Annual Financial Stability Report

June 2012

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Foreword 1/3

- Complex situation in the euro area weakens the economic recovery.
- The consequences of a resurgence of the sovereign debt crisis in the euro area could manifest through the foreign trade and financial channels.
- Macroeconomic imbalances remain large; there are no signs of a faster economic recovery, and the crisis could even lead to a decrease in potential GDP growth.
- The level and currency structure of public debt sound a warning. Sustainable public (and external) debt requires strong fiscal adjustment and maintaining average level of external capital inflows.
- FX reserves provide an adequate protection from shocks.
- Monetary policy easing was halted in 2012.
- The corporate sector operated with profit in 2011, relying increasingly on the domestic sources of financing and reducing its debt. The terms of financing for the corporate sector remain unfavourable.

Foreword 2/3

- Real wages are stagnant, while unemployment is rising. Household savings and lending are growing in real terms, but at a slackening pace. The maturity structure of household savings is changing towards a greater share of long-term sources. The indebtedness of the household sector remains exceptionally low.
- The banking sector is well capitalised:
  - Reliance on external sources has diminished;
  - Local sources of funding need to be built up further;
  - Liquidity more than adequate;
  - A rise in dinar lending and a lack of long-term dinar sources of funding signal that currency and maturity matching is required;
  - Overall profitability is at a satisfactory level.
  - NPLs are increasing (19% in 2011), but fully (129%) covered by provisions.
- The insurance sector is well capitalised, but its profitability is low. Underdevelopment of natural hazard insurance poses a significant risk.

Foreword 3/3

- Underdeveloped domestic financial market cannot establish itself as as an alternative source of funding.
- The property market featured a drop in prices and volumes:
  - Decreasing demand (↓ household income, ↑ unemployment);
  - Decreasing supply due to unfavourable trends in construction;
  - Absence of comprehensive index for property valuation and market monitoring.
- Financial system is stable, though less so than in the pre-crisis period:
  - Financial soundness indicators;
  - Aggregate financial stability indicator;
  - ELECTRE method;
  - Stress tests.

Key risks and measures 1/4

- External risks:
  - protracted crisis in the euro area leads to bank deleveraging and consequently, a drop in lending activity;
  - crowding out of the real sector due to huge budget deficit, public debt, and enormous needs for new issues and refinancing;
  - crowding out of overindebted countries due to the risk of negative feedback loop between sovereign debt and bank balance sheets.
- Mitigating measures:
  - consolidation of public finance; may have a negative short-term impact on growth;
  - active role in international initiatives, especially in securing greater support from international financial institutions and parent banks.

Key risks and measures 2/4

- Internal risks:
  - nearing the debt threshold where crisis becomes possible;
  - large exposure to own government securities;
  - sluggish capital inflow into the country as a consequence of investor risk aversion triggered by the breach of fiscal rules;
  - sluggish capital inflow into the banking sector due to deleveraging and bad market conditions for sale of government shares in good banks;
  - increased pressure on the foreign exchange market;
  - further deterioration in asset quality: NPLs have a negative impact on equity and deter external funding;
  - weak economic growth and depreciation reduce the lending potential of banks;
  - poor corporate governance of banks in highly fragmented ownership.

Key risks and measures 3/4

- Mitigating measures:
  - strengthening macroprudential supervision by the NBS and the resolution framework as the first line of defence against systemic risk;
  - improvement of the regulatory and institutional framework for NPLs;
  - encouraging banks to rely more on profit as a source of capital;
  - encouraging banks to focus on the issue of long-term debt so as to diversify their sources of financing;
  - supporting the process of ownership consolidation of banks in highly fragmented ownership;
  - Arrangement with the IMF:
    - to insure against external shocks;
    - to anchor fiscal responsibility;
    - to mitigate financial risks;
    - to catalyse structural changes.

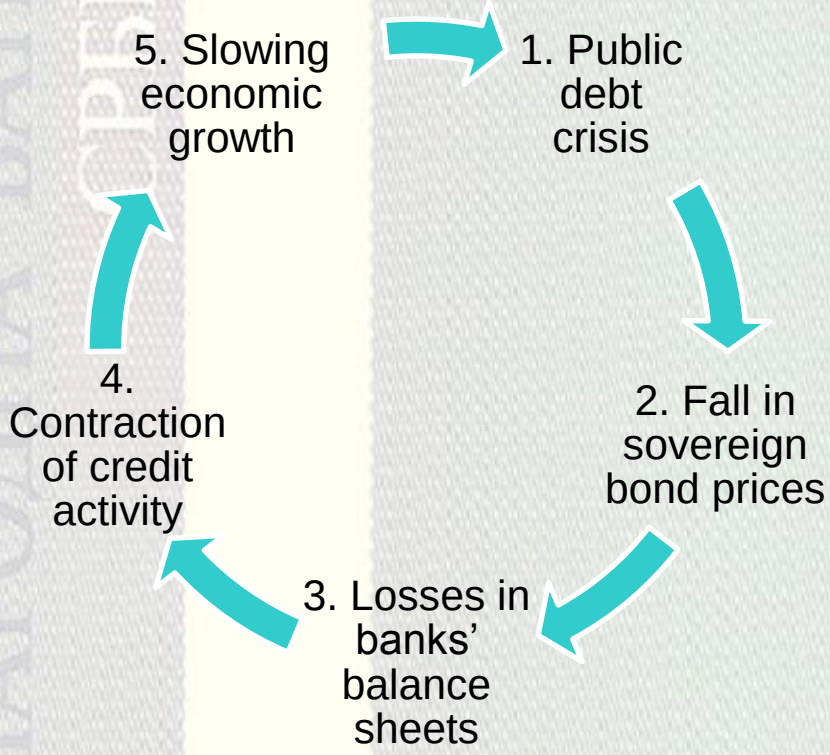
Key risks and measures 4/4

- Last, but by no means least:

- **Financial system exposure to the foreign exchange risk.**
- **Implementation of the dinarisation strategy: not possible other than through concerted effort of the NBS, the Government and banks.**

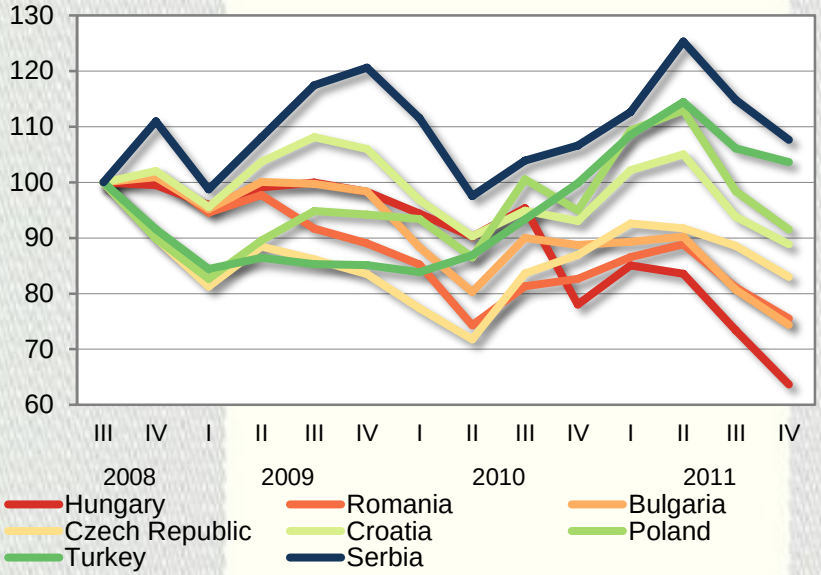
Prolonged eurozone crisis will cause a change in banks' business models 1/2

Adverse feedback loop between sovereign debt risk and banks' asset quality



Most exposed to the risk of deleveraging are emerging markets

Exposure of BIS member banks to emerging markets
(index, September 2008 = 100)



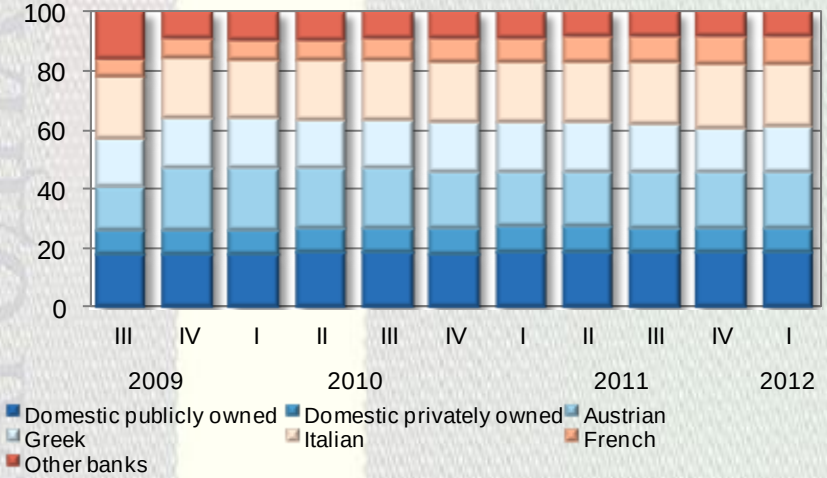
Source: Bank for International Settlements.

