourable insurance policies against the widespread risk of natural disasters. This would be highly important for some social segments (mainly those engaged in agriculture) that have been suffering increasingly severe consequences of droughts and floods. In addition, the development of this type of service would significantly reduce the government's budget costs of addressing the consequences of natural disasters.

Establishment of the secondary market has provided a venue for trading in RS T-bills. In addition to banks that are dominant buyers of the primary issue of these securities, insurance companies are expected to play an important role as well.

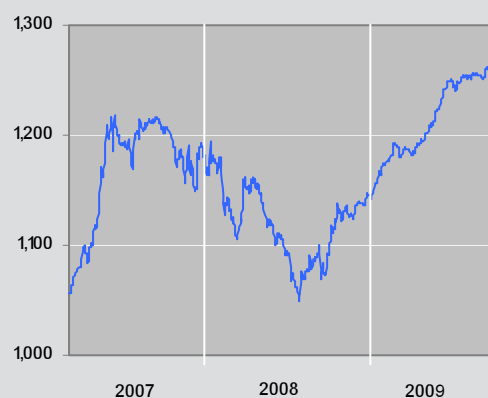
Voluntary pension funds market

(VPF) assets in Belgrade Stock Exchange (BSE) shares first recorded in H2 2008, continued into 2009 and was accompanied with traditionally less risky investment, leading to a mild recovery of FONDEX – a VPF market index. Starting from Q3, FONDEX was back at its pre-

crisis level (note that this market entered the crisis already in Q3 2007, i.e. at the time when BSE shares went into a deep plunge), and since August was on a relatively constant rise and going above its historical record levels.

Along with a gradual decline in funds held in custody accounts and withdrawal of assets from the capital market, i.e. sale of shares, VPFs opted to invest in government securities that are the least risky form of investment and traditionally the preferred long-term

Graph 3.19. FONDEX movements, 2007 - 2009



Source: National Bank of Serbia.

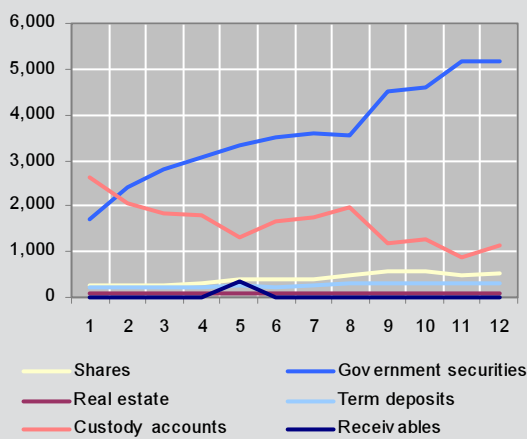
choice of VPFs and life insurance companies. The expected shift was accomplished by the establishment and development of the capital market. Further, the dinar portion in total net assets of VPFs increased from 63.7% to 69.7% in 2009, meaning that 80% of the increase related to dinar-denominated investments.

No major changes were observed in terms of the contribution payment structure and the average payment

per beneficiary. Such movements in VPFs (and in insurance business as well) were expected in the crisis and post-crisis period as the average contribution of RSD 3,276 (in 2009) remains subject to tax exemption.

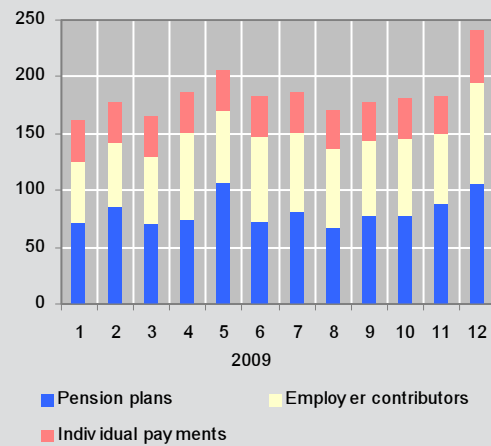
Stagnation in the VPF market development under current market circumstances (in terms of its operational volume) could impose the need for consolidation, i.e. merging of VPF management companies in the period ahead.

Graph 3.20. Structure of VPF net assets in 2009 (RSD mln)



Source: National Bank of Serbia

Graph 3.21. Structure of contribution payments (RSD mln)



Source: National Bank of Serbia.

Financial leasing market

In 2009, the financial leasing market experienced real and from Q2 even nominal contraction in activity. At the same time, external indebtedness of financial leasing providers is on a steady decline (external borrowing being the dominant source of sector's financing).

