SPOTLIGHT ON:

Non-performing Loans in Serbia – What Is the Right Measure?

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On the basis of data provided exclusively to *QM* by the Credit Bureau of the Association of Serbian Banks, we have learned that non-performing loans make up no more than 9.1% of total bank claims. The figure is much more favorable than the one taken as the measure of the stability of the Serbian financial system by the international community and foreign investors – that bad loans account for over 20% of total outstanding loans. The latter indicator was calculated in accordance with the methodology prescribed by the NBS which, however, defines non-performing loans ambiguously and not in line with international practice. This article explains why we consider the first figure to be the more credible one. Now that the Credit Bureau has started monitoring this essential indicator, we point out that its further development should be watched carefully, in particular because of the current credit boom in the Serbian banking system.

1. Definition of Non-performing Loans

Non-performing loan or bad loan is bank claim on the extended loan once the borrower fails to make payment on the due date and/or the value of the collateral has been eroded or disappeared for economic reasons.[1] The IMF definition[a)] is more precise, saying that non-performing loans are all claims on extended loans where payments of pricipal and interest are overdue by 90 days or more, or less than 90 days when there are other reasons to believe that the bank will not be able to collect the total claim on loan. The IMF also recognizes the stricter definitions of local supervisory guidance, i.e. a delay of less than 90 days if, for example, debtor files for bankruptcy. Not all countries use the same definition of non-performing loans (NPL), but they tend to converge under the indicator calculated as the ratio of gross loans with overdue payments by 90 days or more to total claims on loans in the whole banking system.[b)]

a) IMF, Compilation Guide on Financial Soundness Indicators, 2004

b) Freeman (2004)

2. Macroeconomic Significance of the Non-performing Loans Indicator

This indicator is among the most illustrative synthetic indicators of the quality of financial intermediation, stability of the financial system and, to an extent, the credit risk of an entire economy. This is why it is attentively followed by international financial institutions[c)] and investors. Non-performing loans in the banking system of a country are one of the factors that have an effect on that country's credit rating (e.g. ratings of international agencies such as Fitch, S&P).

c) The IMF is moving toward including statistics on non-performing loans in the System of National Accounts (Freeman, 2004).

Studies of banking crises have shown that the accumulation of NPL in bank balances is one of the main signals of a crisis.[d)] According to empirical studies, episodes of major credit expansion prompted by liberalization of financial systems and opening of capital accounts, were the

d) See, e.g. Demirgurc-Kunt, Detriaglache (1997).

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1 The OECD Economic Outlook: Sources and Methods

e) Kaminsky (1998).

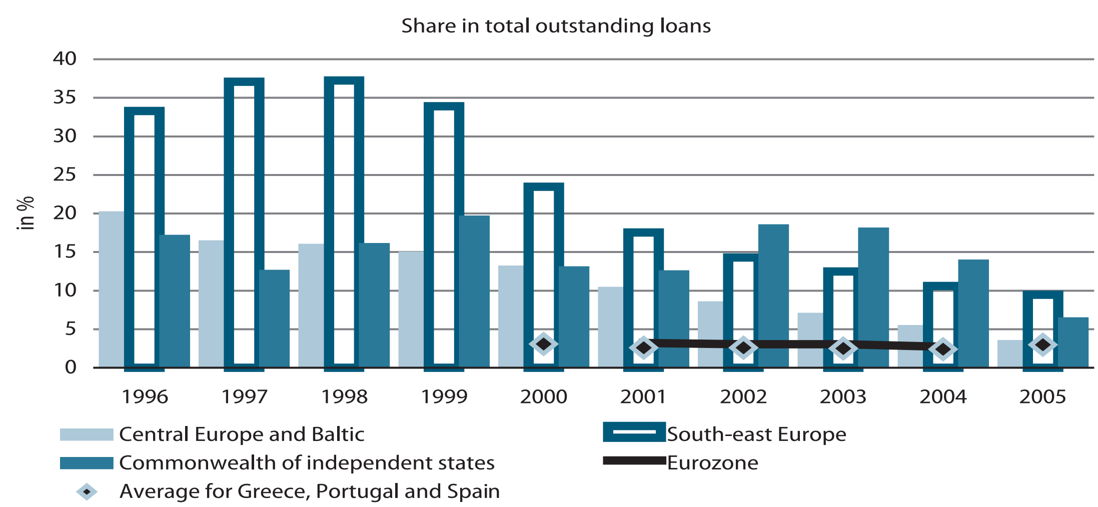
precursors of banking crises.[e] An outstanding example is the South-east Asia crisis of 1997, which, coupled with a balance of payments crisis, came once the financial markets of these countries were flooded with foreign capital and following the relaxation of loan approval standards.

