



SPI Project:

**Expansion of Credit Bureau Services**

Preliminary Impact Assessment

November, 2006

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# Background\* - 1

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The Credit Bureau system is going to be developed in 3 phases:

- Phase I – negative information received only from banking sources (completed in August 2004);
- Phase II – negative and positive information (outstanding credits) collected from banking and non-banking institutions (ongoing, started in August 2005);
- Phase III – implementation of value added products, including the credit scoring (no implementation calendar for the time being).

At present, 27 banks share negative information (accounting for 96 percent of the retail market) of which 7 banks (accounting for 26 percent of the market) also share positive information.

The incentives for sharing negative information consist of banks being able to better ascertain the good borrowers from bad borrowers, which is likely to result in lower default rates.

Sharing positive information can result in an increase of the banks' loan portfolios (by enlarging their customer base and by lowering risk margins based on good credit histories). Positive information sharing may also reduce the risk of over-commitment by performing borrowers.

# Background\* - 2

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Disposing of more comprehensive information on their clients, banks can have a better image of the total exposure of their clients towards the banking system, which may result in an improvement of the credit risk management, a decrease in the costs with provisioning, and lower default rates.

However, the benefits can only be fully exploited if all the banks are sharing positive information. The present situation does not ensure a level playing field for the banks that share positive information and inform their lending decisions on more comprehensive disclosure by borrowers.

The reasons for not sharing positive information seem to be that banks are afraid that their clients may be “stolen” by other banks (although the information on clients can only be disclosed based on their permission); in some cases, banks observe the practices of their mother entities that do not share positive information; and there are banks that have a large market share and are able to rely on in-house information on their clients (although these ones could be as well clients of other banks). Some concerns may also arise with respect to the costs pertaining to sharing positive information (human resources, IT systems, etc.).

# Background\* - 3

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The lack of comprehensive positive information sharing also impairs the effectiveness of the application of the NBR rules on limiting the indebtedness of bank clients. Only within a widely-shared positive information environment, the risk of over-commitment by borrowers (i.e. level of indebtedness) can be effectively monitored, preventing situations in which a borrower takes credit simultaneously from several banks, without any of these being aware of the total amount of credit that the borrower has taken on. The NBR could be interested in positive information sharing to improve the monitoring of compliance with the stated norms and to ensure a level-playing field for all market players.

# Economic impact assessment - 1

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<b>A</b>	Average annual credit flow to households (2004-2005, Mln RON)	7,546
<b>B</b>	Baseline: estimated default rate (%)	2.78%
<b>C</b>	Baseline: loan approval rate (%)	40%
<b>D</b>	Scenario: estimated default rate (%):	1.84%
<b>E</b>	Scenario: loan approval rate (%)	60%
<b>F</b>	Additional new loans (Mln, RON) $[(A * E) / C] - A$	3,773
<b>G</b>	Net interest margin (%)	6.6%

# Economic impact assessment - 2

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H	Gross financial margin (Mln, RON) [F*G]	249
I	Additional Loan Loss Provisions (LLP) (Mln, RON) [D*F]	69
J	Net financial margin (Mln, RON) [H-I]	179
K	Lower LLP on overall flow (Mln, RON) [A*(D-B)]	(71)
L	<b>Overall benefits</b>	
	<b>1Y horizon: Overall benefits (Mln, RON) [J-K]</b>	<b>250</b>
	<b>5Y horizon: Present value - Overall benefits (Mln, RON)</b>	<b>1,871</b>

# Analytics - 1

Average annual credit flow to households (2004-2005, Mln RON)	a)	7,546
<u>Baseline</u> : estimated default rate (%)	b)	2.78%
<u>Baseline</u> : loan approval rate (%)	c)	40%
<u>Scenario</u> : estimated default rate (%)	d)	1.84%
<u>Scenario</u> : loan approval rate (%)	e)	60%
Additional new loans (Mln, RON)	$f)=((a*e)/c)-a$	3,773.0
Net interest margin (%)	g)	6.6%
Gross financial margin (Mln RON)	$h)=f*g$	249
Additional Loan Loss Provisions (LLP) (Mln, RON)	$i)=d*f$	69.4
Net financial margin	$j)=h-i$	179.6
Lower LLP on overall flow (Mln, RON)	$k)=(a*(d-b))$	-71
Overall annual benefits (Mln, RON)	$l)=j-k$	250.5

		2007	2008	2009	2010	2011	
Average annual credit flow to households (2004-2005, Mln RON)	1)	9,433	11,791	14,738	18,423	23,029	
Growth rate	2)	25%	25%	25%	25%	25%	
Additional new loans (Mln, RON)	$3)=((1*e)/c)-1$	4,716	5,895	7,369	9,211	11,514	
Net interest margin (%)	4)	6.6%	6.6%	6.0%	6.0%	5.5%	
Net interest margin (Mln RON)	$5)=3*4$	311	389	442	553	633	
Additional Loan Loss Provisions (LLP) (Mln, RON)	$6)=d*3$	87	108	136	169	212	
Net financial margin	$7)=5-6$	224	281	307	383	421	
Lower LLP on overall flow (Mln, RON)	$8)=(1*(d-b))$	-89	-111	-139	-173	-216	
Overall annual benefits (Mln, RON)	$9)=7-8$	313	391	445	556	638	
<b>PV - Overall benefits (Mln, RON)</b>	10)	292.4	341.3	362.3	422.9	452.7	<b>1,871.5</b>

Discount rate (%)	7.10%				
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664

# Analytics - 2

## Data and assumptions:

- a) Baseline: negative info sharing prevailing
- b) Baseline default rate (\*): 2.78%
- c) Baseline loan approval rate(\*): 40%
- d) Households credit flow considered for assessment: average 2004-2005 (Bln, RON) (\*\*): 7.5
- e) Scenario (*Lower risk, More loans*) (\*)
  - default rate: 1.84%
  - approval rate: 60%
- f) Net interest margin(\*\*\*): 6.6%

(\*)= drawn from A. Powell, N. Mylenko, M. Miller, G. Majnoni, *Improving Credit Information, Bank Regulation and Supervision: on the Role and Design of Public Credit Registries*, World Bank Policy

(\*\*)=data drawn from IMF, Romania: Selected issues and Statistical Appendix, May 2006.

(\*\*\*)= NBR, NBR, Monthly Bulletin-Statistical Section, 9/2006, p. 19





SPI Project:

**Technical and regulatory requirements for improving clearing and settlement of checks, drafts and promissory notes**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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The processing of debit instruments under the current regulatory framework is paper based. Currently, checks and other debit instruments are processed manually, while all the credit payment instruments are electronically processed. The physical exchange of the paper debit instruments takes place at the 41 local clearing houses of TransFond, which are maintained only for this purpose. The manual processing of debit instruments generates high costs for banks, which are reflected into final prices of bank products and services and implies a long settlement period. The current law does not allow the digital presentation of debit instruments.

Pending a change in the law, banks have worked, as an interim solution, on a proposal to centralise at TransFond headquarters, the physical exchange of paper-debit instruments by the banks head offices with a parallel electronic transmission of the data drawn from debit instruments.

Many in the banking industry feel that a permanent solution has to be found in order to address this issue, but different views exist among market participants as to what that “ultimate solution” should be.

One idea raised in the banking community is to eliminate checks. In order to implement such a solution, at least the following aspects have to be clarified: implementation period, the check users’ opinion, the impact of such a measure, needed regulatory actions and alternative instruments.

# Background\* - 2

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Until now, no task force gathering all stakeholders' representatives has addressed the issue in order to facilitate the finding of a commonly accepted solution. The polarity of the checks market (where some banks make extensive use of checks while others do not use checks that frequently) and the relatively reduced number of processed checks prevents the banks from reaching a commonly agreed solution, making unlikely the elimination of checks in the short term.

NBR is currently working on two parallel initiatives:

- a) an interim solution – facilitated by an NBR norm regulating the RBA proposed interim solution;
- b) a permanent solution – the amendment of the relevant laws in order to allow the electronic processing of debit instruments.

where you could have only paper less instruments

The interim solution is meant to address the concerns that the enactment of the permanent solution will take too long.

shorten the time span from interim to permanent

# Economic impact assessment - 1

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## i – Banking industry

A	Number of banks	38
B	Savings in staff/bank as a result of the Electronic processing (#)	42
C	Gross annual wage/bank employee (RON)	59,840
D	Number of paper-based transactions in 2005 (#)	7,660,674
E	Commissions charged by TransFond on each manually processed transaction (RON)	2.2
F	Estimate of commissions charged by TransFond on each electronically processed transaction (RON)	1