As highlighted in previous issues of this Report, the sharpest contraction is observed in the household sector whose total borrowing under financial leasing dwindled by 24.7% p.a. The trend commenced after the establishment of the rental

companies sector, i.e. companies providing operational leasing services – in the period of restrictive monetary policy pursued by the NBS, these companies offered their beneficiaries the exemption from the credit bureau records, i.e. from calculation of total indebtedness. Despite much more unfavourable circumstances compared to financial leasing, operational leasing allows for lower amounts of monthly indebtedness.

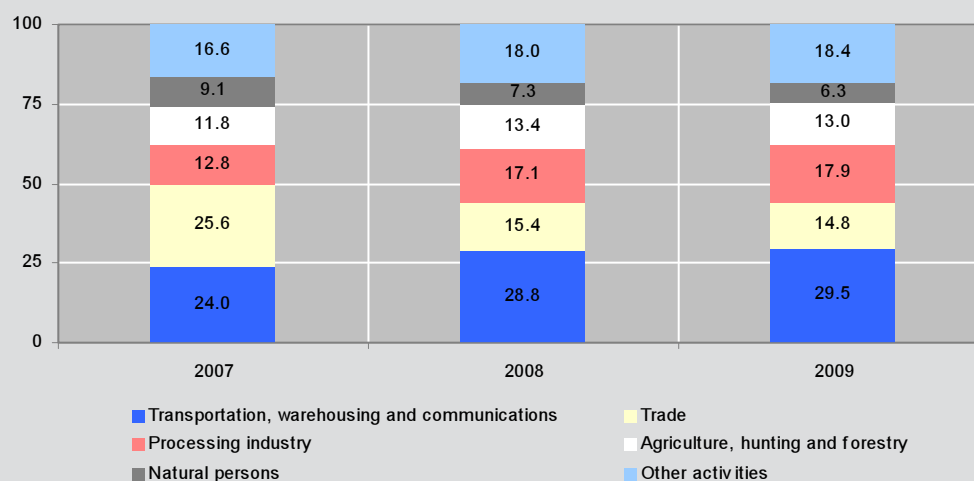
All economic sectors suffered the annual downturn that was particularly pronounced in transport, trade and agricultural sectors that lent the key boost to growth in the prior period.

Table 3.6. Performance indicators for financial leasing sector (RSD thousand)

	2007	2008	III 09	VI 09	IX 09	XII 09
Total assets	95,265	122,551	126,138	120,271	116,382	111,314
Receivables under financial leasing	66,861	95,688	96,875	90,311	85,400	83,549
Loan obligations	74,211	100,317	114,544	111,598	109,751	107,102
Cross-border loans	69,287	94,231	107,572	105,199	103,679	101,202
Domestic bank loans	4,923	6,086	6,972	6,399	6,072	5,900
Return on assets (ROA)	1.8%	0.4%	3.0%	1.9%	1.5%	1.8%
Return on equity (ROE)	30.6%	7.9%	51.8%	31.3%	23.9%	27.1%
Net interest margin (NIM)	4.3%	3.1%	4.8%	5.4%	4.9%	5.8%
Number of contracts	64,887	65,100	63,549	62,587	60,352	58,479

Source: National Bank of Serbia.

Graph 3.22. Financial leasing structure by lessee (in %)



Source: National Bank of Serbia

IV. Financial stability

In 2009, the NBS implemented a range of measures to preserve financial stability. In terms of the system's prudential supervision, these measures were both reactive and proactive in character. The effects were measurable and visible in the major part of the system already in the course of the year.

The crisis that erupted in developed markets spilled over to Serbia in Q4 2008 and prompted exacerbation in almost all macroeconomic indicators in the country.

Still, measures adopted by the NBS, together with the government's subsidies programme, helped prevent a

Table 4.1. Key macroeconomic indicators

	2006	2007	2008	2009
GDP	5.2	6.9	5.5	-3
Current account deficit	-13.4	-15.6	-18.1	-5.7
Depreciation	-7.6	0.3	11.8	8.2
Unemployment rate	21.6	18.8	14.4	16.9

* As % of GDP.

Source: National Bank of Serbia.

breakdown in lending and even brought about a real increase in lending in 2009.

Serbian banks are highly capitalised and liquid, boast adequate provisioning ratios, and are therefore highly resilient to adverse impacts that may arise under pessimistic macroeconomic scenarios. Not even a rapid rise in NPLs could lead to banks' undercapitalisation and pre-emptive interventions. This assessment has been confirmed by stress tests – FSSP, FSAP and IMF's regional stress tests.