3. Non-performing Loans in Transition Economies

Banking in transition countries has a specific history and non-performing loans are an inextricable part of it. When they embarked on transition, all these countries had high levels of accumulated NPLs, a legacy of the era of centrally planned economies when little heed was paid to credit risk when extending loans. As transition evolved and their banking systems were reformed, the share of NPLs fell. Some countries, however, still experienced major or minor crises even in the later stages of transition, during which the level of non-performing loans always rose. These periods occurred most frequently during so-called credit booms (with total credit growing at double- and even triple-digit annual rates) when banks, as a rule, relaxed their criteria and granted loans to riskier categories of borrowers. Though a direct causal relationship between credit expansion and banking crises, i.e. increase in NPLs, has not been proven, above-average growth of total loans to the non-government sector in an economy is a signal of alert and of the necessity to carefully monitor the NPLs indicator, especially if a tightening of the monetary policy is in the offing.

Nonetheless, viewed as a whole, the countries in transition have cut back to a moderate level the share of non-performing loans in total loans to the non-government sector. In central Europe and the Baltic countries, NPLs have come close to the euro-zone level of 3%-4% of total loans, while the average in South-east Europe, including Serbia, was slightly below 10% in 2005 (Graph L1-1).

Graph L1-1. Non-performing Loans in Transition Countries



Source: EBRD, Transition Report 2006.

Table L1-2. NPLs in Comparable Countries

	2005
	in %
Bulgaria	3.8
Croatia	7.2
Czech Republic	4.0
FYR of Macedonia	22.2
Hungary	3.1
Poland	12.9
Romania	6.1
Slovenia	6.4

Source: EBRD, Transition Report 2006.

4. Microeconomic Significance of NPLs and Monitoring Methodology

The level of NPL in the total loans of a *particular bank* is the result of **credit risk mangement.**[f)] The quality of risk management depends on the quality of a bank's management and how prone it is to taking risks.

f) The risk of the borrower failing to make payment on his loan.

Supervisory bodies of banking systems also monitor and check the soundness of banks, i.e. the level of undertaken credit risk within individual banks as a part of prudential supervision (monitoring the financial soundness of the *entire financial sector*). Prudential supervision is present in all market economies and is performed by a variety of institutions (central bank, independent supervisory and regulatory bodies, agencies, commissions and the like). In Serbia, it is entrusted to the National Bank, specifically its Division for Control and Supervision of Banks and Other Financial Organizations.[2] More and more countries are basing their prudential supervision on the recommendations of the Bank for International Settlements (BIS) in Basle.[g)] As part of the conduct of prudential supervision, besides other indicators of risks to bank operations (largest loans, loans to related parties and similar), the level of non-performing loans is monitored regularly.

g) BIS, Core Principles for Effective Banking Supervision.

Regular classification of credit portfolios of banks in accordance with the degree to which repayment is likely is one of the main instruments of credit risk management.[3] The classification rules are in some countries left to each individual bank, with the provison that they must respect the International Accounting Standards in assessing the probability of payment and value of claims. In other countries, the rules are laid down by the institution charged with regulating the banking sector. Though there are no uniform criteria at the international level, overdue payments are usually the main criterion, with the loan most often being classified as non-performing when the delay exceeds 90 days. Loans are classified at the time of their approval (e.g. low-risk category) and reclassified during the period of repayment. A loan will change its category if there is any change in the conditions affecting payment (e.g. the borrower is late in making payments) in the view of the bank management or the regulatory body if the criteria for classification are prescribed.

5. Non-performing Loans in Serbia

In Serbia, the NBS lays down the criteria for classification of loans, which banks are obliged to implement at the end of each quarter. Appendix 1 sums up the criteria upon which bank claims are categorized into five groups (A, B, C, D, E) according to the probability of repayment. These criteria are: *delays in making payments on loans, harmonized cash flows of the borrower, the financial result of the company in the preceding period, the structure and level of capital of the company, the quality of the loan collateral*.

Though exact figures are not available, it is believed that bad loans made up some 80% of the banking sector's assets in early 2001. Rehabilitation, bankruptcies, and liquidation - primarily of the four largest state-owned banks, cleansed the banking sector's portfolio of the inherited non-performing loans. Enforced implementation of existing and introduction of new measures of prudential supervision in accordance with the developed countries' standards strengthened banks' risk management by imposing stricter criteria. In parallel, the role of the NBS and supervision of banks was also reinforced. Nontheless, credit expansion since 2002 calls for caution with regard to the level of non-performing loans in Serbia.