Prolonged eurozone crisis will cause a change in banks' business models 2/2

Two potential channels of deleveraging impact on Serbia:

1. foreign trade channel,
2. financial channel (high market share of foreign banks' supsidiaries).

Ownership structure of banks present in the Republic of Serbia, by major shareholder's country of origin
(share in total assets, %)



Source: National Bank of Serbia.

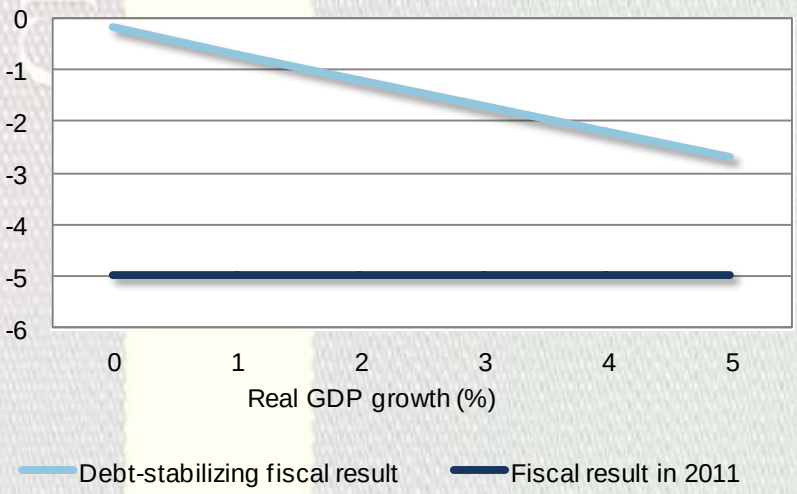
Serbian banks' funding structure has improved.

- As the maturity structure of credit lines from parent banks improved, the refinancing risk has been reduced.
  - Share of s/t credit lines was decreased (from 12% in 2009 to 2% in March 2012).
- Nontheless, funding from parent banks is still significant.
  - Consequently, changes in their business models might have negative impact on Serbian banks.
  - Recommendation: **strenghtening of domestic funding base is essential**.

Public (and external) debt stabilization at current levels would require a strong adjustment

Given growth projections (0.5%), fiscal deficit required to stabilize public debt is approximately 0.5% of GDP.

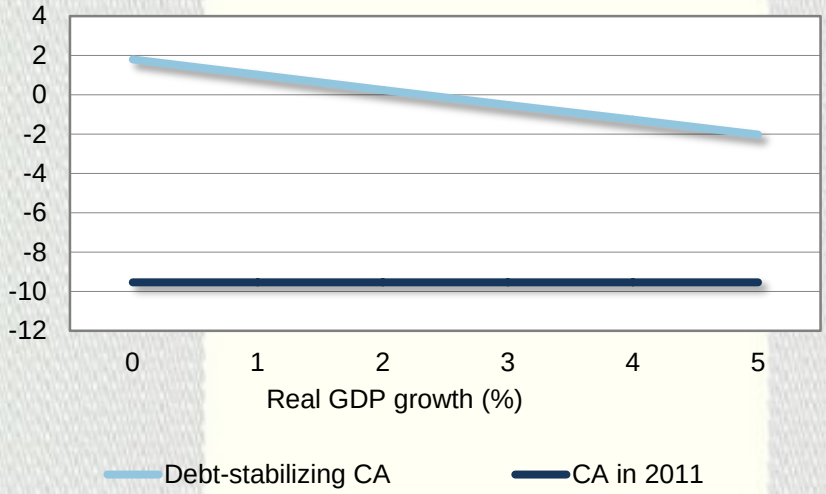
Public debt stabilization at 51% of GDP
(% of GDP)



Source: National Bank of Serbia.

Given 0.5% growth, external debt level is sustainable with CA surplus slightly below 1% of GDP.

External debt stabilization at 77.5% of GDP
(% GDP)



Source: National Bank of Serbia.

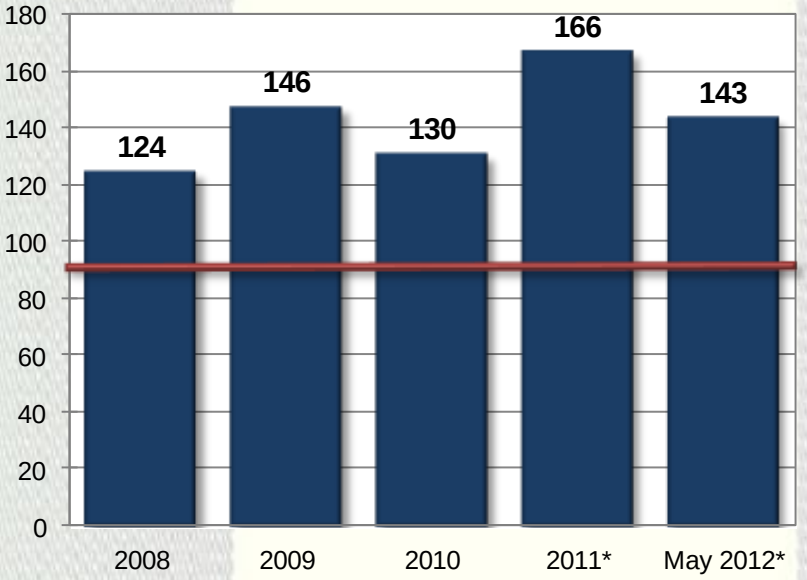
FX reserves are sufficient to ease the adjustment process, but are by no means its supstitute

Foreign exchange reserves adequacy indicators

- Traditional indicators
  - They indicate FX reserves adequacy from the perspective of defence from an individual risk.
- Composite indicators
  - They include combination of multiple risks.
- Right “measure for Serbia”
  - A composite indicator created as a modification of the Greenspan-Guidotti indicator.
  - Measures FX reserves coverage of:
    1. s/t residual debt,
    2. CA deficit,
    3. 15% of FX deposits,
    4. 5% of RSD deposits.

Indicator Right “measure for Serbia”

Right "measure for Serbia" for gross FX reserves (%)



* Short-term external debt (residual maturity), CA deficit and FDI are NBS projections.
Source: National Bank of Serbia.

Model for the optimal level of FX reserves

Jeanne-Ranciere model modified to better fit domestic conditions

- Original model:
  - small open economy, hit by a shock (sudden stop);
  - FX reserves are used to smooth the consumption;
  - optimal reserves level for smoothening the consumption:

$$\rho = \frac{\lambda + \gamma - (1 - \frac{r-g}{1+g}\lambda)(1 - p^{1/\sigma})}{1 - \frac{\pi}{\pi + p(1-\pi)}(1 - p^{1/\sigma})}$$

- Modification:
  - small, open, **euroized** economy, hit by **multiple shocks**.

$$\rho = \frac{\sum_{i=1}^{n}\lambda_i + \gamma - (1 - \frac{r-g}{1+g}\lambda)(1 - p^{1/\sigma}) + \frac{1+r}{1+g}\lambda\Delta Q}{1 - \frac{\pi}{\pi + p(1-\pi)}(1 - p^{1/\sigma}) + (1 - \pi + \delta)\Delta Q}$$

Optimal foreign reserves level according to four possibile stress--scenarios

Stress-scenarios

Symbol	Parameter	Scenario			
		1	2	3	4
γ	Damage caused by sudden stop (% of GDP)	7%	7%	7%	7%
r	FX reserves return	2%	2%	2%	2%
g	Average GDP growth	4%	4%	4%	4%
σ	Risk-aversion	3	3	3	3
δ	EMBI	6%	6%	6%	6%
π	Probability of sudden stop	10%	10%	10%	10%
λ	Size of a shock (% of GDP)	30%	30%	35%	35%
ΔQ	Real depreciation	0%	10%	0%	10%
ρ	Optimal level of FX reserves (EUR mln)	6,536	7,647	8,129	9,252
NBS gross FX reserves (EUR mln)		10,172			

Source: National Bank of Serbia.