# Economic impact assessment - 2

## i – Banking industry

**G** IT one-off investments per bank (RON) 288,000

**H** Overall business-related staff savings

1-year horizon: (MIn, RON) <sup>(1)</sup> 85

5-year horizon: present value, (MIn, RON) <sup>(1)</sup> 380

**H** Overall savings in TransFond commissions

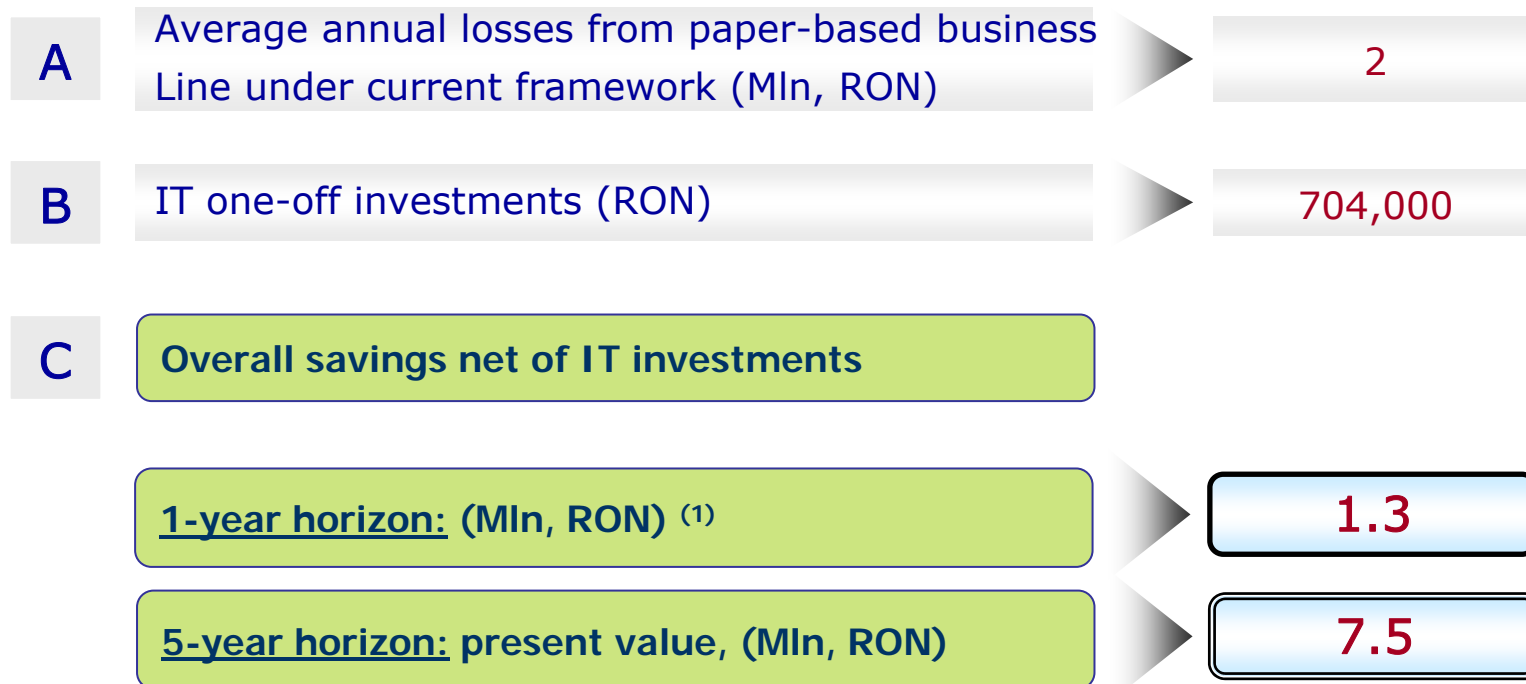
1-year horizon: (MIn, RON) 9

5-year horizon: present value, (MIn, RON) 38

(1)= Net of IT one-off investments

# Economic impact assessment - 3

## i – Transfond



(1)= Net of IT one-off investments

# Analytics - 1

<b>Banking industry</b>	Number of banks	a)	38
	Savings in staff/bank as a result of the electronic processing	b)	42
	Gross annual wage/bank employee (RON)	c)	59,840
	Number of paper-based transactions in 2005 (#)	d)	7,660,674
	Commissions charged by TransFond on each manually processed transaction (RON)	e)	2.2
	Estimate of commissions charged by TransFond on each electronically processed transaction (RON)	f)	1
	IT one-off investments per bank (RON)	g)	288,000
	Overall IT one-off investments borne by banks (Mln, RON)		11
	Overall business-related staff savings (Mln, RON)	h)	96
Overall savings from Transfond commissions (Mln, RON)	i)=g*h	9	
<b>Transfond</b>	Transfond: Annual losses from paper-based business line under current framework (Mln, RON)	l)	2
	Transfond:T one-off investments (RON)	j)	0.70

		2007	2008	2009	2010	2011	5 years
<b>Banking industry</b>	<b>PV - Overall business-related staff savings (Mln, Eur) (Mln, RON)<sup>(1)</sup></b>	78.2	83.3	77.7	72.6	67.8	<b>380</b>
	<b>Overall savings from Transfond commissions (Mln, RON)</b>	8.6	8.0	7.5	7.0	6.5	<b>38</b>
<b>Transfond</b>	<b>PV - Annual savings due to the shift from paper based to electronic system (Mln, RON)<sup>(1)</sup></b>	1.21	1.74	1.63	1.52	1.42	<b>7.5</b>

(1)=Net of IT one-off investments

Discount rate (%)	7.10%					
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664	







SPI Project:

**Anti Money Laundering Law (AML)**

**Regulatory Impact Assessment  
Approach Note**

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# Background\* - 1

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Bank anti-money laundering responsibilities are regulated by Law no. 656/2002. The law was amended in 2005 (Law no. 230/2005), when RBA tried unsuccessfully to have some of proposals incorporated.

The RBA proposals were meant to improve the efficiency of the AML mechanism in harmonization with the provisions of the EU Third Directive.

The main RBA proposals referred to:

- Better definition of the “linked operations”: by not explaining the meaning of this term, there is room for controversies and interpretations;
- Reporting frequency: currently, the daily reporting to the AML Office is considered by banks too frequent;
- Content of AML Office reporting: currently, the level of detail is considered by banks too high;
- Threshold for AML Office reporting: currently, the threshold is set to EUR 10,000, which is considered by banks too low compared to the EU Directive reporting threshold set at EUR 15,000;

# Background\* - 2

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- Exclusion of some transactions from reporting: cash transactions between banks and between banks and NBR (40% of the total reported transactions) are subject to daily reporting, although the risk for suspicious transactions is low;
- Long period to receive the AML Office decision (3 working days) and the courts decision (4 working days) in order to block the execution of a suspicious transaction: these delays generate an operational risk for banks and may lead to situations in which the banks can be sued by their clients for non-executions of their operations;
- AML Office's feed-back: the AML Office obligation to offer a feed-back on the suspicious transactions reported by the banks is not clear in the law;
- Amount of penalties: the penalties are expressed in lei, not in RON and can lead to misinterpretation.

The above mentioned issues generate high costs for banks and hamper good co-operation with the AML Office. The RBA intends to promote law amendments so that the above mentioned issues are resolved.

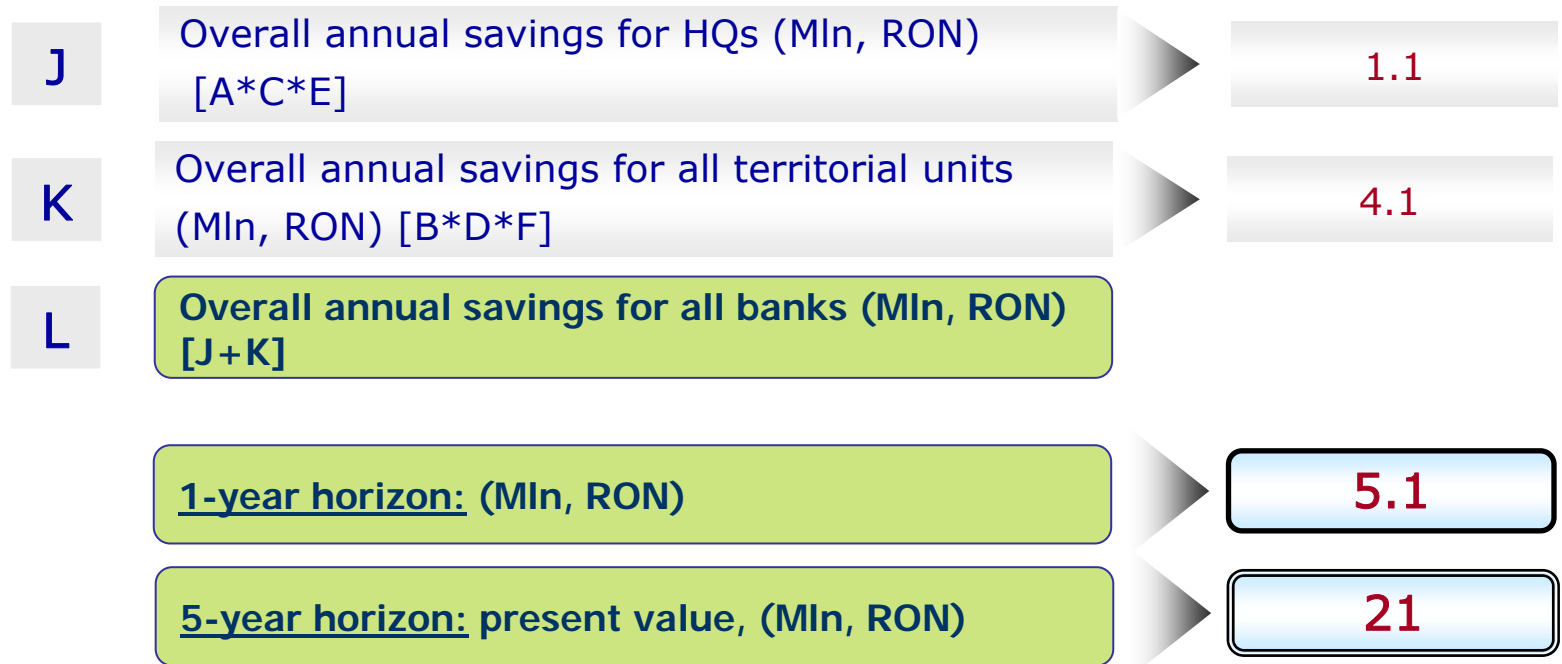
# Economic impact assessment - 1

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<b>A</b>	Number of banks	▶	38
<b>B</b>	Number of branches	▶	3,845
<b>C</b>	AML-related annual costs borne by HQ under baseline (RON)	▶	112,640
<b>D</b>	Average AML-related annual costs borne by each branch under baseline (RON)	▶	2,640
<b>E</b>	Average savings in HQ under scenario (%)	▶	25%
<b>F</b>	Average savings in each branch under scenario (%)	▶	40%

# Economic impact assessment - 2

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# Analytics - 1

Number of banks	a)	38
Number of branches	b)	3,845
Annual AML-related costs borne by HQ under baseline (RON)	c)	142,743
Average annual AML-related costs borne by each branch under baseline (RON)	d)	6,342
Savings (as FTE) in HQ under scenario (%) (*)	e)	36%
Savings (as FTE) in each branch under scenario (%) (*)	f)	59%
Average annual cost borne by each HQ under baseline (RON) (**)	g)	112,640
Average annual cost borne by each branch under baseline (RON) (**)	h)	2,640
Savings (as FTE) in HQ under scenario (%) (**)	i)	25%
% savings (as FTE) in each branch under scenario (**)	j)	40%
Overall annual savings for HQs (Mln, RON)	k)=a*g*i	1.1
Overall annual savings for branches (Mln, RON)	l)=b*h*j	4.1
Total annual savings (Mln, RON)	m)=k+l	5.1
Present value (over 5 years) (Mln, RON)	n)	21

(\*)=Source: Roland Berger Study. It makes reference to a bank with HQ and 307 branches

(\*\*)= Convergence estimate

# Analytics - 2

## Data and assumptions:

### a) Baseline:

Compliance for bank reporting takes place as follows:

- i) on a daily basis
- ii) cash transactions and external transfers
- iii) over EUR 10,000
- iv) reporting system consists in
  - 56 columns for external transfers
  - 35 columns for cash transactions

Source: Roland Berger, *The impact of external regulation on the Romanian banking system.*

### b) Scenario:

Compliance for bank reporting takes place as follows:

- i) on a weekly basis
- ii) over EUR 15,000
- iv) reporting system consists in
  - 20 columns for external transfers
  - 15 columns for cash transactions

Source: Roland Berger, *The impact of external regulation on the Romanian banking system.*

c1) Annual cost borne by HQ under baseline (Roland Berger sample)

EUR	40,552
RON	142,743

Source: Roland Berger, *The impact of external regulation on the Romanian banking system.*

c2) Annual cost borne by HQ under baseline (all banks)

EUR	32,000
RON	112,640

d1) Average annual cost borne by each branch under baseline (RB sample)

EUR	1,802
RON	6,342

Source: Roland Berger, *The impact of external regulation on the Romanian banking system.*

d2) Average annual cost borne by each branch under baseline (all banks)

EUR	750
RON	2,640

e) Savings gained by Roland Berger sample under scenario (%)

- i) HQ: 36%
- ii) Average of each territorial unit 59%

Source: Roland Berger, *The impact of external regulation on the Romanian banking system.*

f) Savings gained by all banks under scenario (%)

- i) HQ: 25%
- ii) Average of each territorial unit 40%



SPI Project:

**Rural Lending**

# Regulatory Impact Assessment Approach Note

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# Background\* - 1

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In Romania, agricultural lending represents a modest share of total bank loans, estimated in July 2004 at a mere 2.6% of the total bank loans above EUR 5,000 that were extended. The high transaction costs and risks are the main factors that affect the supply of credit in rural areas. One of the drawbacks perceived by banks in rural financing is lack of clarity of the legislation regulating the use of the ownership title (warrants-deposit certificates) for agricultural products.