1. Financial Sector Support Program (FSSP) – Vienna Initiative

On 27 March 2009 in Vienna, under the IMF's auspices, a coordination meeting was held with banking groups whose subsidiaries operate in Serbia (making up around 60% of the domestic banking sector's balance sheet total). At this meeting, banking groups committed to maintaining their exposure to legal entities in Serbia over the next two years at least at their December 2008 levels. They also undertook to maintain the solvency and liquidity of their subsidiaries above the prescribed minimum and to consider pre-emptive recapitalisation should the results of stress tests implemented by the NBS so require.

In this regard, the NBS developed the Financial Stability Support Programme by providing banks with continuous access to dinar and foreign exchange sources of liquidity and by acting pre-emptively (so as to preserve the quality of bank assets) through establishing a framework for encouraging lending activity, i.e. by modifying the conditions of loan repayment for bank clients, and by relaxing the criteria for the classification of restructured and refinanced loans. These measures had a positive impact on the real sector and helped reduce the outflow of foreign exchange thus aiding stabilisation of the foreign exchange market.

The Programme was open to all banks in Serbia. It implied voluntary undertaking (and fulfilment) of the above commitments by banks and their owners, as well as access to NBS's support measures, such as: dinar loans with the maturity of up to one year, FX swap transactions, facilities relating to the currency composition of FX required reserves allocation and eased conditions for classification of bank lending. Of 34 banks active in Serbia, 27 took part in the Programme (making up 90% of the banking sector).

Financial stability in Serbia has been maintained through the support provided to banks in overcoming the consequences of the crisis, in establishing a solid liquidity position and managing heightened credit and FX risk. Stress tests implemented for 31 banks indicate that the Serbian banking sector is resilient to both (highly unlikely) external and internal shocks and that there is no need for extraordinary, pre-emptive recapitalisations. A high degree of sector's stability and resilience has also been confirmed by the joint IMF and World Bank FSAP mission, implemented in October 2009 (the mission's report was published on the IMF's website).

In the course of 2009, the Programme proved exceptionally successful – by the year-end, the exposure of banks signatories to the Vienna agreement even rose somewhat. From the agreed level – EUR 8.72 bln on 31 December 2008, total exposure came at EUR 8.76 bln at end-2009. Furthermore, it stood above EUR 9 bln for a considerable period during the year.

Hence, in the absence of pressures on the domestic banking sector that could bring down the level of exposure, i.e. induce the outflow of capital of foreign-owned Serbian subsidiaries, ratification of the agreement in early 2010 envisaged lowering of the

agreed level of exposure by 20% in the course of 2010, which in Q1 did not result in a decline.

2. Stress tests

The stress-testing methodology was developed in cooperation with the IMF within the Vienna Initiative. Its aim was to identify weaknesses under highly adverse macroeconomic scenarios and indicate the need for pre-emptive recapitalisation. These tests were developed in 2009 in three main phases: 1) designing and development of the model in cooperation with the IMF and representatives of the Serbian banking sector; 2) diagnostic examination of all banks – extensive analysis of bank operations; 3) defining macroeconomic assumptions of a pessimistic scenario, in cooperation with the IMF. Repeated stress tests (31 March 2009, 30 September 2009 and 31 March 2010) have shown that the domestic banking sector is highly resilient to external shocks given its high degree of pre-emptive capitalisation, i.e. owing to prudential, restrictive measures that the NBS pursued in the period of credit expansion (2004–2008).

Though subsequent testing produced less optimistic results, the domestic banking sector has shown strong

Table 4.2. Stress-test results in 2009 and 2010

Data for period ending on 31 March 2009 (31 banks, 98% of the banking sector)			
	Initial	2009	2010
Consolidated banking sector Capital Adequacy Ratio	20.79%	19.94%	18.19%
Share of NPL's in total loans (gross)		+8.2 pp	+5.7 pp
Data for period ending on 30 September (complete banking sector)			
	Initial	2010	2011
Consolidated banking sector Capital Adequacy Ratio	21.31%	16.87%	16.25%
Share of NPL's in total loans (gross)		+15.4 pp	+5.7 pp
Data for period ending on 31 March 2010 (complete banking sector)			
	Initial	2010	2011
Consolidated banking sector Capital Adequacy Ratio	21.53%	18.60%	16.83%
Share of NPLs in total loans (gross)		+11.2 pp	+7.2 pp

Source: National Bank of Serbia

resilience as a number of potentially problematic banks is very small, i.e. their market share is not of systemic importance. It should also be underlined that the realisation of a pessimistic scenario is almost impossible – current macroeconomic developments could not expose the banking sector to as nearly strong disruptions as those underlying stress tests.