Serbian banking system is stable

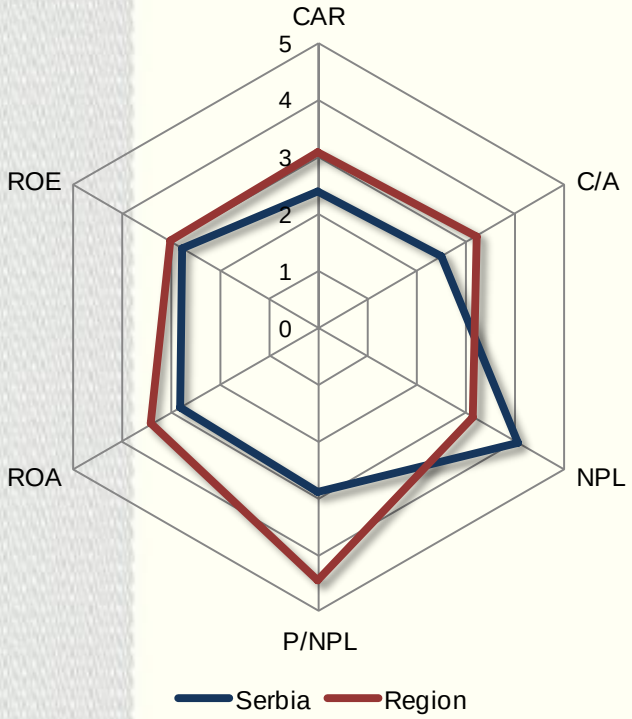
- In order to cross-check the obtained results, we relied on a combination of different approaches to assessing financial stability:
  1. comparison of selected Financial Soundness Indicators;
  2. construction of the Aggregate Financial Soundness Indicator (AFSI);
  3. using the ELECTRE method;
  4. exposure of financial system to intense shocks in stress-tests.
- Results have shown that **Serbian banking system is stable**.
- However, its stability was reduced relatively to the pre-crisis period.

Comparison of selected Financial Soundness Indicators

Financial soundness "networks" for Serbia and CEE region

- Networks display six standardized Financial Soundness Indicators at end-2011:
  1. Capital adequacy ratio,
  2. Capital to assets,
  3. NPL ratio,
  4. Provisions to NPL,
  5. Return on assets,
  6. Return on equity.

Greater distance from the network center suggests greater risk



Source: National bank of Serbia and GFSR.

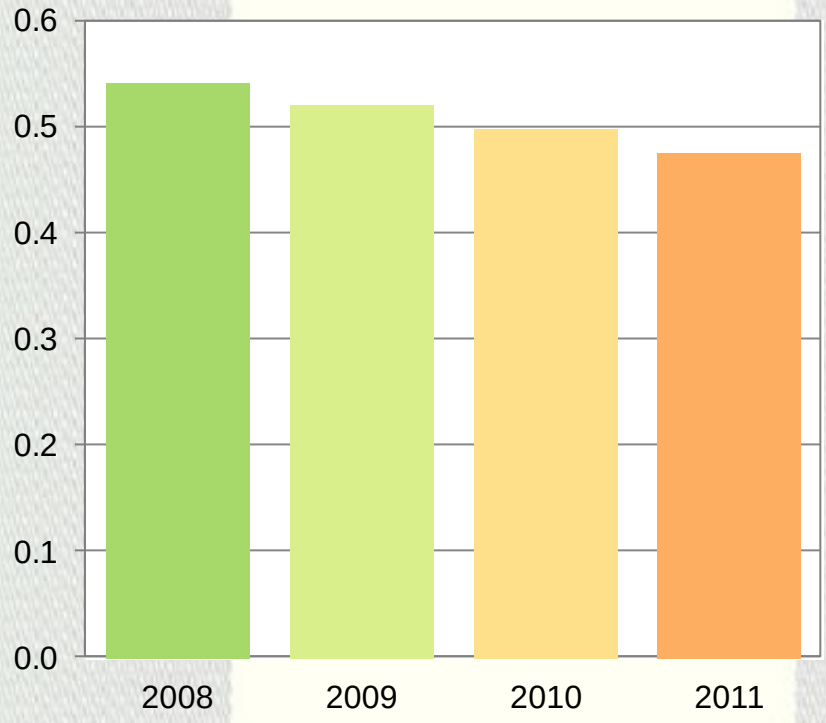
Aggregate Financial Soundness Indicator (AFSI)

Construction of the AFSI

- Building blocks of AFSI: basic indicators of capital adequacy, asset quality, profitability, liquidity and sensitivity to market risks.
- AFSI is endogenous, its value depends on the values of basic indicators in 27 countries of the EU and the region.
- Aggregate FSI is obtained as a weighted average of basic indicators standardized using formulas:

$$N_{kj} = \frac{I_{kj} - \min\limits_{1 \le i \le n} I_{ki}}{\max\limits_{1 \le i \le n} I_{ki} - \min\limits_{1 \le i \le n} I_{ki}} \qquad N_{kj} = \frac{\max\limits_{1 \le i \le n} I_{ki} - I_{kj}}{\max\limits_{1 \le i \le n} I_{ki} - \min\limits_{1 \le i \le n} I_{ki}}$$

AFSI dynamics from the pre-crisis period

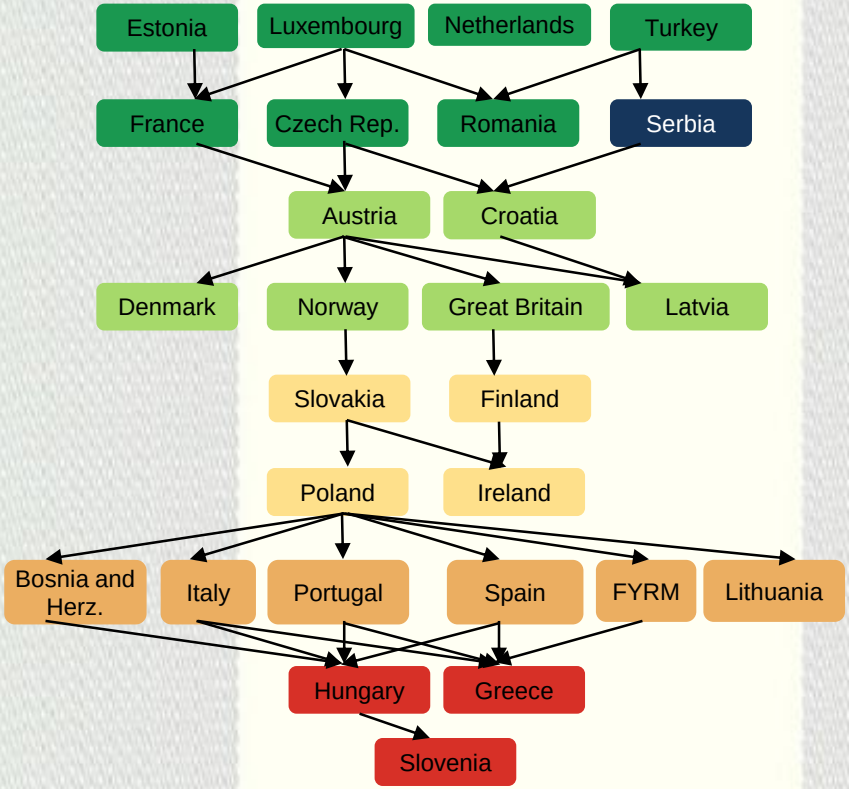


Comparative analysis of financial stability applying the ELECTRE method

ELECTRE *(ELimination Et Choix Traduisant la REalité)*

- Qualitative method for ranking alternatives based on given criteria
  - We ranked banking sectors of 27 countries based on selected indicators of financial stability.
- Goal: to assess financial stability of Serbian banks relative to other countries.
- When considering hypothesis that alternative A is better than alternative B, the method consideres separately pros and cons:
  - **concordance index** measures the percent of criteria w/ respect to which alternative A is preferred to alternative B;
  - **discordance index** observes the criterion based on which A is most inferior to B, and shows by how much percentually is A worse than B.