Initially regulated by a law from 1937, the regime of warrants - deposit certificates for crop inventories was further clarified between 2000 and 2003 in six legislative acts (Government Emergency Ordinance no. 56/2000 approved and modified by Law no. 39/2001; Government Emergency Ordinance no. 109/2000 approved by Law no. 657/2001; and Government Emergency Ordinance no. 141/2002 approved by Law no. 39/2003) and some additional methodological norms.

The main provisions of the regulatory framework are:

- the deposit certificates for crop inventories represent bearer negotiable titles, issued by depositaries in exchange of crop inventories deposited in the warehouses;
- in order to issue deposit certificates, the depositaries have to be inspected and licensed by the Ministry of Agriculture, Forests and Rural Development or an authorized inspector, based on a verification of the depositary's compliance with the requirements for storing crop inventories;

# Background\* - 2

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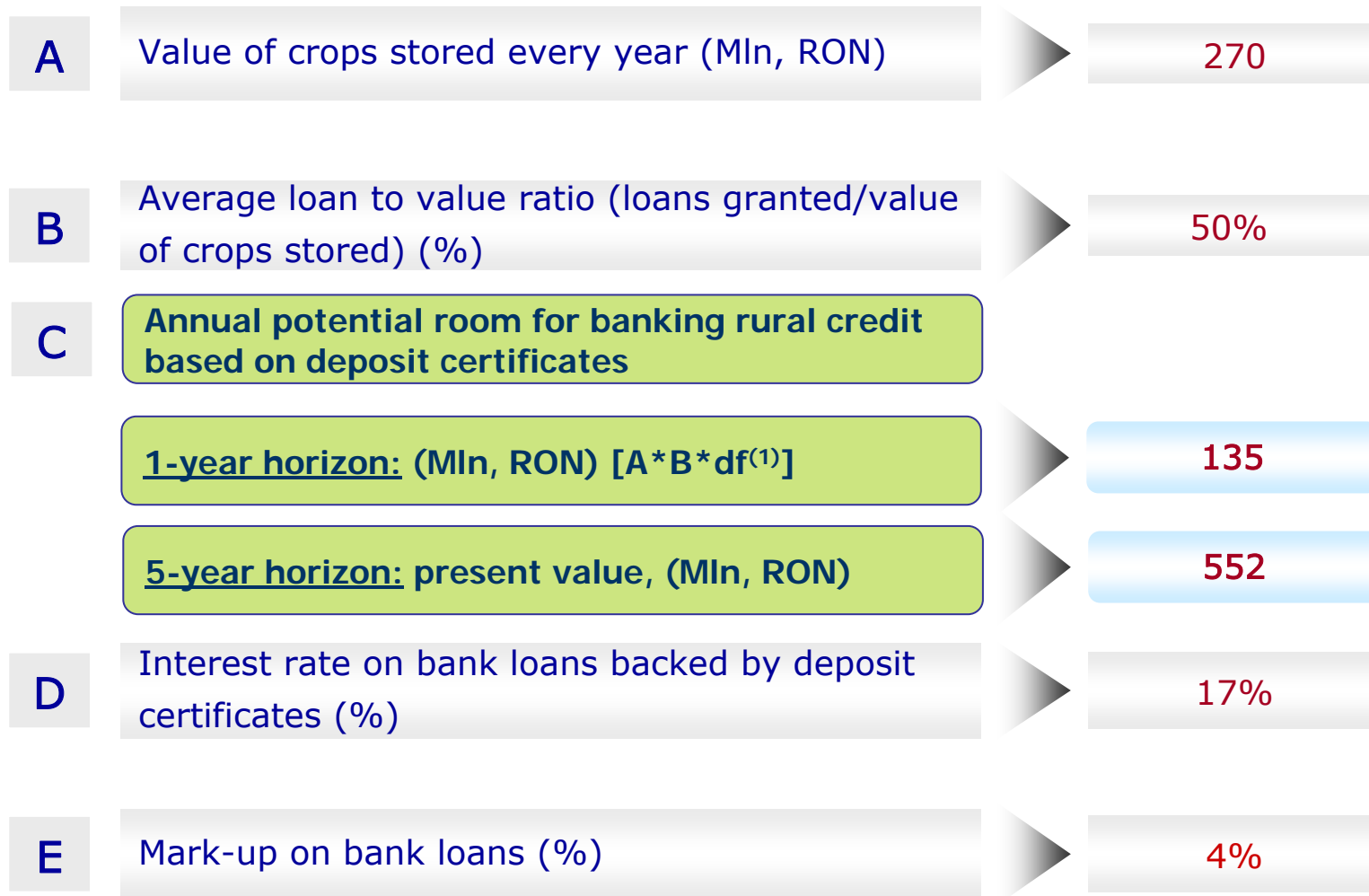
- the Deposit Certificates Guarantee Fund (DCGF) is established as a public institution, in order to guarantee the reimbursement of the crop inventories value as stated in the deposit certificates. The depositaries that have been licensed have to open a deposit in the account of the DCGF in an amount representing 0.5% of the market value of the stored crop inventories for which have been issued deposit certificates. The organization and functioning of the DCGF are established by its by-law, approved by the Government following a proposal of the Ministry of Agriculture, Forests and Rural Development.

So far, the implementation of the regulatory framework yielded poor results. DCGF has only been established on paper and no deposit certificates for crop inventories have been issued. Also, according to some authorized sources, only one depositary has been licensed to issue deposit certificates.

According to other countries' experience, lending against warrants-deposit certificates on cereals has the potential to increase commercial banks' lending to agriculture, by reducing the credit risk, lowering transaction costs, and improving loan recovery.

The value of cereals that are warehoused in one year (about EUR 900 million) can give an indication of the potential of rural lending based on warrants – deposit certificates.

# Economic impact assessment - 1



# Economic impact assessment - 2

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F

Interest rate charged on bank loans backed by deposit certificates

1-year horizon: (Mln, RON) [ $A*B*df^{(1)}$ ]

23

5-year horizon: present value (Mln, RON)

94

G

Mark-up on bank loans

1-year horizon: (Mln, RON) [ $A*B*df^{(1)}$ ]

5

5-year horizon: present value (Mln, RON)

22

# Analytics - 1

value of cereals that are warehoused in 1 year (*) (Mln, RON)	a)	270
Average loan to value ratio (loans granted/value of deposit certificates) (%) (**)	b)	0.5
Potential room for annual banking rural credit based on deposit certificates (Mln, RON)	c )=a*b	<b>135.0</b>
Interest rate charged on bank loans backed by deposit certificates (%)	d)	17.00%
Interest rate charged on bank loans backed by deposit certificates (Mln, RON)	e)=c*d	<b>22.95</b>
Mark-up on bank loans (%)	f)	4%
Annual mark-up stemming from potential larger banking rural credit (Mln, RON)	g)=e*f	<b>5.4</b>

		2007	2008	2009	2010	2011	
Potential room for annual banking rural credit based on deposit certificates (Mln, RON)	1)	135	135	135	135	135	
Interest rate charged on bank loans backed by deposit certificates (%)	2)	23	23	23	23	23	
Mark-up on bank loans (%)	3)	4.0%	4.0%	4.0%	4.0%	4.0%	
<b>PV - Potential rural banking lending (Mln, RON)</b>		126.1	117.7	109.9	102.6	95.8	<b>552.0</b>
<b>PV - Potential interest rate on rural lending (Mln, RON)</b>		21.4	20.0	18.7	17.4	16.3	<b>93.8</b>
<b>PV - Potential mark up from rural lending (Mln, RON)</b>		5.0	4.7	4.4	4.1	3.8	<b>22.1</b>
							5-years

Discount rate (%)	7.10%				
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664

# Analytics - 2

## **Data and assumptions:**

a) Baseline

Consolidated Financial Performances of rural enterprises working in the Agricultural sector in 1997(\*) (Mln, RON)

Fixed assets	593.6	513.7	Equity
Current assets	276.0	1.8	Provisions and others
Other assets	25.8	378.8	Liabilities
		<i>of which</i>	<i>314.4 bank loans</i>
		1.1	Other liabilities
Total assets	895.4	895.4	Total liabilities & equity

b) Average length of bank loans backed by deposit certificates: 1 year

c) Lending rate: 17%

d) Mark up of a bank loan: 4%

e) Estimate of the value of crops stored every year:

- i) Number of crop farms( 7,700
- ii) Average size of a crop farm (hectares)(\*\*) 270
- iii) Value of agricultural output per ha (Eur)(\*\*) 248
- iv) Percentage of the the total value stored (%) 20%
- v) Total value of crops stored every year (Mln, EUR)
  - (Mln, EUR) **103**
  - (Mln, RON) **363**
  - Conservative assumption (Mln, RON) **270**

(\*)= The World Bank, *Financial Markets, credit constraints and investment in Rural Romania*, April 2001.

(\*\*)=FAO-IBRD, *Romania: bank lending to SMEs in rural area*



SPI Project:

**Law on bank guarantees**

**Regulatory Impact Assessment  
Approach Note**

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# Background\* - 1

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Bank guarantees play an important role in commercial contracts due to their capacity to secure performance in an environment where partners with different backgrounds are called upon to do business together. In general, countries have specific bank guarantees laws or ratify relevant international conventions (see below) that clearly define the rights and obligations of the parties involved and balance the interests of the beneficiary against the need to protect the principal against unfair claims.

In Romania, there is no specific law on bank guarantees. The disparate and incomplete legal provisions (from the Civil and Commercial Code, Law no. 99/1999) that have some relevance in addressing the issues pertaining to bank guarantees leave unclear numerous aspects, among which the most important are:

- the delimitation between the principal obligation resulting from the commercial contract and the obligation resulting from the bank guarantee;
- the extent to which the bank issuing the guarantee is bounded to pay the beneficiary based on his simple written request;
- the extent to which the issuing bank can invoke the exceptions stipulated in the principal contract;
- the extent to which the bank issuing the guarantee has the right to revert against the principal for recovering the guarantee amount and any other costs paid and not honored by the principal.



# Background\* - 2

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In international trade, bank guarantees are governed almost exclusively by the law of the country of the bank which issues the guarantee to the beneficiary. Likewise, the International Chamber of Commerce (ICC) issued in 1992 a set of “Uniform Rules for Demand Guarantees” (ICC Publication no. 458) that have achieved a broad international recognition.

In issuing letters of guarantee, Romanian banks make reference either to the Romanian law or to the regulations from the parent entity’s country. This practice may result in unfavourable decisions to Romanian banks due to the incompleteness of the Romanian legislation on the matter and to the limited knowledge of Romanian courts of international rules.

In order to help overcome the drawbacks in enforcing the bank guarantee contracts, an RBA group has put together the principal terms of a proposed guarantees law.