Starting from September 2009, the NBS adopted stress testing as a regular supervision instrument to be regularly conducted and made public. By establishing the methodology of macroeconomic projections the whole testing concept has now been fully rounded up by the NBS.

3. Temporary measures for preserving the country's financial stability

The NBS adopted temporary measures aimed at preserving the country's financial stability to account for negative effects of a potential systemic risk. These measures were geared at granting relief to banks for breach of regulations made under the impact of those negative effects (e.g. depreciation of the dinar given a high FX-clause indexation rate of the domestic banking portfolio). In addition, the main amendments relate to raising of total net open FX position from 10% to 20% and the inclusion of subordinated liabilities exceeding 75% of bank's capital into deductions from bank's Tier II capital, with the aim of stimulating borrowing with parent banks. This was expected to contribute to strengthening of banks' financial position and improvement of Serbia's balance of payments (including strengthening, i.e. stabilisation of the dinar exchange rate).

At the same time, financial leasing providers were exempted from the provisioning requirement on external borrowing above the level as at 30 September 2008, whereas insurance companies were permitted to invest their technical reserves into shares not listed on the Belgrade Stock Exchange Prime Market.

In essence, these temporary measures practically abolished the majority of restrictions from the prior period aimed at limiting credit growth in Serbia in an environment of strong credit expansion.

4. Special facilities to support the country's financial stability

Special facilities to support the country's financial stability, adopted by the NBS, rely directly on the Vienna Initiative and encompass 1) establishing an additional NBS liquidity channel to provide banks with dinar loans with the maturity of up to one year; 2) enabling dinar-FX swap transactions with the NBS; 3) allocation of FX required reserves with the NBS in dinars. It should be noted that these measures were primarily preventive in nature. These additional liquidity channels were not used during 2009 as the rate of banks' liquid assets was exceptionally high – over 30% of total assets, which is why the crisis that spilled over to Serbia did not imperil the banking sector's liquidity. In early 2010, swap transactions with the NBS were used for the first time, but their volume remained insignificant relative to the overall activity of the banking sector.

5. Monetary easing measures

Not only did the NBS amend regulations, but it also used its main policy instrument to ease the monetary policy stance. Namely, it lowered the key policy rate from 17.75% in early 2009 to 9.5% at the year-end. The trend continued into Q1 2010 and is likely to persist with a view to buttressing economic growth, provided the achievement of its primary objective is not jeopardised by major inflationary pressures.

6. Regulatory relaxation

As already mentioned, the NBS adopted a series of measures in the course of the year to relax regulatory criteria bearing in mind the overall economic situation in the Serbian market. In fact, a number of its measures at the onset of the crisis aimed to restrict expansionary activity of local banks in view of the worrying level of growth of lending activity and balance sheet assets in the prior period. Since such "conservative" policy of the NBS resulted in the creation of strong capital buffers, there was room for easing monetary policy and relaxing regulations.

In addition to large cuts in the key policy rate, another key measure related to the relaxation of bank asset classification criteria, enabling debt settlement facilities to household and corporate sectors during the crisis period, with no major consequences on the quality of banking sector assets.

7. IMF and World Bank FSAP Mission

Starting from September 2008, the Government of the Republic of Serbia, NBS and other government institutions provided support to the IMF and World Bank to conduct an in-depth analysis of Serbia's financial sector through the *Financial Sector Assessment Program*. The *Program* represented an independent expert assessment of the financial sector and contained recommendations for the sector's upgrade. What was of paramount importance, however, was a positive assessment made by the above institutions at the moment when the Southeast European region was marked as one of the riskiest. Since the last assessment carried out in 2005, significant progress has been noted in the majority of FSAP-covered fields. Moreover, comparative analyses conducted under internationally accepted standards have confirmed once again extremely strong resilience of the Serbian financial sector to external impacts.

8. Approximation to full Basel II compliance

Serbia and in its banking sector in particular will continue in early 2011 when the majority of measures adopted as a prompt reaction to the spillover of the crisis will expire. These steps mainly relate to amendments to bank regulations aimed at full implementation of Basel II standards. A conservative approach to the application of these standards will be continued with full consideration of specific features of the Serbian market. Our continued conservative stance in pursuance of prudential policy, which resulted in the creation of substantial loan loss provisioning and ample high quality capital during the period of expansion, will facilitate banks' shift to the new, internationally supervised regulatory framework. Though regulatory changes in Serbia still do not coincide with

those implemented at the international level, modifications of the regulatory framework and regulations pertaining to financial operations announced by competent institutions will very quickly yield tangible results in the Serbian banking sector as well.