Hierarchical levels w/ respect to financial stability



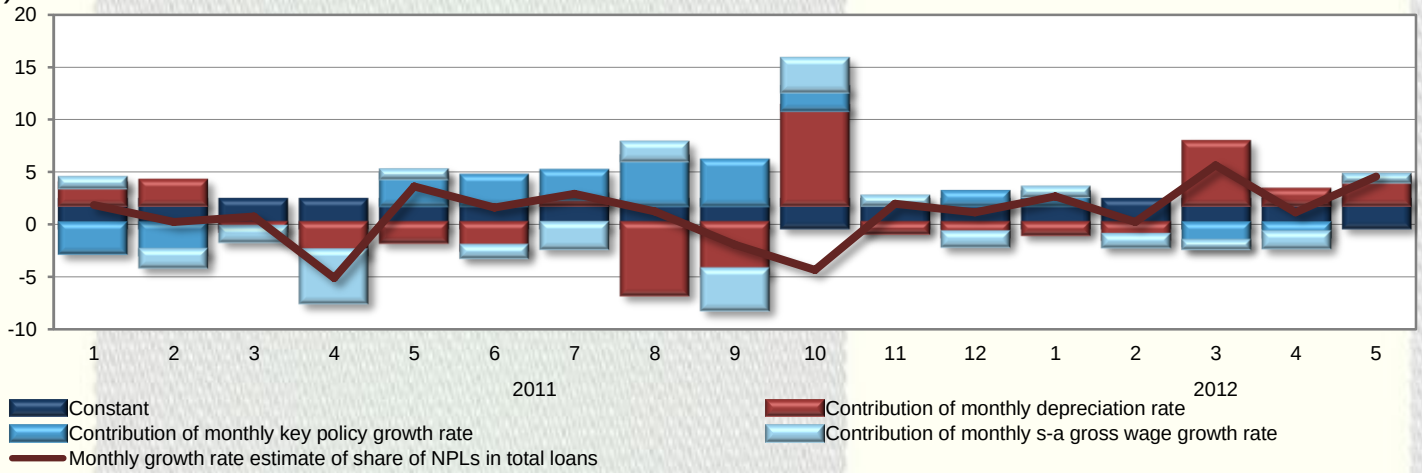
Credit risk analysis

- Credit risk is the most significant risk for Serbian banks.
- We used several approaches to assess its severeness:
  1. modelling NPLs in order to forcast them using:
     - econometrical model,
     - ARIMA model;
  2. examination of the financial system resilience on NPL growth, w/o having CAR fall below 14.5% (12%).

Projection of NPL ratio using the econometrical model

- Greatest impact on NPL dynamics is exibited by the **exchange rate** (contributes around 60%).

Contributions of independent variables to the estimated monthly growth rate of share of NPLs in total loans *
(in pp)

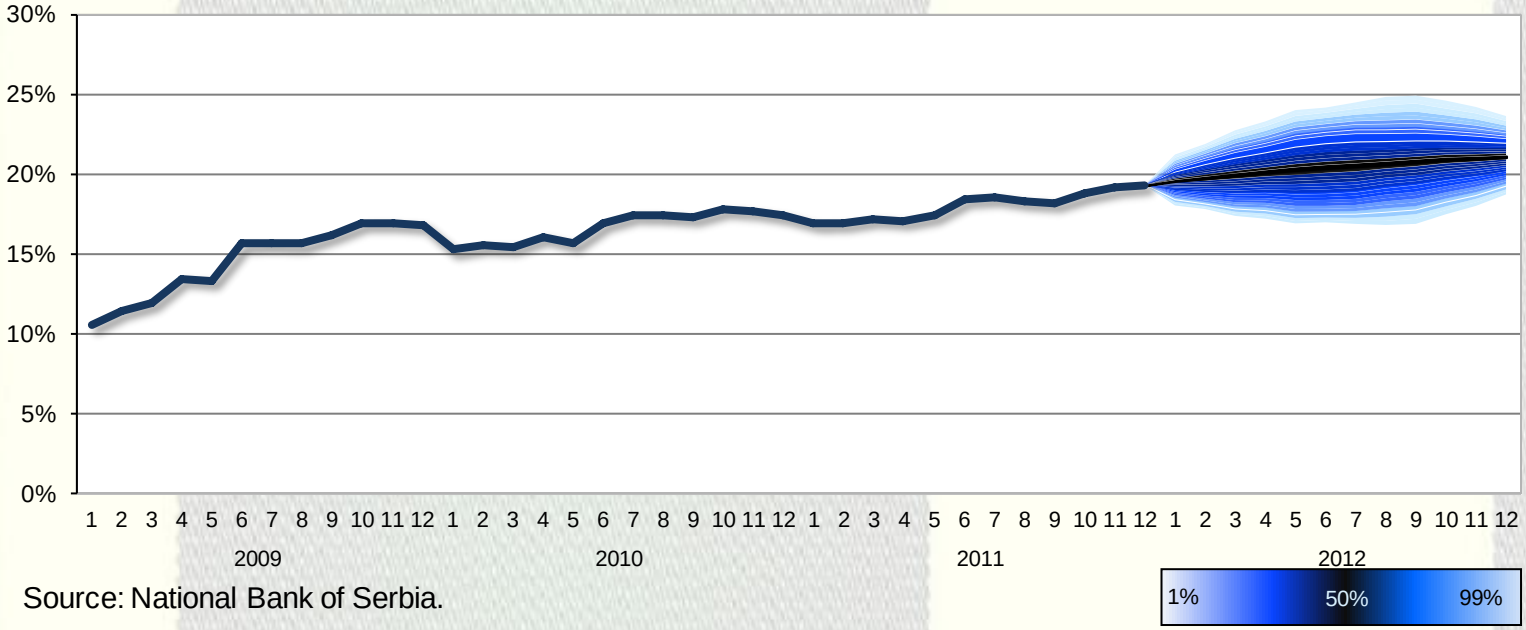


* NBS estimate.

- Assumed depreciation of 15% and 25% increases NPL ratio by 3.5-5.5 pp, which **doesn't reduce CAR below 14.5%**.

Projection of NPL ratio using the ARIMA model

- The model predicts growth in NPL ratio by the end-2012:
  - **moderate scenario:** over 3 pp,
  - **worst-case scenario:** around 6 pp;



Source: National Bank of Serbia.

- Projected NPL growth **doesn't reduce CAR below 14.5%**.

Examination of financial system resilience on NPL growth

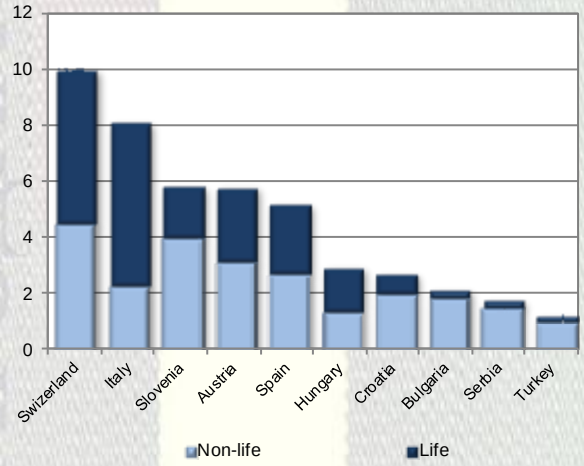
- In the final stage of the analysis we identified:
  - growth in NPL ratio which would reduce CAR to 14.5% (12%);
  - probability of growth in NPL ratio up to level that would reduce CAR to 14.5% (12%).
- Results of the analysis:
  - banking sector can apsorb an increase in NPL ratio by 6 pp (9 pp), w/o having its CAR fall below 14.5% (12%);
  - probability of reaching critical NPL growth is very low.

Non-bank financial sector 1/2

Insurance companies:

- Total premium = RSD57,3 bln;
- 1,7% GDP.