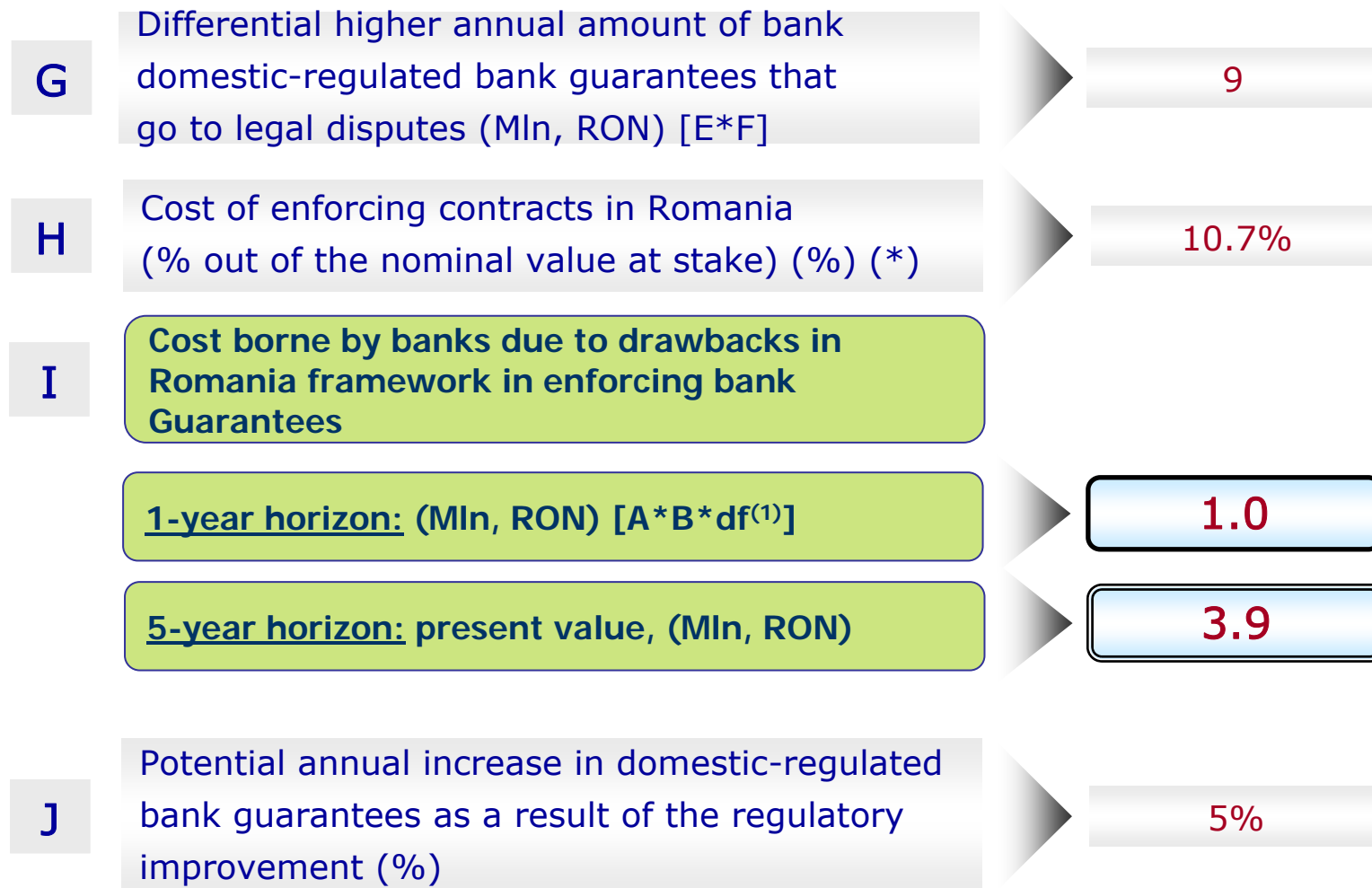
# Economic impact assessment - 1

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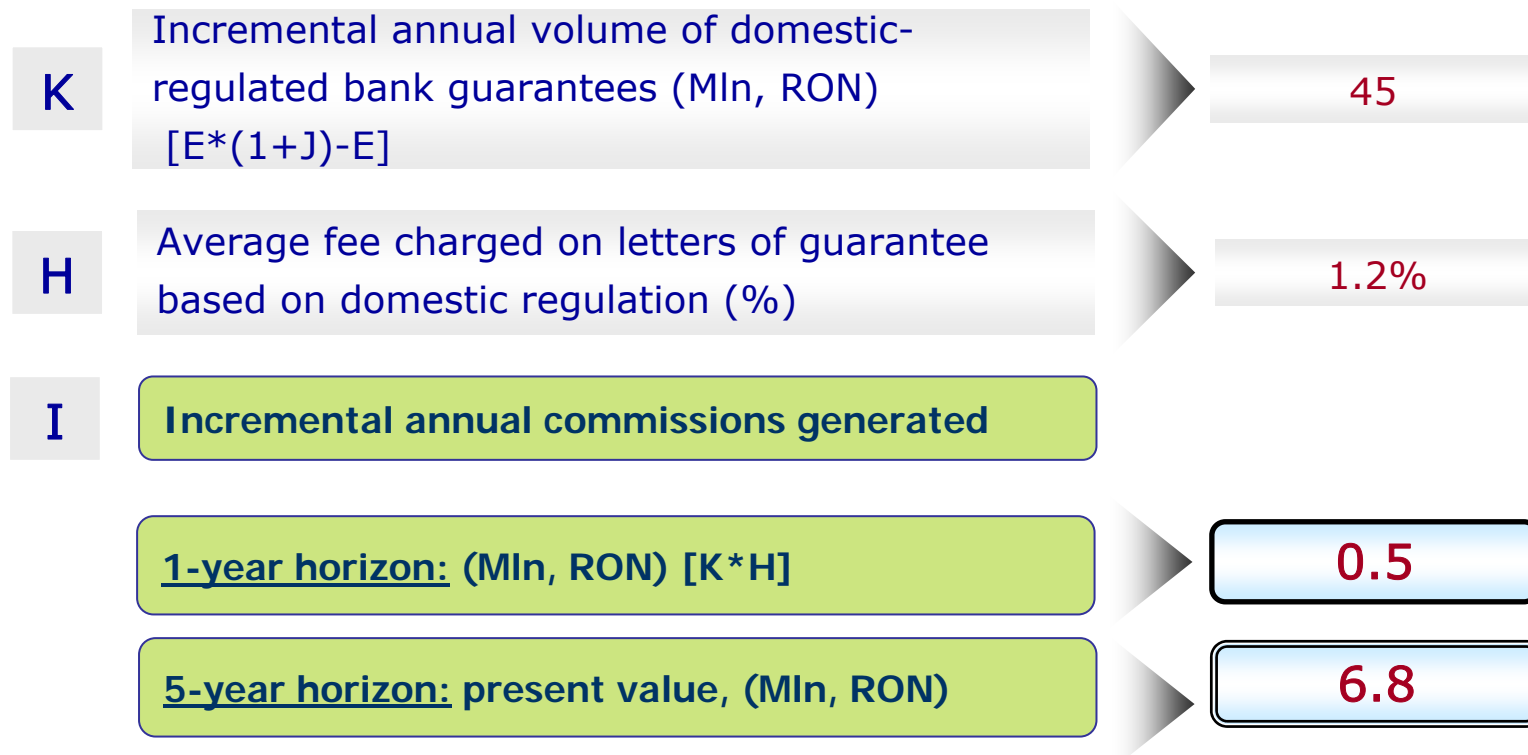
<b>A</b>	Banks' commitments to a natural entity or non-bank, legal entity (Mln, RON) (*)	12,887
<b>B</b>	Weight of bank letters of guarantee (%)	20%
<b>C</b>	Amount of bank letters of guarantees (Mln, RON) [A*B]	2,577
<b>D</b>	Domestic-regulated bank guarantees (%)	35%
<b>E</b>	Amount of bank letters of guarantees regulated by the Romanian law (Mln, RON) [C*D]	902
<b>F</b>	Higher rate of litigation for domestic-regulated contracts vs foreign-regulated ones (%)	1%

(\*)= Source: NBR, *Monthly Bulletin - Statistical Section*, 9/2006, p. 52

# Economic impact assessment - 2



# Economic impact assessment - 3



# Analytics - 1

		1	2	3	4	5	
		2007	2008	2009	2010	2011	
Annual cost borne by banks due to drawbacks in Romania framework in enforcing bank guarantees	i)	1.0	1.0	1.0	1.0	1.0	
Potential annual increase in domestic-regulated bank guarantees as a result of the regulatory improvement (%)	ii)	5%	5%	5%	5%	5%	
Gross annual volume (MIn, RON)	iii)=d*(1+ii)	947	995	1,044	1,096	1,151	
Incremental annual volume (MIn, RON)	iv)=iii-d	45	92	142	194	249	
Average fee charged on letters of guarantee based on domestic regulation (%)	v)	1.2%	1.2%	1.2%	1.2%	1.2%	
Incremental annual commissions generated (MIn, RON)	vi)-iv*v	0.5	1.1	1.7	2.3	3.0	
<b>PV - Annual cost borne by banks due to drawbacks in Romania framework in enforcing bank guarantees (MIn, RON)</b>		0.9	0.8	0.8	0.7	0.7	<b>3.9</b>
<b>PV - Incremental annual commissions generated (MIn, RON)</b>		0.5	1.0	1.4	1.8	2.1	<b>6.8</b>

5-years

Discount rate (%)	7.10%				
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664

# Analytics - 2

## Data and assumptions:

a) Incidence of bank letters of guarantee out of Banks' commitments to a natural entity or non-bank, legal entity <i>(Based on the evidence from Annual reports of a sample of Romanian Banks)</i>	20%
b) Guarantees that make reference to Romanian law (%)	35%
c) Higher rate of litigation for domestic-based contracts vs foreign-based ones	1%
d) Potential annual increase in domestic-regulated bank guarantees as a result of the regulatory improvement (other things being equal, e.g. foreign-regulated bank guarantees)	5%
e) Average fee charged on letters of guarantee based on domestic regulation (%) <i>(Based on the evidence from some Romanian Banks contracts)</i>	1.2%



SPI Project:  
**Loan Loss Provisioning in view of IFRS  
application**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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Currently, most of the Romanian banks calculate provisions both according to NBR Regulation no. 5/2002 and to IFRS, for reporting to their mother entities.

Under Regulation no. 5/2002, provisions are calculated at individual level, for exposures classified in 5 categories (upon debt service, financial standing and legal status criteria), after deducting the collateral, and by applying the corresponding provisioning ratios. The exposures classified as loss are 100% provisioned and registered off balance sheet.

Under IFRS provisions are calculated both at individual and at portfolio level (based on loss and recovery historical rates), using a 10 categories classification, based on additional criteria such as commercial and ownership status. The exposures classified as “loss” are kept in the balance and not provisioned 100% (recognizing thus the collateral quality). The provisions are actually calculated as the net present value of future recoveries, discounted at the original effective interest rates on the loans.

Banks generally appreciated that provisions calculated under IFRS at portfolio level were higher than the ones calculated according to NBR regulation, although in some cases NBR methodology results in higher provisions(\*\*).

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\*= Drawn from the Project Working Group ToR

\*\*= According to Roland Berger study developed for RZB Romania, BRD – GSG and Bancpost.



# Background\* - 2

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The loan loss provisions are considered deductible for the calculation of the profit before taxation only up to the limits given by the NBR regulation.

In case the provisions are over passing the limits fiscally recognized, there is a temporary deductible difference for which a deferred tax asset is to be recognized only under IAS 12 conditions.