The new EU regulatory framework, based on recommendations from the de Larosière report, will relate primarily to banking groups originating from EU member states and will be applied in due course to their subsidiaries in Serbia as well. Preparation of draft amendments to regulations on Basel standards (Basel II+ and Basel III) is currently underway and relates to strengthening of core capital, boosting liquidity and introducing of the leverage ratio. Prudential regulatory activities of the NBS (often qualified as overly conservative) have once again showed their outright advantages. Namely, amendments to Basel regulations should impact on raising both the amount and quality of capital which in Serbian banks is already exceptionally high.

As much as 82% of total prescribed capital (before deductions) relates to banks' core capital. At the same time, 83% of core capital consists of share capital, with the rest referring to reserves from profit and earnings retained from earlier years. Thanks to such capital structure, the leverage ratio for the Serbian banking sector would equal around 8% under the most conservative approach by contrast to a much lower minimum discussed within the Basel committee. In addition, strong liquidity buffers have been created – the ratio of liquid assets to liabilities is around 200% and the ratio of liquid to total assets is as much as 32%. Foreign-owned banks account for 74% of the banking sector, of which 72% of banks are from the EMU.

Deviations from full compliance with Basel regulations will enable banks to shift more easily to future frameworks by avoiding drastic oscillations in capital.

Current talks at the level of G20 and EU member states, relying on IMF's proposal regarding the introduction of an additional tax on banks, could represent the key regulatory challenge in the coming period. The proposal is justified by extremely high costs of some countries relating to banking sector stabilisation (government recapitalisations and extraordinary aid packages), while funds collected would be used for creation of a resolution fund to help the financial sector bear the brunt of its own stabilisation in future.

Index of charts and tables

Charts

1.1. Real GDP growth and world trade volume	9
1.2. Global financial stability overview	10
1.3. GDP and price movements	10
1.4. Stock of government T-bills	11
1.5. Foreign debt movements	11
1.6. Fiscal movements	12
2.1. Coverage of consumer basket by income in 2009	13
2.2. Household lending in 2009	13
2.3. Usage of overdraft facilities in 2009	14
2.4. Usage of credit cards in 2009	14
2.5. Indexation of household loans in 2009	14
2.6. Net household position towards the financial sector in 2009	14
2.7. Industrial production in 2009	15
2.8. Sources of funding of the Serbian corporate sector	15
2.9. Exports and imports in 2009	16
2.10. BELEX15 and BSE trade volume	17
2.11. Index movements on regional exchange markets in 2009	17
3.1. Stock of NBS repo and government T-bills in 2009	20
3.2. Banking sector asset-liability maturity matching in 2009	21
3.3. Overview of the dominant banking sector sources of funding	21
3.4. Sectoral structure of deposits on 31 December 2009	21
3.5. Household foreign currency savings	22
3.6. Banking sector funding and lending	23
3.7. Sectoral distribution of lending activity	24
3.8. Share of private sector loans in GDP	24
3.9. Lending activity slowdown effect on NPL share	25
3.10. Share of NPLs in total loans	25
3.11. Sectoral distribution of net corporate NPLs	26
3.12. Net household NPLs - breakdown by type of loans	26
3.13. Capital adequacy ratios	27
3.14. Capital adequacy - sectoral distribution	27
3.15. Net FX exposure of the banking sector	29
3.16. Banking sector ROA and ROE	31
3.17. Life and non-life insurance premium	32
3.18. Technical reserves	32
3.19. FONDEX movements, 2007 - 2009	33
3.20. Structure of VPF net assets in 2009	34
3.21. Structure of contribution payments	34
3.22. Financial leasing structure by lessee	35

Tables

2.1. Enforced collection in 2009	16
3.1. Liquidity indicators	20
3.2. Loan to deposit ratios	22
3.3. Serbian subsidiaries of Greek parent groups, 31 December 2009	29
3.4. Banking sector profitability indicators	31
3.5. Insurance sector performance indicators	33
3.6. Performance indicators for financial leasing sector	35
4.1. Key macroeconomic indicators	37
4.2. Stress-test results in 2009 and 2010	38

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

336

FINANCIAL Stability Report / National bank
of Serbia. - 2005- . - Belgrade (Kralja Petra
12) : National bank of Serbia, 2005-

29 cm

ISSN 1820-9106 = Financial Stability Report
COBISS.SR-ID 177933068