Chart **Premium to GDP in 2010**
(in %)

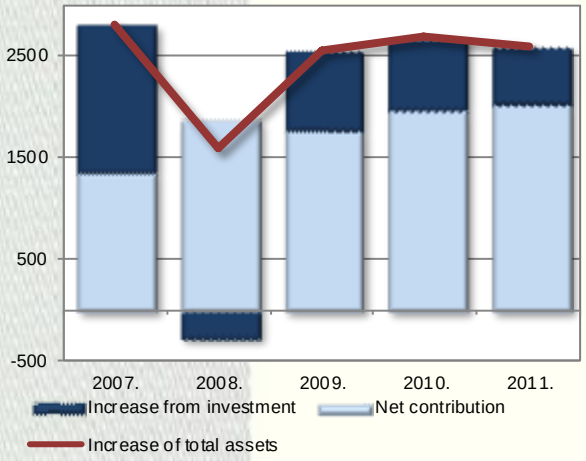


Source: Swiss Re, sigma No 2/2011, update Janaury 2012.

Voluntary pension funds:

- Total NAV = RSD12,45 bln;
- 0,39% GDP.

Chart **Annual increase in VPF net assets and net contributions**
(RSD mn)



Source: National Bank of Serbia.

Non-bank financial sector 2/2

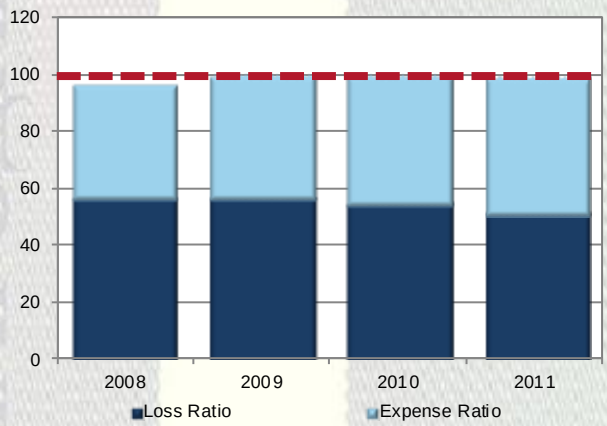
Insurance companies :

- Low profitability – high underwriting costs;
- Underdevelopment of natural hazard insurance.

Voluntary pension funds :

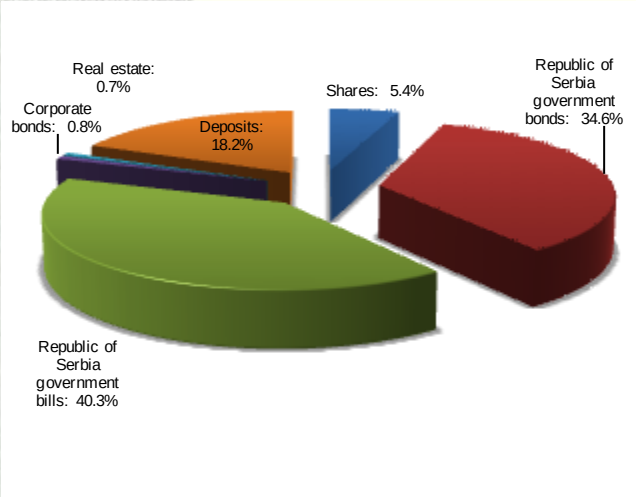
- Investment concentration risk;
- Financial instruments liquidity risk.

Chart **Combined insurance ratio**
(in %)



Source: National Bank of Serbia.

Chart **VPF investments, end of 2011**
(%)

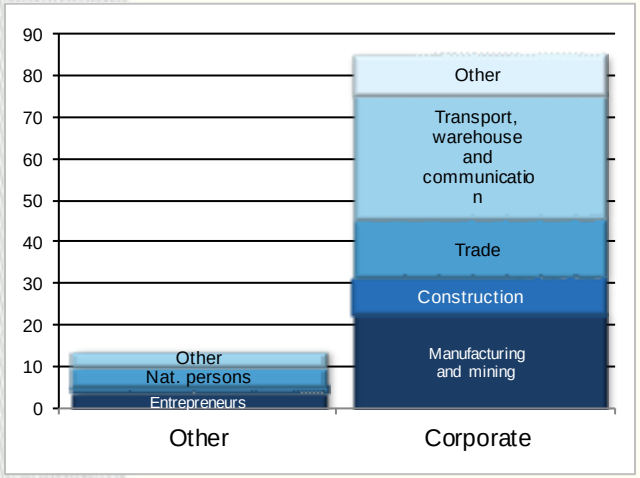


Source: National Bank of Serbia.

Financial leasing, broker-dealer companies, and investment funds

- Contraction in leasing operations due to strained liquidity and increased borrowing caution of households:
  - Decrease of revenues and balance sheet assets by fifth.
- Total balance sheet assets of broker-dealer companies declined by 11% relative to 2010, net financial result at RSD170 mln.
- Investment fund management companies posted a smaller loss in 2011:
  - Lower balance sheet assets;
  - Lower net assets.

Chart **Investment structure by lessee in 2011** (%)



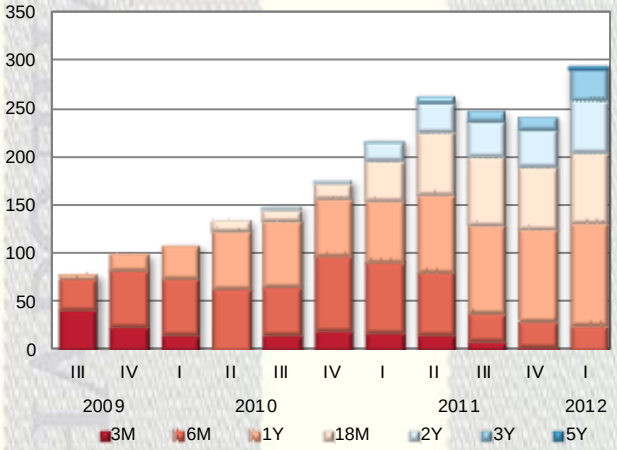
Source: National Bank of Serbia.

Financial and real-estate market 1/4

RSD government securities :

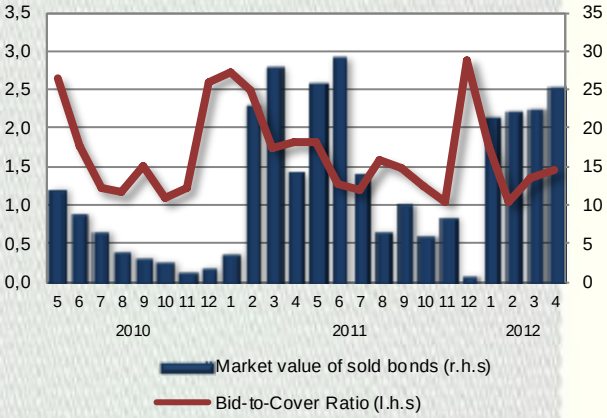
- Auctions relaunched in February 2009;
- Longest maturity 5Y (Jan 2012);
- Demand dependent on EUR/RSD exchange rate;
- Low participation of domestic institutional investors.

Chart **RSD government bonds, outstanding stock** (nominal value in RSD bn)



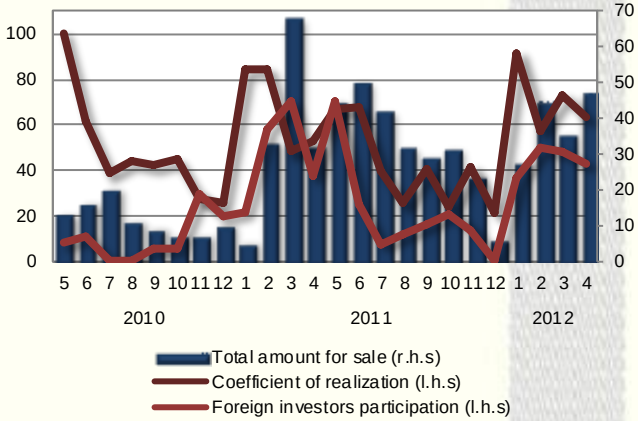
Source: Ministry of Finance.

Chart **Primary market demand for RSD government bonds** (auctions, RSD bn)



Source: Ministry of Finance.