2 Supervision of bank operations, a part of the goal of preserving the stability of the financial system, which is entrusted to the NBS in Serbia, is laid down in in Article 3, Law on the National Bank of Serbia, Official Gazette No. 72/2003.

3 Another instrument that relies on this classification are provisions for potential losses. The purpose is to prevent reduction of banks' capital and distribution of current profits from lending if there is a risk that part or the total amount of a loan will not be recouped. In developed countries, the choice of the policy of provisioning is left to individual banks, while in countries with less developed institutions and legal systems it is prescribed by the regulatory body. As a rule, in the latter case, an adequate level of loan-loss provisions (percentage of every category of assets) is determined on the basis of relevant factors affecting payment of credit portfolios (prior experience with losses, going to the courts to ensure payment through the sale of collateral, quality of management in loan approval, changes in the business and economic climates in the country and region, etc.). Practically speaking, provision is a current- period expenditure for the bank and therefore also plays another role – to make a specific loan more expensive if the borrower was placed in a risk category when his loan was approved, and thus discourage banks from risking their funds.

h) IMF, Country Report No. 06/384, Article IV, p. 16.

In a March 2006 report[h)], the IMF cited the figure 20.7% and warned of the high level of NPL in Serbia. As the non-performing loans ratio, it used the indicator of the share of loans classified in categories C, D, and E (according to the NBS criteria) in total loans.

Since (a) calculation of this indicator of non-performing loans involves loans on which payment is delayed and a variety of other criteria, and (b) regulations envisage that all loans of a borrower be classified in the same category of risk of the least favorably classified loan of that borrower,[4] we consider the indicator inappropriate and endeavor below to establish a better measure of non-performing loans based only on delays in payment.

Besides the measurement of NPLs being ambiguous and not comparable with the internationally accepted methodology, this indicator also poses a problem with regard to monitoring developments over time. Because the NBS occasionally changes or introduces new criteria for classifying certain loans as risky,[i)] it can happen that the loan from one period is classified more strictly in a next period.[5] This results in an increase of the value of the indicator calculated on the basis of the same loans.

i) E.g. loans to households where the monthly installment exceeds 30% of income were first in category A, and then moved to category C in late 2004 and to category E in July 2006. In its report, the IMF too expresses reservations about this.

We therefore consider that the indictor measures something other than non-performing loans, which could be called "average apparent risk of borrowers" or "evident legal-financial quality of borrowers." Table L1-3 shows that the indicator has not been reduced appreciably in the last three years in spite of the undeniable progress of financial sector reform. The level fell only in state-owned banks, and rose in the other two ownership categories. Especially suprising is that foreign banks' share of risky loans has risen from year to year, as they were expected to introduce more effective risk management into the domestic banking system.

Table L1-3. Serbia: Non-performing Loans[1)]

	Dec 04	Dec 05	Mar 06
		in %	
Total	22.2	23.8	20.7
State-owned banks	41.2	37.7	25.0
Domestic private banks	46.6	51.8	49.7
Foreign owned banks	10.0	16.0	16.1

Source: IMF Country Report No. 06/384.
1) Ownership structure on 31 March 2006; non-performing loans include categories C, D, and E for which loan-loss provisions amounting to 25%, 50% and 100% respectively are required.

The level of this indicator and its failure to drop with the advance of the reform of the financial sector is a reason for caution. There is a possible explanation for why this is happening, i.e. why the financial picture of the whole non-government sector is not improving on average: since banks are recording market expansion, it may be that the number of borrowers is becoming bigger; banks now know their clients better and are less wary and more open to grant loans to borrowers who, on the basis of information available to all (financial statements, accounting records, and their payment record) may not seem creditworthy at first sight, but are seen by banks to have potential and to be trustworthy. In that case, banks are prepared to pay the price of granting loans to clients classified as risky by the NBS classification, in the form of loan-loss provision.[6]

4 This practice would be understandable in developed countries, but in the Serbian economy where delays in payment are usual and tolerated, it does not seem very justifiable to classify loans which are being regularly repaid as non-performing if the borrower is late in making payments on only one of his loans.
5 It seems that, with these measures, the NBS is using prudential supervision as an instrument of monetary policy when it deems necessary. In other words, since classification is the basis for provisions, in the concrete example the loan becomes more expensive for the bank and discourages it from lending to that category of clients.
6 An amended Decision on the Classification of Banks' Balance-sheet Assets and Non-balance Items entered into force on 1 October 2006. Besides the setting of level of loan-loss provisions by banks themselves, it also introduces allocation of reserves from profit. The percentage of the required reserves and provisioning for categories from A to D remained unchanged: 2%, 10%, 25%, 50% and 100% respectively.