The double calculation and reporting results in increased reporting and compliance costs and the unclear fiscal treatment of the provisions calculated under IFRS determines a high level of operational risk.

This duplication will continue after Basel II implementation and the tax problems will persist unless the related regulations change in order to align economic, prudential, and tax treatment of credit risk.

## **II - Project Objective**

Prepare a summary document on a feasible update of NBR prudential standards to reflect new accounting standards that would meet both business reality and supervisory objectives.

# Economic impact assessment - 1

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## i – General section

<b>A</b>	Banks with majority foreign capital (#)	24
<b>B</b>	Net assets 2005 of an intermediate bank of Roland Berger sample (RON, Mln)	11,000
<b>C</b>	Net assets in 2005 of banks with majority foreign capital (RON, Mln) (**)	70,092
<b>D</b>	Weight of the average RB bank out of overall bank affected (%) [B/C]	16%

# Economic impact assessment - 2

## ii – Compliance section

**E**

Full time Equivalent needed over a year by a RB-sample bank to comply with RAS, under current framework (# FTE)

6.3

**F**

Full time Equivalent needed over a year by a RB-sample bank to comply with IFRS, under current Framework (# FTE) (\*)

1.4

**G**

Average annual gross salary of a bank staff (RON)

59,840

**H**

Correction factor to shift from 3-bank sample to all banks involved (%)

-15%

**I**

FTE needed over a year by each bank to comply with RAS, under current framework (# FTE)  
[E+(E\*H)]

5.4

**J**

FTE needed over a year by each bank to comply with IFRS, under current framework (# FTE)  
[F+(F\*H)]

1.2

# Economic impact assessment - 3

## ii – Compliance section

K

FTE needed over a year by each bank to comply with RAS and IFRS, under current framework (# FTE) [I+J]

6.5

L

Current regulation: Overall annual costs borne by all international banks to comply with RAS and IFRS (Mln, EUR) [A\*G\*K]

9.4

M

Reduction of overall FTE to comply with RAS and IFRS due to improvement of regulation

30%

N

Overall annual costs saved by all international banks to comply with RAS and IFRS [L\*M]

1-year horizon: (Mln, RON)

2.2

5-year horizon: present value, (Mln, RON)

11.5

# Economic impact assessment - 4

## iii – Tax section

O	Average annual net provision expenses/bank Under RAS (MIn, RON)	62.3
P	Average annual net provision expenses/bank Under IFRS (MIn, RON)	68.6
Q	<u>Banking industry</u> : Overall annual net provision expenses under RAS (MIn, RON) [O/D]	397.0
R	<u>Banking industry</u> : Overall annual net provision expenses under IFRS (MIn, RON) [O/D]	437.0
T	Annual accounting edge (MIn, EUR) [R-Q]	
	<u>1-year horizon</u> : (MIn, RON)	40
	<u>5-year horizon</u> : present value, (MIn, RON)	165

# Analytics - 1

Banks with majority foreign capital (#)	a)	24
Net assets 2005 of an intermediate bank of Roland Berger sample (Mln, RON)	b)	11,000
Net assets in 2005 of banks with majority foreign capital (RON, Mln)	c)	70,092
Net assets of a Roland Berger benchmark bank vs Banks with majority foreign capital (%)	d)=b/c	16%

### Compliance perspective

FTE over a year needed by a bank to comply with RAS, under current framework	e)	6.3
FTE over a year needed by a bank to comply with IFRS, under current framework	f)	1.4
Average annual gross salary of a bank staff	g)	59,840
Factor of correction to shift from 3-banks sample to all banks involved (%) (***)	h)	-15%
FTE over a year needed by a bank to comply with RAS, under current framework (# FTE)	i)=e+(e*h)	5.4
FTE over a year needed by a bank to comply with IFRS, under current framework (# FTE)	j)=f+(f*h)	1.2
FTE over a year needed by a bank to comply with RAS and IFRS, under current framework (# FTE)	k)=i+j	6.5
<u>Current regulation</u> : overall annual costs borne by all international banks to comply with RAS and IFRS (Mln, RON)	l)=a*g*k	<b>9.4</b>
Reduction of overall FTE to comply with RAS and IFRS due to improvement of regulation	m)	30%
<u>Scenario</u> : overall annual costs saved by all international banks to comply with RAS and IFRS (Mln, RON)	n)=l*m	<b>2.82</b>

### Tax perspective

Average annual net provision expenses/bank under RAS (Mln, RON)	o)	62.3
Average annual net provision expenses/bank under IFRS (Mln, RON)	p)	68.6
<u>Banking industry</u> : overall annual net provision expenses under RAS (Mln, RON)	q)=o/d	397.0
<u>Banking industry</u> : overall annual net provision expenses under IFRS (Mln, RON)	r)=p/d	437.4
Annual accounting edge (Mln, RON)	s)=r-q	<b>40.4</b>

	2007	2008	2009	2010	2011	5 years
<b>PV - Scenario: overall annual costs saved by all international banks to comply with RAS and IFRS</b>	2.6	2.5	2.3	2.1	2.0	<b>11.5</b>
<b>PV - Annual accounting edge (Mln, RON)</b>	37.7	35.2	32.9	30.7	28.7	<b>165.1</b>

Discount rate (%)	7.10%
Discount factor	0.93371 0.87181 0.81401 0.76005 0.70966

# Analytics - 2

## Data and assumptions:

a) Banks with majority foreign capital (#)	24
<i>Source: NBR, Annual Report 2005, p. 35</i>	
b) Net assets 2005 of an intermediate bank of Roland Berger sample (Mln, RON)	11,000
<i>(Based on Annual reports of the banks belonging to the Roland Berger sample)</i>	
c) Net assets in 2005 of banks with majority foreign capital (RON, Mln)	70,092
<i>Source: NBR, Annual Report 2005, p. 35</i>	
<i>Compliance perspective</i>	
d) FTE over a year needed by a bank to comply with RAS, under current framework	6.3
<i>Source: Roland Berger Study. It makes reference to a bank with HQ and 307 branches</i>	
e) FTE over a year needed by a bank to comply with IFRS, under current framework(*)	1.4
<i>Source: Roland Berger Study. It makes reference to a bank with HQ and 307 branches</i>	
f) Average annual gross salary of a bank staff	
<i>Source: Roland Berger.</i>	EUR 17,000 RON 59,840
g) Factor of correction to shift from 3-banks sample to all banks involved (%)	-15%
h) Reduction of overall FTE to comply with RAS and IFRS due to improvement of regulation (%)	30%
<i>Tax perspective</i>	
i) Average annual net provision expenses/bank under RAS	
<i>Source: Roland Berger Study. It makes reference to a bank with HQ and 307 branches</i>	
	Mln, EUR 17.7
	Mln, RON 62.3
j) Average annual net provision expenses/bank under IFRS	
<i>Source: Roland Berger Study. It makes reference to a bank with HQ and 307 branches</i>	
	Mln, EUR 19.5
	Mln, RON 68.6



SPI Project:

**Mortgage Loans Database**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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Basel II Capital Accord provides that loans fully secured by mortgages on residential property that is or will be occupied by the borrower, or that is rented, can be risk weighted at 35% (instead of 50%).

In order to apply the 35% risk weight to loans for residential purposes, the supervisory authorities should satisfy themselves, according to their national arrangements for the provision of housing finance, that this concessionary weight is applied restrictively for residential purposes and in accordance with strict prudential criteria, also based on the default experience for these types of exposure.

In parallel, Basel II provides that, in exceptional circumstances for *well-developed and long-established markets*, the mortgages on office and/or multi-purpose commercial premises and/or multi-tenanted commercial premises may have the potential to receive a preferential risk weight of 50% (instead of 100%) for the part of the loan that doesn't exceed the lower of 50% of the market value or 60% of the mortgage lending value of the property securing the loan.

# Background\* - 2

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In order to apply this risk weight, two conditions have to be fulfilled: i) losses stemming from commercial real estate lending up to the lower of 50% of the market value or 60% of loan-to-value based on mortgage-lending-value must not exceed 0,3% of the outstanding loans in any given year; ii) overall losses stemming from commercial real estate lending must not exceed 0,5% in any given year.

The application of this more favorable regime for the loans secured by mortgages would decrease the minimum capital requirements and, consequently, lending costs. In order to benefit of the New Accord on Capital provisions, the banking system should create and maintain an industry database that allows the calculation of the following ratios: default rate and recovery rates for loans secured by mortgages on residential real estate and, if endorsed by the National Bank of Romania, also on commercial real estate whose guarantee value is up to 50% of the market value respectively. The database should gather also information on the real estate market (market values of real estate properties).

# Economic impact assessment - 1

## i - Section on residential real estate

<b>A</b>	Outstanding real-estate/mortgage loans to households (Mln, RON)	7,197
<b>B</b>	Estimate of the % of item A that will benefit from this risk weighted reduction (**)	40%
<b>C</b>	Risk weight reduction (from 50% to 35%)	15%
<b>D</b>	Capital requirement (%)	12%
<b>E</b>	Free capital [A*B*C*D]	
	<u>1-year horizon:</u> (Mln, RON)	52
	<u>5-year horizon:</u> present value, (Mln, RON)	212

# Economic impact assessment - 2

## ii - Section on commercial real estate

F	Current medium- and long-term loans (Mln, RON)	27,934
G	Weight of loans backed by commercial property (%)	20%
H	Outstanding loans fully secured by mortgages on commercial property (Mln, RON) [F*G]	5,587
I	Estimate of the % of item H that will benefit from this risk weighted reduction (**)	20%
J	Risk weight reduction (from 100% to 50%)	50%
K	Free capital [A*B*C*D]	
	<u>1-year horizon:</u> (Mln, RON)	67
	<u>5-year horizon:</u> present value, (Mln, RON)	274

# Economic impact assessment - 3

## iii - Section on market development

L	Average pricing of a residential mortgage loan (%)	14.4%
M	Average pricing of a commercial mortgage loan (%)	12.6%
N	Reduction of residential mortgage loan pricing as a result of less capital absorbed (%)	0.18%
O	Reduction of commercial mortgage loan pricing as a result of less capital absorbed (%)	0.6%
P	Estimated interest elasticity of the demand for mortgage loans (%)	(0.3)
Q	Estimated interest elasticity(*) of the demand for mortgage loans (%)	(0.3)
R	Potential increase of demand for residential mortgage loans (Mln, RON)	10.8
S	Potential increase of demand for commercial mortgage loans (Mln, RON)	79.8

# Analytics - 1

Residential	Outstanding loans fully secured by mortgages on residential property (Mln, RON)	a)	7,197
	Estimate of the % of item A that will benefit from this risk weighted reduction	b)	40%
	Risk weight reduction (from 50% to 35%)	c)	15%
	Capital requirement (%)	d)	12%
	Outstanding free capital [Mln, RON]	e)=a*b*c*d	<b>52</b>
Commercial	Current medium- and long-term loans (Mln, RON)	f)	27,934
	Weight of loans backed by commercial property (%)	g)	20%
	Outstanding loans fully secured by mortgages on commercial property (Mln, RON)	h)=f*g	5,587
	Estimate of the % of item H that will benefit from this risk weighted reduction (%)	i)	20%
	Risk weight reduction (from 100% to 50%) free capital [Mln, RON]	j)	50%
		k)=d*h*i*j	<b>67.0</b>
Market development	Average pricing of a residential mortgage loan (%)	l)	14.4%
	Average pricing of a commercial mortgage loan (%)	g)	12.6%
	Estimated interest elasticity(*) of the demand for mortgage loans (%)	h)	(0.3)
	Increase in demand for residential mortgage loans (Mln, RON)	i)	<b>10.8</b>
	Increase in demand for commercial mortgage loans (Mln, RON)	j)	<b>79.8</b>