Chart **Coefficient of realisation and foreign investor participation in auctions of RSD government bonds**



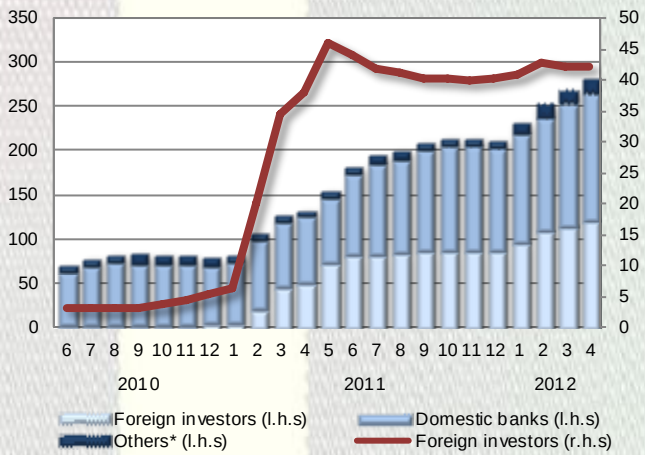
Source: Ministry of Finance.

Financial and real-estate market 2/4

RSD government securities – risks:

- Dependence on domestic banks and foreign investors;
- Underdeveloped secondary market.

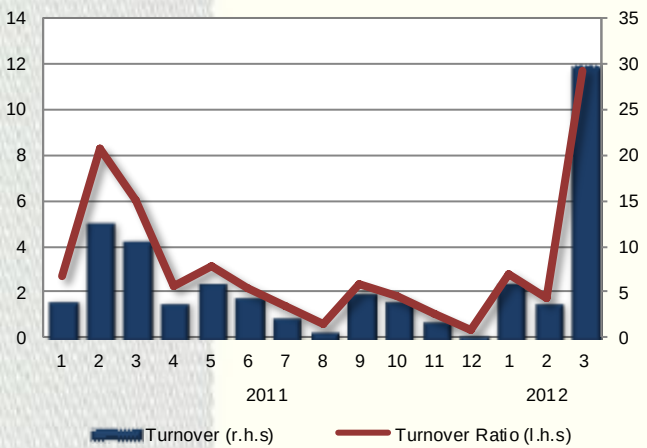
Chart **Primary market of RSD government bonds investors structure**



* Custody banks, insurance companies, vol. pension funds, and others.

Source: Ministry of Finance.

Chart **RSD government bonds monthly turnover**



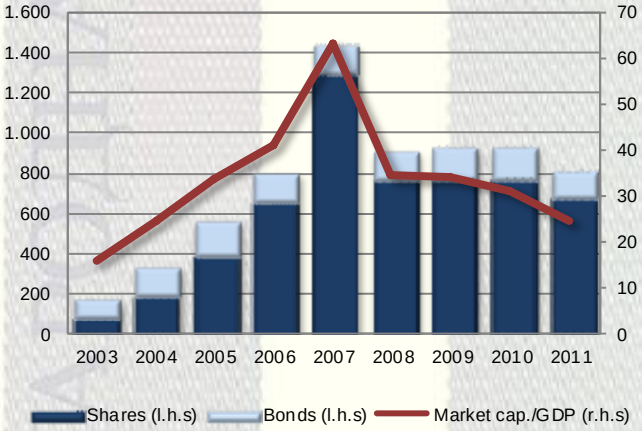
Source: Ministry of Finance.

Financial and real-estate market 3/4

Stock market:

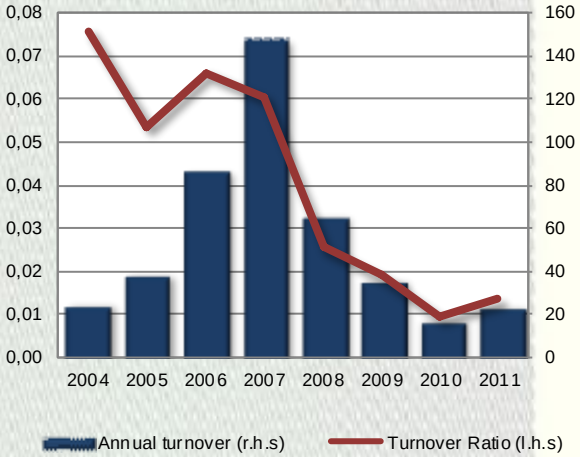
- "Inflated" market capitalization – high ownership concentration;
- Low liquidity;
- Drop of indices' values.

Chart **Belgrade Stock Exchange market capitalization**



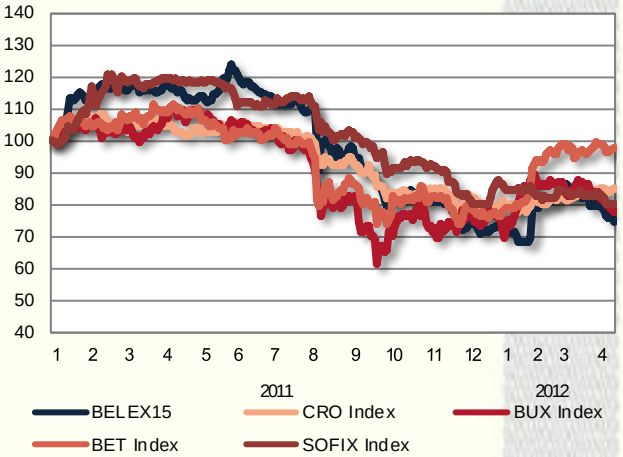
Source: Belgrade Stock Exchange, and National Bank of Serbia.

Chart **Belgrade Stock Exchange equity market turnover**



Source: Belgrade Stock Exchange.

Chart **CEE countries stock market indices**
(1. 1. 2011 = 100)



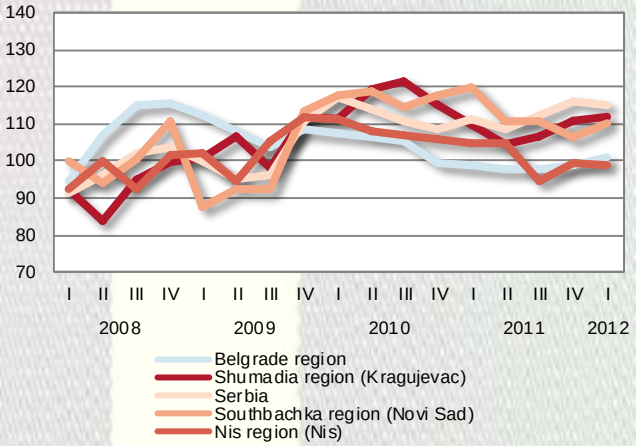
Source: Bloomberg.

Financial and real-estate market 4/4

Real estate market:

- Inability to adequately value property;
- No comprehensive index for property valuation and market monitoring.

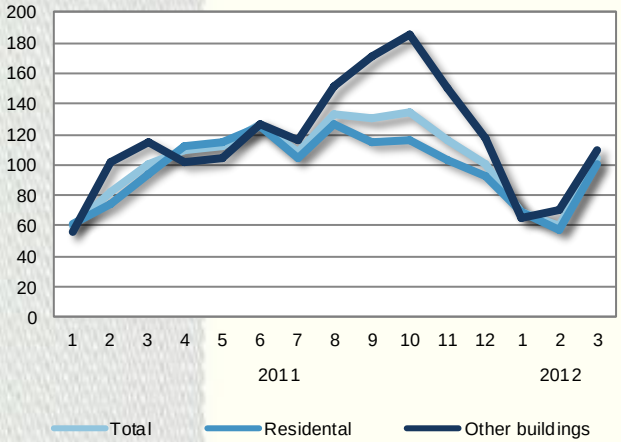
Chart **Real estate index DOMex**
(index, average 2002 - 2010 = 100)



Source: National Mortgage Insurance Corporation.

Chart **Indices of the number of issued new construction building permits**

(index, 2010 = 100)

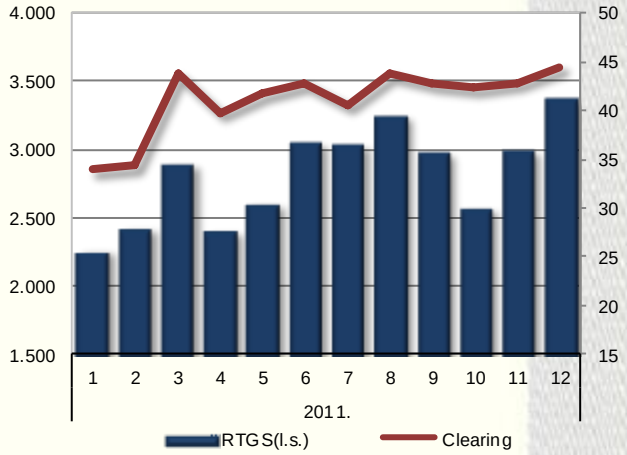


Source: Statistical Office of the Republic of Serbia.