Credit Bureau – a Factor of Stability of the Financial Sector and Source of Precise Information on Non-performing Loans

Credit bureaus collect information on the creditworthiness of banks' clients - enterprises and households. They are important because they enable banks to be better informed when approving loans, thereby upgrading their assessments of potential clients and ultimately, by reducing the costs of banks not having proper information on borrowers, raising the effectiveness of financial intermediation.

In Serbia, Credit Bureau was founded by the Association of Serbian Banks in late 2004, what was – one can say - in the early stage of the development of the banking sector. The Bureau's first task was to establish a register of loans to households and, as of 2006, of all loans to companies and entrepreneurs. Banks report all their approved loans to the Bureau, as well as changes that occur with regard to the remaining claims on extended loans. In this way, every delay in making payments on loans to households exceeding 60 days, and on loans to enterprises and entrepreneurs exceeding 15 days, is registered. Every bank may request infromation on a client, with the prior approval of the client, and receives reports on his indebtedness and regularity in meeting payments owed to all banks. The information is kept for three years after loans have been repaid in full, so that banks are able to obtain information on clients' past records. The data is confidential and protected with effective IT support.

The existence of such a complete and reliable data base in Serbia is important for the stability of the whole financial system, particularly at a time of high credit growth.

For the first time, the Credit Bureau synthesized for this analysis data on the total bank credit, its structure and, most importantly, the total amount of delayed payments (Tables L1-4 and L1-5). *QM* will henceforth monitor developments in these indicators.

According to the Credit Bureau's data, credit to companies dominates in total credit to the non-government sector (30% of GDP) with 65.9%, while credit to households acounts for 31.7%, and to entrepreneurs for only 2.5% (Table L1-5, column 2). Almost half the credit to households consists of very short-term cash loans granted for unspecified purposes (14.9% of total credit to the non-government sector), while housing loans account for only 7.8% of the total loans to non-government sector. Loans to enterprises average 8.7 mn dinars (110,000 euros), and to households 163,000 dinars (2,000 euros), while the average housing loan stands at 1.8 mn dinars, or 23,000 euros (Table L1-4, column 3).

Though, on the one hand, the delay in payments on loans to enterprises and entrepreneurs is at least 15 days and, on the other, at least 60 days on loans to households, the share of loans with delayed payments in the total amount of overdue loans to the non-government sector is 9.1%. Enterprises owe the largest share, 11.9%, of the outstanding debt on loans with payments overdue by 15 days and more (Table L1-4, column 7), which represents 85% of the total loans with delays in payments of the whole non-government sector (Table L1-5, column 4). The figure for entrepreneurs is 8%. Households have the least amount of outstanding loans on which payment is delayed (60 days and more), and their share in total outstanding loans to households is only 3.7%. The share of loans on which payments are overdue by 90 days and more, which is the most frequently used measure of non-performing loans in other countries, would be, both for the whole non-government sector in Serbia and for individual types of borrowers (enterprises, entrepreneurs and households) significantly lower. Hence, as we see, NPLs are certainly below 20% of total claims as believed thus far.

Table L1-4. Outstanding Debt and Overdue Payments on Bank Loans to the Non-government Sector, as of 8 December 2005

	No. of loan contracts	Total outstanding loans	Average claim by loan (1 : 2)	Loans with overdue payments	Total loans with overdue payments	Total overdue payments	Share of loans with overdue payments in total loans (5 : 2)	Share of overdue payments in total loans (6 : 2)	Loan contracts with overdue payments in total loans contracts (4 : 1)
		in millions of dinars	in dinars		in millions of dinars	in millions of dinars	in %	in %	in %
	1	2	3	4	5	6	7	8	9
Total loans (to non-gov. sector)	**1,095,125.0**	**605,657.6**	**553,048.8**	**47,800.0**	**55,647.5**	**25,457.4**	**9.1**	**4.2**	**4.4**
o/w:									
To enterprises	45,792.0	399,069.8	8,714,837.3	6,867.0	47,306.5	22,647.4	11.9	5.7	15.0
To entrepreneurs	30,571.0	14,872.9	486,503.9	2,567.0	1,186.7	551.9	8.0	3.7	8.4
To households, total loans	1,018,762.0	191,714.9	188,184.2	38,366.0	7,154.3	2,258.1	3.7	1.2	3.8
Cash loans	550,637.0	90,227.9	163,860.9	23,256.0	3,306.3	999.0	3.7	1.1	4.2
Consumer	274,596.0	17,043.1	62,066.1	9,550.0	802.3	378.8	4.7	2.2	3.5
Adaptation	2,003.0	785.5	392,161.8	122.0	42.6	29.1	5.4	3.7	6.1
Mortgage loans	25,466.0	47,160.7	1,851,908.0	494.0	1,254.6	155.3	2.7	0.3	1.9
Other	164,008.0	35,070.9	213,836.5	4,863.0	1,712.7	687.0	4.9	2.0	3.0
Agriculture	2,052.0	1,426.8	695,316.8	81.0	35.8	8.9	2.5	0.6	3.9

Source: Credit Bureau, Association of Serbian Banks.