		2007	2008	2009	2010	2011	5-year NPV
<b>PV - Capital freed due to residential backed mortgages (Mln, RON)</b>	i)	48.4	45.2	42.2	39.4	36.8	<b>211.9</b>
<b>PV - Capital freed due to commercial backed mortgages (Mln, RON)</b>	ii)	62.6	58.4	54.6	51.0	47.6	<b>274.1</b>

Discount rate (%)	7.10%
Discount factor	0.933707 0.871808 0.814013 0.76005 0.709664

# Analytics - 2

## Data and assumptions:

- a) Real-estate/mortgage loans to households (Mln, RON) 7,197  
Source: NBR, *Financial Behaviour of Households and Companies*, September 2006
- b) Residential mortgage lending: Real-estate/mortgage loans to households are considered 100% residential property
- c) Estimate of the % of loans fully secured by mortgages on residential property that will benefit from this risk weighted reduction 40%
- d) Commercial mortgage lending: calculations of this item are based on
- i) Current medium- and long-term loans(Mln, RON) 27,934
  - ii) Weight of loans backed by commercial property (%) 20%
- e) Estimate of the % of loans fully secured by mortgages on commercial property that will benefit from this risk weighted reduction 20%
- f) Average pricing of a residential mortgage loan (%) 14.4%  
Source: NBR, *Monthly Bulletin-Statistical Section, 9/2006, p. 19*
- g) Average pricing of a commercial mortgage loan (%) 12.6%  
Source: NBR, *Monthly Bulletin-Statistical Section, 9/2006, p. 19*
- h) Reduction of residential mortgage loan pricing as a result of less capital absorbed. It is calculated as follows:
- i) loan=100
  - ii) differential risk weight=15%
  - iii) capital adequacy ratio=12%
  - iv) cost of equity=10%
  - v) cost of equity as pricing component= **0.18%**
- i) Reduction of commercial mortgage loan pricing as a result of less capital absorbed. It is calculated as follows:
- i) loan=100
  - ii) differential risk weight=50%
  - iii) capital adequacy ratio=12%
  - iv) cost of equity=10%
  - v) cost of equity as pricing component= **0.6%**
- j) Estimated interest elasticity(\*) of the demand for mortgage loans (%) -30%



SPI Project:

**Loss given default database**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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Loss Given Default (LGD) is an important credit risk exposure data requirement under Basel II, indicating the magnitude of the likely loss on the exposure, given key transaction characteristics such as the presence of collateral and the degree of subordination. Under the foundation methodology, LGD is estimated through the application of standard supervisory rules (the starting point proposed by Basel II is a 45% LGD value for most unsecured transactions and a 75% LGD applied to subordinated exposures). In the advanced methodology, the bank itself determines the appropriate LGD to be applied to each exposure, on the basis of robust data and analysis which can be validated both internally and by supervisors.

Thus, a bank using internal LGD estimates might be able to differentiate LGD values on the basis of a wider set of transaction characteristics (e.g., product type, wider range of collateral types) as well as borrower characteristics, potentially being able to reduce its capital requirements. However, banks wishing to use their own estimates of LGD will need to demonstrate to supervisors that they can meet requirements pertaining to the integrity and reliability of these estimates.

# Background\* - 2

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In order to comply with these features of the Basel II framework, the banks should set up a database containing loan-specific data, including transaction and cash flow information that would enable users to more accurately quantify the unique characteristics of loan credit risk. The LGD database would also provide a rich repository of loss experiences as most banks will not have enough internal observations to draw any meaningful conclusions.

In addition to its Basel II related functions, LDG is also a useful tool in assessing the adequacy of provisioning in the day to day management of the credit risk and provides to the authorities information that is relevant for financial stability monitoring purposes. At present, the National Bank of Romania developed only a model for corporate probability of default (PD), but the LGD was not yet approached. There is no evidence on whether the banks maintain LGD databases.

# Economic impact assessment - 1

## i - Section on capital relief

<b>A</b>	Outstanding amount of consumer loans (Mln, RON)	28,046
<b>B</b>	Outstanding amount of loans to SMEs (Mln, RON)	12,791
<b>C</b>	Percentage of each portfolio that will apply Basel provisions enabling use of LGD database (%)	30%
<b>D</b>	Current risk weight for the kind of loans above (%)	75%(**)
<b>E</b>	Estimate of average risk weight after the establishment of LGD database	50%

(\*)= On the assumption that this is a kind of loans that could benefit from the establishment of LGD database

(\*\*)= Basel I

# Economic impact assessment - 2

## i - Section on capital relief

**F** Free capital  $[(A+B) * C * (D-E) * F]$

1-year horizon: (Mln, RON)

368

5-year horizon: present value, (Mln, RON)

1,503

**G** Cost of equity

10%

**H** Savings in cost of capital  $[F * G]$

1-year horizon: (Mln, RON)

37

5-year horizon: present value, (Mln, RON)

150

# Economic impact assessment - 3

## ii - Section on market development

I	Average pricing of a consumer loan (%)	14.4%
J	Average pricing of loans to SMEs (%)	14.4%
K	Reduction of consumer loan pricing as a result of less capital absorbed (p.p.)	0.30 p.p.
L	Reduction of SMEs loan pricing as a result of less capital absorbed (%)	0.30 p.p.
M	Estimated interest elasticity of the demand for mortgage loans (%)	(0.3)
N	Demand increase (%)	0.63%
O	<b>Potential increase of demand for consumer loans and loans to SMEs (MIn, RON)</b>	
	<b><u>1-year horizon:</u> (MIn, RON)</b>	<b>77</b>
	<b><u>5-year horizon:</u> present value, (MIn, RON)</b>	<b>313</b>

# Analytics - 1

Capital relief	Outstanding amount of consumer loans (Mln, RON)	a)	28,046
	Outstanding loans to SMEs	b)	12,791
	Percentage of each portfolio that will apply Basel	c)	30%
	Current risk weight for the kind of loans above (%)	d)	75%
	Average risk weight after the set up of LGD database (%)	e)	50%
	Capital requirement (%)	f)	12%
	Free capital [Mln, RON]	$g)=(a+b)*c*(d \cdot e)*f$	<b>368</b>
	Cost of equity (%)	h)	10%
	Savings in cost of capital (Mln, RON)	$i)=g*h$	<b>37</b>
	Average pricing of a consumer loan (%)	j)	14.4%
Average pricing of loans to SMEs (%)	k)	14.4%	
Market development	Interest elasticity of the demand for mortgage loans (%)	l)	<b>(0.3)</b>
	Demand increase (%)	m)	0.63%
	Increase in demand for consumer loans (Mln, RON)	$n)=a*c*m$	<b>53</b>
	Increase in demand for loans to SMEs (Mln, RON)	$o)=b*c*m$	<b>24</b>
	Overall demand increase (Mln, RON)	$p=n+o$	<b>77</b>

		2007	2008	2009	2010	2011	5-year NPV
<b>PV - Capital freed due to establishment of LGD database (Mln, RON)</b>	<b>i)</b>	343.2	320.4	299.2	279.3	260.8	<b>1,503</b>
<b>PV - Overall demand increase (Mln, RON)</b>	<b>ii)=n+o</b>	71	67	62	58	54	<b>313.1</b>

Discount rate (%)	7.10%				
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664

# Analytics - 2

## Data and assumptions:

a) Loans that could benefit from the establishment of LGD are:

- i) consumer loans;
- ii) loans to SMEs.

b) By borrower, credit stock is composed as follows:

- i) households 35.7%
- ii) private companies 59.0%
- of which SMEs 28.5%
- iii) SOEs 5.30%

Source: *Convergence computations on "IMF, Romania: Selected issues and Statistical Appendix"*.

c) Outstanding amount of consumer loans (Mln, RON) 28,046

Source: *NBR, Financial Behaviour of Households and Companies, September 2006*

d) Outstanding amount of loans to SMEs was worked out as follows:

i) Loans in lei (Mln, RON) 44,882

Source: *NBR, Financial Behaviour of Households and Companies, September 2006*

ii) weight of SMEs (%) 28.5%

iii) Outstanding loans to SMEs (i\*ii) 12,791

d) Percentage of each portfolio that will apply Basel provisions enabling use of LGD database (%)

e) Percentage of each portfolio that will apply Basel provisions enabling use of LGD database (%) 30%

f) Current risk weight for the kind of loans above (%) 75%

g) Average risk weight after the set up of LGD database (%) 50%

h) Cost of equity (%) 10%

# Analytics - 3

i) Average pricing of consumer loans (%)	14.4%
<i>Source: NBR, Monthly Bulletin-Statistical Section, 9/2006, p. 19</i>	
j) Average pricing of loans to SMEs (%)	14.4%
k) Reduction of consumer loan pricing as a result of less capital absorbed. It is calculated as follows:	
i) loan=100	
ii) differential risk weight=25%	
iii) capital adequacy ratio=12%	
iv) cost of equity=10%	
v) cost of equity as pricing component= <b>0.30%</b>	
l) Reduction of pricing of loans to SMEs as a result of less capital absorbed. It is calculated as follows:	
i) loan=100	
ii) differential risk weight=25%	
iii) capital adequacy ratio=12%	
iv) cost of equity=10%	
v) cost of equity as pricing component= <b>0.6%</b>	
j) Estimated interest elasticity(*) of the demand for mortgage loans (%)	-30%





SPI Project:

**Rating Agencies Development**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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Under Basel II, banking regulators can allow banks to use credit ratings from certain approved credit rating agencies (called "ECAIs" - "External Credit Assessment Institutions") when calculating their capital requirements, provided that the ECAIs that produce those assessments have been recognised as eligible for that purpose by the competent supervisory authorities.

The Capital Requirements Directive (CRD) that transposes the provisions of the Basel II requirements allows EU member states to recognise an ECAI as eligible in two ways: direct recognition, in which the competent authority carries out its own assessment of the ECAI's compliance with the CRD eligibility criteria; and indirect recognition, in which the competent authority relies on the recognition of the ECAI by the competent authority of another member state. In broad terms, the CRD eligibility criteria for ECAIs refer to their objectivity, independence, international access/transparency, disclosure, resources, and credibility.

# Background\* - 2

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In Romania, which will fully transpose the CRD provisions as of January 2007, most of the local companies cannot afford to be clients of international rating agencies. Since borrowers unrated by ECAs will be assigned a 100% risk weighting according to CRD, initially most domestic credits may end up under this category. Therefore, in order to increase the risk sensitivity of the new capital framework, there is a perceived need for developing domestic ECAs.

At present, in Romania there are only three local rating agencies, whose main activities consist of drafting business credit reports, data quality checks, debt recovery, receivables management, and risk management consulting. Local rating agencies are not allowed to carry out rating activities due to lack of legislation in this area. The National Securities Commission (NSC) has drafted a regulation in this respect, which has not been issued as yet. Following the enactment of the NSC regulation, the NBR will have to issue distinct regulations stating the eligibility criteria for ECAs, based on which the ratings assigned by local ECAs could be used by banks for determining their capital requirements according to Basel II.