Payment systems 1/2

- Role of NBS:
  - Operator of payment systems: RTGS, clearing, DinaCard, interbank FX clearing;
  - Oversight : focus on payment system operation as a whole, protect the entire financial system from a possible domino effect.

Chart **Turnover in RTGS and Cearing system** (in RSD bln)



Source: National bank of Serbia.

- Changes to regulations:
  - Draft Law on Settlement Finality: defines irrevocability and finality of transfer order, as well as “security instruments“;
  - Draft Law on Payment Services: opening of market for non-banks (more efficient and cheaper payment services);
  - Draft Law on Electronic Money (small value payments).

Payment systems 2/2

- Risks:
  - Credit risk: gross principle (RTGS), debit cup limits (clearing);
  - Liquidity risk : intraday credit (RTGS, clearing), setting priorities for transaction execution (RTSG) etc;
  - Operational: back-up location for the purpose of ensuring business continuity (RTGS, clearing).
- Impact of operational problems of two most significant participants in RTGS :
  - Significant risk to the entire system;
  - Implementation of the stop-sending rule may mitigate the negative effects.

Position of Macroprudential Policy

Policy	Direct Objective	Ultimate goal
MONETARY	Price Stability	Stable economic growth (economic system)
MACROPRUDENTIAL	Financial Stability	
MICROPRUDENTIAL	Soundness of financial institutions	Protections of consumers (individual institutions)

Source: Schoenmaker and Wierts (2011).

Macroprudential and microprudential policy

	Macroprudential	Microprudential
Proximate objective	limit financial system-wide distress	limit distress of individual institutions
Ultimate objective	avoid output (GDP) costs	consumer (investor/depositor) protection
Model of risk	(in part) endogenous	exogenous
Correlations and common exposures across institutions	important	irrelevant
Calibration of prudential controls	in terms of system-wide distress; top-down	in terms of risks of individual institutions; bottom-up

Source: Borio (2003).

Instruments of regulatory dinarisation

	2012	2013	2014	2015	2016	2017
Loans						
Currency clause limit[1), 3)]	70%	50%	45%	40%	35%	30%
Estimated client income in FX[1)]	•[4)]	•	•	•	•	•
FX risk hedging instrument[1)]	•	•	•	•	•	•
Tax on currency clause use[2)]	0%	0.5%	0.5%	1%	1.5%	2%
Subsidies for dinar loans only[2)]	•	•	•	•	•	•
Deposits						
Minimum FX deposit maturity[1)]		6M	1 год.	1,5 год.	Introduce minimum standard	•
Required reserve[1)]	•	•	•	•	•	•
Tax on interest on FX deposits[2)]		20%	25%	30%	35%	40%
Different insured amounts FX/dinars in €[2)]		25000/50000	15000/50000	10000/50000	10000/50000	10000/50000
Public debt						
Borrowing in dinars, exceptionally in FX[2)]	•	•	•	•	•	•
Development of dinar securities market[2)]	•	•	•	•	•	•

[1)] Instrument in the competence of the National Bank of Serbia.

[2)] Instrument that the Government may use by or propose its use to the National Assembly.

[3)] From aggregate loan amount.

[4)] Continuous implementation.

Instruments of preserving the purchasing power of dinar

Dinarisation instruments – price control

	2012	2013	2014	2015	2016	2017
Stable and low inflation[1)]	•[3)]	•	•	•	•	•
Subsidies to agricultural products[2)]	•	•	•	•	•	•
Subsidies to housing construction[2)]	•	•	•	•	•	•
Control on prices of medicines[2)]	•	•	•	•	•	•

[1)] Instrument in the competence of the National Bank of Serbia.

[2)] Instrument in the competence of the Government

[3)] Continuous implementation.

Regulatory recommendations 1/6

NON-PERFORMING LOANS (NPLs)

Banks and the Association of Serbian Banks

- **Banks – task forces for NPLs**

  Banks should address the issue of NPLs by utilizing adequate resources given the significance of this issue for a bank; banks should form special groups that would be specialized for this issue.

- **Consensual Financial Restructuring**

  It is necessary that banks engage in the process of financial restructuring and thereby to encourage out-of-court resolution of NPLs.

- **Training of the staff**

  It is necessary that banks are working intensively on the training of the dealing with NPLs.

- **The active role of the Association of Serbian Banks**

  The resolution of NPLs should be the Association's priority. It should launch a collective action of resolving NPLs.

Regulatory recommendations 2/6

NON-PERFORMING LOANS (NPLs)

Government and other authorities

- **Tax legislation - should not hamper the resolution of NPLs**

  Tax legislation should not hamper the resolution of NPLs. The transfer and/or assignment of the NPLs should be free of tax burdens, and in the case of consensual financial restructuring, the amount that is written-off should be exempt from taxable receipts of all parties to the restructuring.

- **The regulatory framework in the area of collaterals, out-of-court settlement, execution and tax obligations should be generally upgraded**

  Out-of-court settlement (more precisely, a failed attempt to settle), supported by adequate evidence, should be accepted as one of the conditions for the write-off of claims against bank's expenditures.

- **The procedure of NPL pricing**

  It is necessary to legally specify the procedure of NPL pricing when these are assigned, which should include the assessment performed by a panel of specialized experts.

- **It is necessary to develop a regulatory framework to govern the operation of asset management companies (AMC)**

  These companies are established for the purpose of buying off, managing and collecting non-performing assets – which means that they are specialized in resolving NPL issues.

Regulatory recommendations 3/6

NON-PERFORMING LOANS (NPLs)

Government and other authorities – cont.

- **Personal insolvency**

  Personal insolvency proceedings can accomplish several goals. The debtor is given the opportunity for a fresh start, while the unsecured creditors are provided with the collective, balanced, fair and compulsory settlement which speeds up the procedure of resolving NPLs.

- **Government resources should be the last resort when solving NPLs**

  Government's financial assistance to banks aimed at resolving NPL issues creates incentives for the passive behaviour of banks with respect to the timely resolution of this issue. This is why government resources should only be used in exceptional cases, for the systemically important banks, and when the stability of the financial system is directly threatened.

Regulatory recommendations 4/6

NON-PERFORMING LOANS (NPLs)

National Bank of Serbia

- **It is necessary to set up a task force for the resolution of NPLs**

  The successful resolution of this issue requires a system-wide approach. Such approach should include all relevant public and private stakeholders due to the very nature of NPLs. The said task force should include representatives of the Association of Serbian Banks, the National Bank of Serbia, Ministry of Finance, and Ministry of Justice.

- **Cession of NPLs**

  Facilitate the assignment of claims by abolishing the existing restrictions in order to achieve their collection and remove toxic assets from banks` balance sheets.

- **When supervising the operations of banks, the National Bank of Serbia should also control the transfer pricing adjustments**
- **Constant improvement of the regulatory framework under the competence of National Bank of Serbia is needed**
- **In cooperation with other authorities and relevant associations, the licensed real estate appraisers should be introduced, as real estate is the most important form of collateral**
- **Education regarding NPLs should be improved**
- **The National Bank of Serbia should participate in all regional and international initiatives aimed at resolving the issue of NPLs**

Regulatory recommendations 5/6

CRISIS MANAGEMENT FRAMEWORK

- **Envisaging bank recovery plans**

  Banks should be responsible for the development recovery plans including different scenarios that would ensure their timely and efficient response to systemic events.

- **Envisaging bank resolution plans**

  Competent authorities should be responsible for the development of resolution plans, a measure to be employed in case of failure of the recovery plans. Such plans envisage restrictions of shareholder and creditor rights.

THE RISK OF EUROISATION

- **Restriction on the use of FX clause**

  A restriction on the use of FX clause should cap the aggregate amount of newly approved FX-indexed loans and enable a phased introduction of a new standard (e.g. 70% cap on the aggregate amount of newly approved FX-indexed loans in the first year, 60% in the second, 50% in the third year, etc.).