Table L1-5. Structure of Total Debt and of Debt with Overdue Payments

	No. of loan contracts	Total outstanding loans	Total loans with overdue payments	Total claim on loans with overdue payments	Total overdue payments
	1	2	3	4	5
			share in total, in %		
Total loans (to non-gov. sector)	100.0	100.0	100.0	100.0	100.0
o/w:					
To enterprises	4.2	65.9	14.4	85.0	89.0
To entrepreneurs	2.8	2.5	5.4	2.1	2.2
To households, total loans	93.0	31.7	80.3	12.9	8.9
Cash loans	50.3	14.9	48.7	5.9	3.9
Consumer	25.1	2.8	20.0	1.4	1.5
Adaptation	0.2	0.1	0.3	0.1	0.1
Mortgage loans	2.3	7.8	1.0	2.3	0.6
Other	15.0	5.8	10.2	3.1	2.7
Agriculture	0.2	0.2	0.2	0.1	0.0

Source: Credit Bureau, Association of Serbian Banks.

It should be kept in mind, however, that there exist ostensibly good loans which are probably not included in the indictor used by the IMF (calculated by the NBS) or the indicator of the Credit Bureau brought out here. In the Serbian economy there are several major hotspots of the so called "illiquidity" (toleration of delayed payment of debt), namely large public companies and some government bodies. Their delays have a ripple effect, spreading to their creditors – banks and suppliers, with the latter also being late in paying their own creditors. Because of the size and market power of these major borrowers, banks endeavor to solve the problem by rolling-over the loans, or with annexes to contracts that alter the initial terms (primarily the maturity date). Due to the implicit government guarantee, these loans are classified as the least risky. Until this burning issue is dealt with, no improvement in collectibility of debt can be expected.

6. Conclusion

In this article, *QM* brings out the NPLs indicator which, based on the data of the Credit Bureau, though not using the same overdue criterion for household and for enterprise loans, is 9.1%. The indicator would certainly be considerably lower if, instead of 15 and 60 days, the criterion of 90 and more days had been applied, which is the prevailing criterion and the internationaly accepted definition of a non-performing loan.

Exercising maximum caution, the NBS has tried to identify all possible sources of credit risk and has come up with a classification of outstanding claims according to the degree of their collectibility that does not allow for unambigous measuring of non-performing loans. Publication of that figure is a disservice since it sends out a worse picture to the international community about the credit risks in the Serbian economy than is really the case. Now that calculation and monitoring of the indicator for overdue loans in the entire banking sector has been established, its further development should be closely followed. Based on the practice in developed countries, it is also recommendable to make it obligatory for banks to publish data on the share of non-performing loans in their portfolios. The object is to enhance transparency of bank operations, which, as a rule, encourages market discipline of banks since it enables clients to keep an eye on how their banks are working. In developed countries, this is a credible complementary mechanism to the supervision of banks by regulatory bodies.

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Appendix 1: Criteria for Classification of Bank Claims in Accordance with Degree of Collectibility

Criteria[1)]	Risk categories				
	A	B	V	G	D
Overdue payment by	30 days, exceptionally	31 to 90	91 to 120	121 to 180	over 180 days
Assessment of borrower's cash flows	harmonized	appropriate (i.e. positive cash flow in the previous business period) but actual financial picture point out to potential future problems	inappropriate, assets and liabilities maturity structure does not correspond to the borrower's activity	illiquid borrower	borrower is under bankruptcy
Borrower's capital structure and level			capital structure and level do not correspond to the borrower's activity	unsound borrower	
Borrower's disclosed profit				disclosed loss	
Legal status of the claim					legally disputed
Borrower's file with bank					uncompleted and not up to date
Household loans collateralization and provision with adequate income					loan collateralized with deposit of less than 20% of outstanding loans, monthly payment exceeds 30% of monthly household's income

Source: NBS, Decision on the Classification of Bank Balance-sheet Assets and Off-balance-sheet Items.
1) All claims on a single borrower (except when legally disputed) are put into one category – the least favorable one for that borrower.