# Economic impact assessment - 1

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## i - Section on capital relief

<b>A</b>	Total non-government credit (September 2006) (Mln, RON) (*)	85,229
<b>B</b>	Total short-term credit to economic agents with majority private capital (September 2006) (Mln, RON) (*)	13,936
<b>C</b>	Percentage of credit granted to borrowers eligible for being rated by local CRAs (%)	15%
<b>D</b>	Amount of credit granted to borrowers eligible for being rated by local CRAs (Mln, RON) [B*C]	2,090
<b>E</b>	Percentage of credit granted that would receive a better assessment if rated by local CRAs (%)	10%
<b>F</b>	Amount of credit granted that would receive a better asses. if rated by local CRAs (%) [D*E]	209

# Economic impact assessment - 2

## i - Section on capital relief

<b>G</b>	Risk weight assigned as unrated credit (%)	100%
<b>H</b>	Risk weight assigned as rated credit (%)	50%
<b>I</b>	Capital adequacy ratio (%)	12%
<b>J</b>	Free capital (Mln, RON) [ $F * (G - H) - F$ ]	12,5
<b>J1</b>	Savings in cost of equity	
	<u>1-year horizon:</u> (Mln, RON) [ $A * B * df^{(1)}$ ]	1.3
	<u>5-year horizon:</u> present value (Mln, RON)	6.3

# Economic impact assessment - 3

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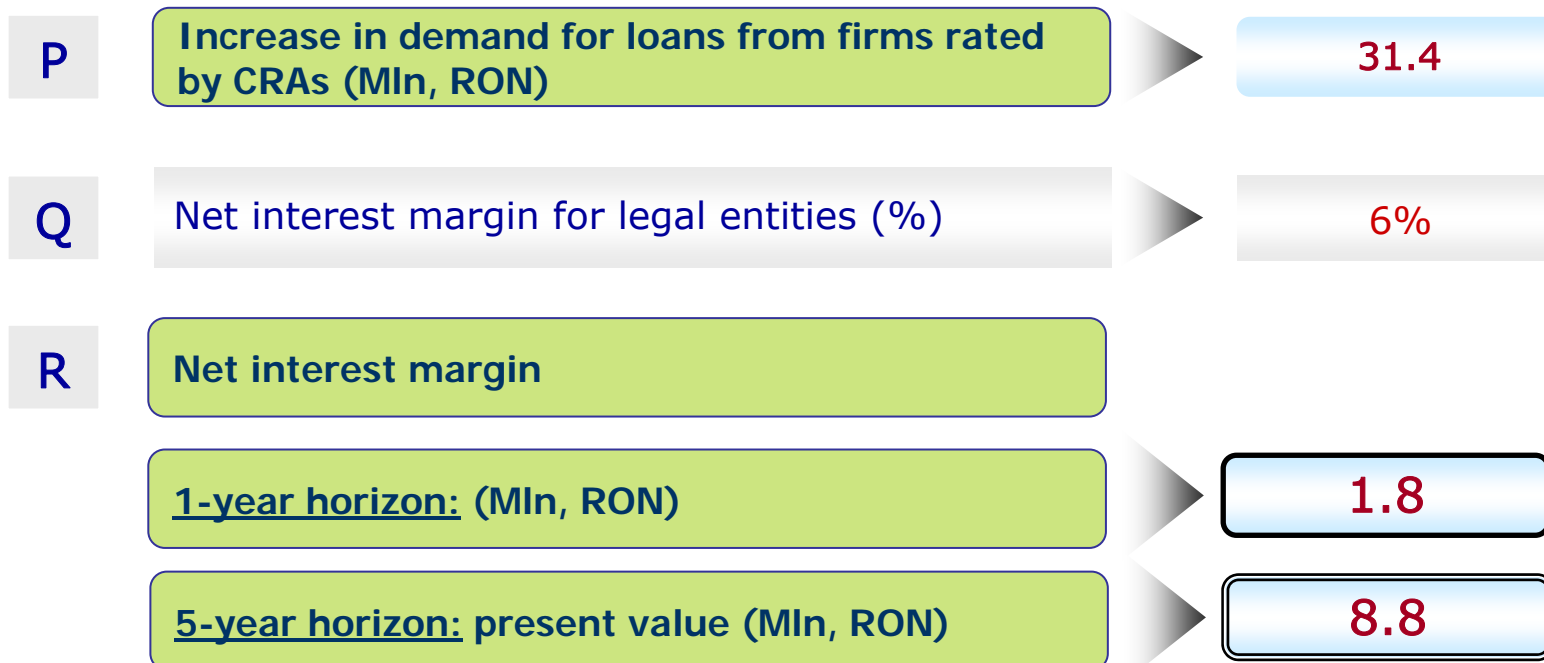
## ii - Section on market development

K	Estimate of the average standard pricing of a loan to companies (%)	12%
L	Cost of equity (%)	10%
M	Cost of equity savings in loan pricing due to freeing capital (%) $[100*(G-H)*I*L]$	0.60%
N	<b>New pricing due to capital savings (%) <math>[K-M]</math></b>	<b>11.4%</b>
O	Estimated interest elasticity of the demand (%)	(0.3)

# Economic impact assessment - 3

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## ii - Section on market development



# Analytics - 1

Total non-government credit(September 2006) (Mln, RON)	a)	85,229
Total short-term credit to economic agents with majority private capital (September 2006) (Mln, RON)	b)	13,936
Percentage of credit granted to borrowers eligible for being rated by local CRAs (%)	c)	15%
Amount of credit granted to borrowers eligible for being rated by local CRAs (Mln, RON)	d)=b*c	2,090
Percentage of credit granted that would receive a better assessment if rated by local CRAs (%)	e)	10%
Amount of credit granted that would receive a better assessment if rated by local CRAs (%)	f)=d*e	209
Risk weight assigned as unrated credit (%)	g)	100%
Risk weight assigned as rated credit (%)	h)	50%
Capital adequacy ratio (%)	i)	12%
Free Capital (Mln,RON)	j)	12.5
Estimate of the average standard pricing of a loan to eligible for but unrated companies (%)	k)	12%
st of equity savings in loan pricing due to freeing capital (%)	l)	0.60%
Decrease in pricing due to capital savings (%)	m)	11.4%
% of price reduction	n)	-5%
Interest elasticity	o)	-30.0%
Increase in demand for loans by companies rated by CRAs	p)=d*n*o	31.4
Net interest margin for legal entities (%)	q)	6%

2007      2008      2009      2010      2011

**PV - Savings in cost of equity (Mln, RON) i)=j\*COE (10%)**

1.3      1.3      1.3      1.3      1.3

**6.3**

**PV - Net interest margin for legal entities (%) (Mln, RON)**

1.8      1.8      1.8      1.8      1.8

**8.8**

5-years

Discount rate (%)      7.10%

Discount factor      0.933707      0.871808      0.814013      0.76005      0.709664



# Analytics - 2

## Data and assumptions:

### Basel II

#### Claims on corporates

Credit assessment	AAA to AA	A+ to A-	BBB+ to BB-	Below BB-	Unrated
Risk weight	20%	50%	100%	150%	100%

- |   |     |
|---|-----|
| a) Percentage of credit granted to borrowers eligible for being rated by local CRAs (%)           | 15% |
| b) Percentage of credit granted that would receive a better assessment if rated by local CRAs (%) | 10% |
| c) Risk weight assigned as rated credit (%)   | 50% |
| d) Cost of equity   | 10% |
| e) Estimate of the average standard pricing of a loan to eligible for but unrated companies (%)   | 12% |

*Source: NBR, Monthly Bulletin, 9/2006, p. 22, table 8, new loans in RON, legal entities*

- |   |    |
|---|----|
| f) Net interest margin for legal entities (%) | 6% |
|---|----|

*Source: NBR, Monthly Bulletin, 9/2006, p. 22, table 8, new loans in RON, legal entities*



SPI Project:  
**Methodological Aspects of Stress Test  
For Banks Covering Households and  
Firms Exposures**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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Stress tests permit a forward-looking analysis and a uniform approach to identifying potential risks, generated by exceptional but plausible shocks, to the banking system as a whole, but also to individual institutions. System-wide stress tests can complement stress tests conducted by individual institutions, by acting as a cross-check for their own analyses and by identifying weaknesses in data collection, reporting systems, and risk management processes and practices. The process itself can help to increase expertise in risk assessment by supervisors and the institutions involved, and promote cooperation and a broader understanding of risks by different stakeholders.

Financial institutions and authorities have long recognized the strong interdependencies between the profitability and balance sheet soundness of financial intermediaries and the creditworthiness of households and firms. A stress test covering households and firms exposures could offer important indications on their capacity to withstand macroeconomic shocks (such as sharp movements in interest rates, exchange rates, GDP, employment) and how their debt servicing capacity could affect the banking sector.

# Background\* - 2

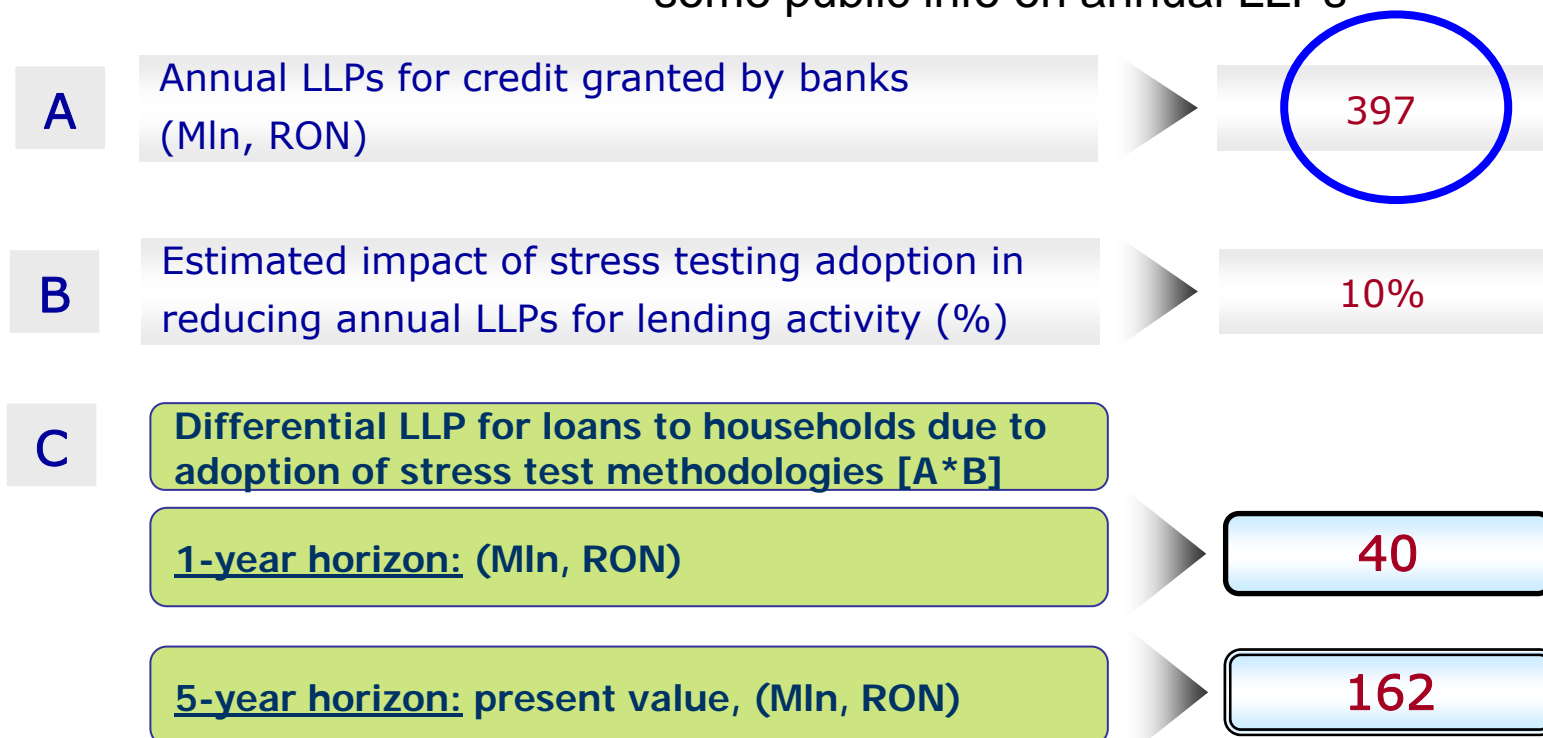
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At present, the National Bank of Romania and credit institutions do not have comprehensive and homogenous models to stress test the households and corporate sectors credit exposures. So far, NBR has developed a logit model that estimates the probability of default for the corporate sector, which is not integrated into a model that stress tests the entire financial system. Likewise, NBR is in the process of gathering data concerning the household sector in order to develop a model that reveals the links between the ability of households to service debt (i.e. probability of default) and the financial system. Such models could also help the individual banks to strengthen evidence supporting loan loss and general reserve provisioning, and credit risk strategies to reduce credit risk cost. No information is available on whether such models are developed by local financial institutions.