- **Different insured amounts and insured premiums for FX/dinar deposits**

  Regulatory changes should differentiate between insured amounts and insurance premiums for FX and dinar deposits, encouraging the growth of dinar deposits.

- **Subsidies only for dinar loans**

  Regulatory changes should limit subsidised loan financing by the Government to non-FX-linked dinar loans only.

Regulatory recommendations 6/6

PUBLIC DEBT

- **Public debt reduction programme**

  A programme should be adopted for lowering the general government debt relative to GDP complying with the fiscal rule on 45% of GDP.

- **Dinar-only borrowing (allowing FX loans only exceptionally)**

  A fiscal rule should be adopted stipulating dinar-only borrowing by the government and local government bodies and allowing FX borrowing only in exceptional cases. This would help reduce the FX exposure of state and local government budgets which could easily translate into credit risk.

- **The government should start issuing longer-term government bonds**

  The dinarisation of public debt should go in parallel with intensive government efforts toward the issuance of longer-term government bonds and further growth of the respective market.

Recommendations for changes to applicable laws in order to enhance dinarisation

- The laws that should be amended in order to enhance dinarisation:
  - **The Law on Foreign Exchange Operations** (allows payments in foreign currency in real estate transactions, lease of real estate, as well as payments of life insurance premiums),
  - **The Law on Deposit Insurance** (the difference should be made between insured amounts and premiums in dinar deposits and in foreign currency deposits),
  - **The Law on Trade** and **The Law on Advertising,**
  - **The Law on Public Debt,**
  - The new **Law on Capital Market** (uses exclusively euro as a unit of value, except in punitive provisions),
  - **The Law on Banks,**
  - **The Insurance Law** and
  - **The Law on Property Restitution and Compensation.**
- On the other hand, only few regulations explicitly support use of dinar as a unit of value:
  - The new **Company Law,**
  - **The Law on the Protection of Financial Services Consumers** obliges banks and leasing companies to give their initial offers to consumer in dinars.

Recommendations for changes to applicable Government decrees in order to enhance dinarisation

- The analysis of Government decrees (2009-2011) indicates that certain decrees support use of foreign currency:
  - **incentives for construction industry,**
  - **incentives for investments without specified purpose,**
  - **incentives for the production of automobiles and**
  - **Incentives for tourism.**
- **Positive and encouraging trends** towards the use of dinar as a unit of value have been found in the following decrees:
  - incentives for agricultural production,
  - incentives for the production of tractors, buses and trucks,
  - incentives for consumption and
  - subsidies – liquidity maintenance and financing of long-term current assets.
- However, there are some decrees where dinar has already been used as an indisputable unit of value:
  - incentives for lifestock breeding and
  - incentives for the production of milk and meat.
- The Memorandum on the dinarisation strategy – **"The Government will only provide new loan subsidies if such loans are in dinars"**

Genesis of Regulatory Eurisation

- **1978** – The Law on Contracts and Torts (LCT) explicitly proclaims the principle of monetary nominalism (Article 394) and prohibits index clause (monetary obligation in domestic currency is linked to the change in prices of goods or services, or inflation – Article 396) – **pure form of monetary nominalism**.

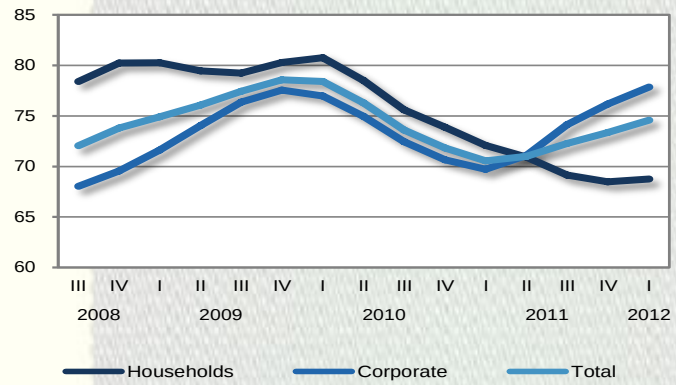
- **1993** – Due to hyperinflation, the LCT was amended and the prohibition of index clause was removed (Article 396 was deleted). The debt valorization is allowed henceforth – **monetary valorism**.

- **1993** – The Law on Default Interest Rate specified that default interest rate was **composed of retail price growth rate** and a fixed rate of 1.2% - **monetary valorism**.

- **Since 2002** – The Law on Foreign Exchange Operations specifies that contracts in the country may be concluded in foreign currency, provided payment and collection are effected in dinars (free use of currency clause) – **extreme monetary valorism**.

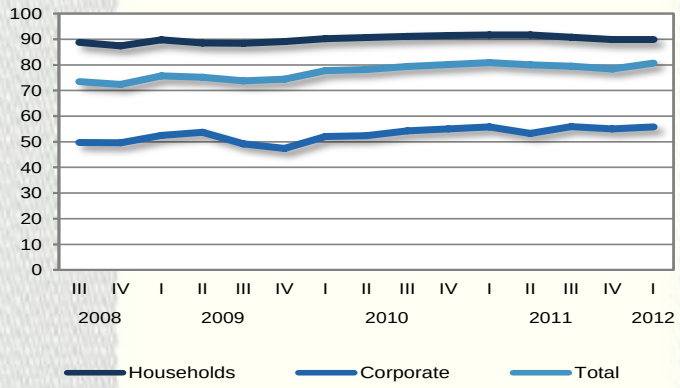
High level of eurisation, even in comparison with regional standards

Share of FX and FX-indexed loans in total loans, excluding cross-border loans
(%)



Source: National Bank of Serbia.

Share of FX and FX-indexed deposits in total deposits
(%)



Source: National Bank of Serbia.
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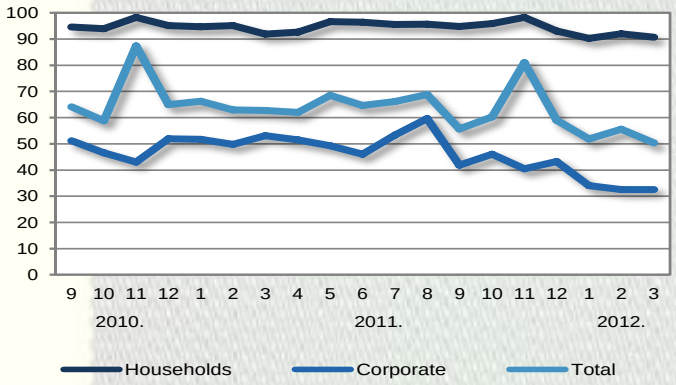
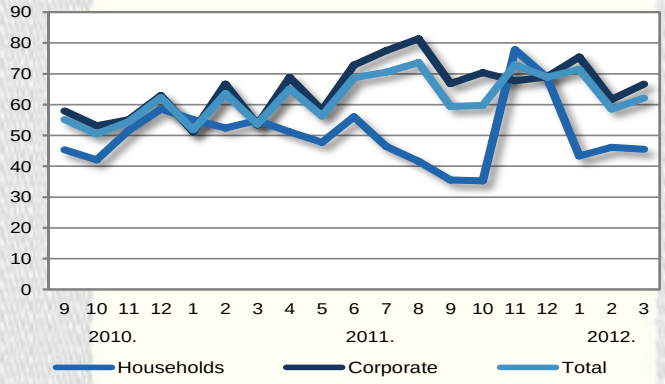
Share of FX and FX-indexed deposits in newly-received deposits
(%)



Source: National Bank of Serbia

Share of FX and FX-indexed loans in newly-extended loans
(%)



Source: National Bank of Serbia.

Regulatory Concept of Dinarisation – why now?

- **Significant risk of threatening the financial stability** due to the lack of hedging against FX risk in the real sector (households and companies)
- The roots of high euroisation and the absence of risk protection:
  - **long history of high and volatile inflation;**
  - **lack of confidence in the commitment of fiscal authority to a low and stable inflation,** due to the frequent turnaround from fiscal integrity;
  - **lack of hedging instruments;**
  - **underdeveloped dinar financial market;**
  - **political decisions that have favored the use of euro**.
- Since the Report is completed in the moment when the new Government and the new National Assembly should be constituted, considerable attention was given to the necessary regulatory shift - **Regulatory Concept of Dinarisation**.