# Economic impact assessment - 1

This is a static representation of the methodology

Please, ask them if there is somewhere some public info on annual LLPs



# Analytics - 1

Overall annual net provisions expenses under RAS (Mln,	a)	397
Estimated impact of stress testing adoption in reducing annual LLPs for lending activity (%)	b)	10%
Annual savings in LLPs for lending activity due to benefits from stress testing application (Mln, RON)	c)=a*b	<b>40</b>

		2007	2008	2009	2010	2011	5-year NPV
<b>PV - Annual savings in LLPs for lending activity due to benefits from stress testing application (Mln, RON)</b>	<b>i)</b>	37.1	34.6	32.3	30.2	28.2	<b>162</b>

Discount rate (%)	7.10%					
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664	

# Analytics - 2

## Data and assumptions:

a) Overall annual net provisions expenses under RAS (Mln, RON) 397

*Source: See Preliminary RIA on IFRS. The figure here above refers to overall annual net provision expenses under RAS.*

b) Annual amount of LLPs remains steady over next years.

c) Estimated impact of stress testing adoption in reducing annual LLPs for lending activity (%) 10%



SPI Project:

**Amendment of the law on goods  
safeguard, values and persons protection**

**Regulatory Impact Assessment  
Approach Note**

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# Background\* - 1

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At present, Law no. 333/2003 regulates the goods safeguard, values and persons' protection, whose provisions apply to all commercial companies, including banks. Banks are confronted with some practical difficulties in applying the provisions of the law, of which the most important are:

1. Each territorial unit of banks has to draw up safeguard plans, which are subject to a complicated and lengthy approval procedure by the police. This can delay the setting up of new territorial units by two months. Also, any subsequent modification of the safeguard plans has also to get the approval of the police that can request new safety measures resulting in additional costs for banks;
2. Each territorial unit of banks has to draw up transportation plans for valuables, which are also subject to police approval, regardless the fact that in some cases banks have externalized the transport of valuables to specialized companies. Any change in the transportation plans for valuables has also to be approved by the police;
3. The banks have to dispose of non-stop video monitoring in each of the territorial units. The full records of the monitoring have to be archived for 30 days, even if monitoring sensors have not been activated during this time, resulting in the storing of a large amount of "blank" records;

# Background\* - 2

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4. The requirements for the physical security of the banks' managers are cumbersome (*to be further clarified*);
5. The provisions of the law do not provide clear guidance on how to correlate the security requirements with the degree of criminality corresponding to the location of the territorial units of banks.

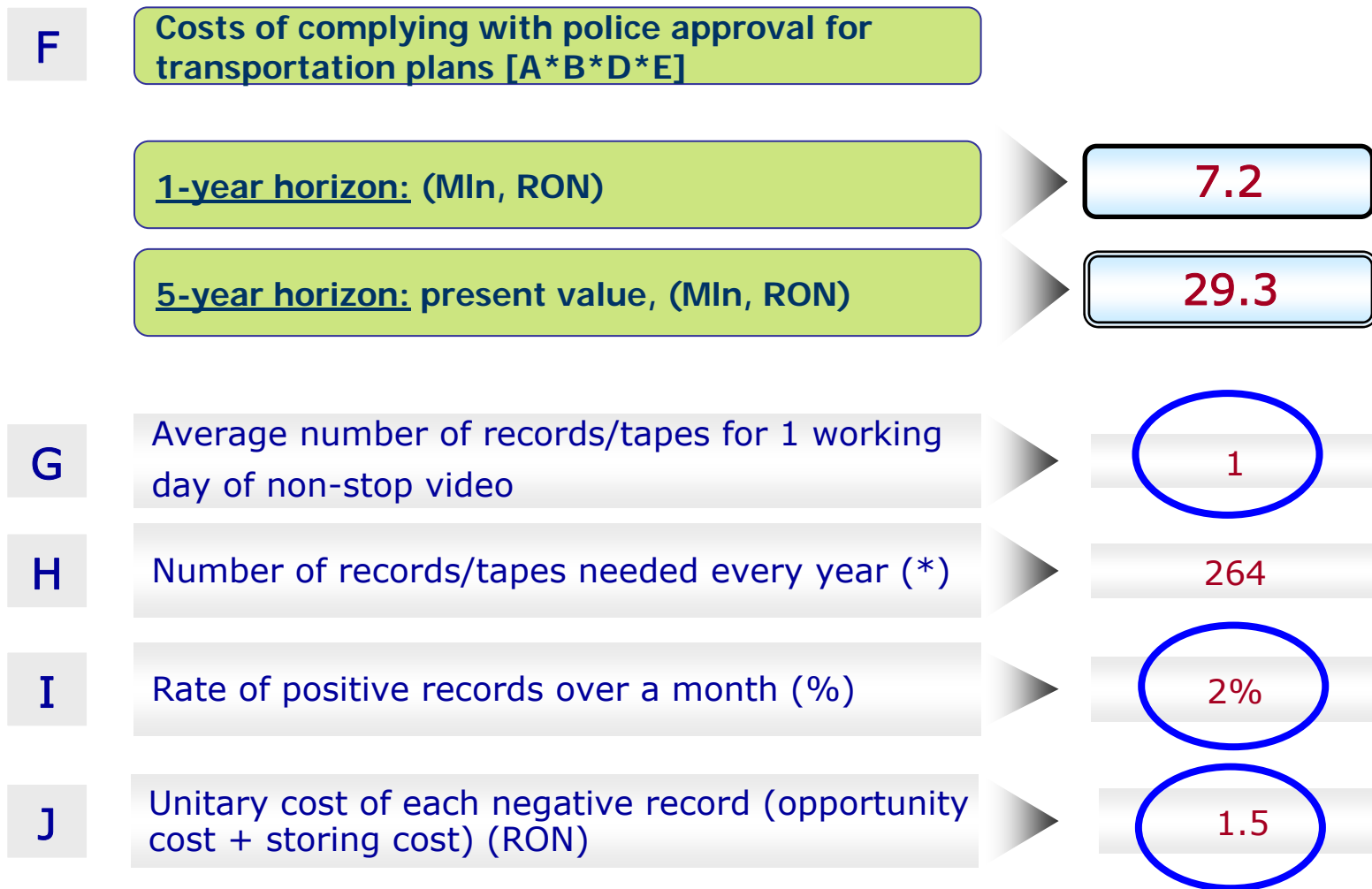
The provisions of the law apply to all territorial units of banks, estimated at 4000 units at the end of July 2006 (the growth rate of the banking network is of 24%/year). In practice, the above mentioned drawbacks of the law generate additional costs for banks and complicate their organizational structures. In this context, RBA wants to propose amendments to the current law to reduce the cost of compliance to the banking system.

# Economic impact assessment - 1

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<b>A</b>	Total territorial units of banks	3,845
<b>B</b>	Average number of transportation plans over a year drawn by each unit for police approval	24
<b>C</b>	% total territorial units that externalize the transport of valuables	40%
<b>D</b>	Time needed by each unit to take care of the approval procedure (FTE)	
	<b>D-1</b> Average unit that rely on internal services	0.25
	<b>D-2</b> Average unit that externalizes	0.50
<b>E</b>	Gross daily cost of a bank staff (RON)	222

# Economic impact assessment - 2



(\*)= Working days

# Economic impact assessment - 3

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K

Costs of complying with storing "blank" records in each of the territorial unit

1-year horizon: (Mln, RON)

1.5

5-year horizon: present value, (Mln, RON)

6.1

L

Overall impact [F+K]

1-year horizon: (Mln, RON)

8.7

5-year horizon: present value, (Mln, RON)

35.4

# Analytics - 1

Total territorial units of banks	a)	3,845
Average number of transportation plans over a year drawn by each unit for police approval (#)	b)	24
% total territorial units that externalize the transport of valuables	c)	40%
Time needed by each unit to take care of the approval procedure (FTE)	d)	
Average unit that rely on internal services	d1)	0.25
Average unit that externalize	d2)	0.50
Gross daily cost of a bank staff (RON)	e)	222
Costs of complying with police approval for transportation plans (Mln, RON)	f)=a*b*d*e	<b>7.2</b>
Average number of records for 1 working day of non-stop	g)	1
Rate of positive records over a month (%)	h)	2%
Unitary cost of each negative record (opportunity cost + storing cost) (RON)	i)	1.5
Number of records needed every year [#]	i)	264
Costs of complying with storing "blank" records in each of the territorial unit (Mln, RON)	j)	<b>1.5</b>

		2007	2008	2009	2010	2011	5-year NPV
<b>PV - Costs of complying with police approval for transportation plans (Mln, RON)</b>	i)	6.7	6.3	5.8	5.4	5.1	<b>29.3</b>
<b>PV - Costs of complying with storing "blank" records in each of the territorial unit (Mln, RON)</b>	ii)	1.4	1.3	1.2	1.1	1.1	<b>6.1</b>

Discount rate (%)	7.10%					
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664	

# Analytics - 2

## Data and assumptions:

a) % total territorial units that externalize the transport of valuables		40%
b) Time needed by each unit to take care of the approval procedure (FTE)		
i) Average units that rely on internal services	0.25	
ii) Average units that externalize	0.50	
c) Gross daily cost of a bank staff (RON)		222
d) Average number of records for 1 day of non-stop video (#)		
e) Rate of positive records over a month (%)		2%
f) Unitary cost of each negative record (opportunity cost + storing cost) (RON)		2
g) Number of records needed every year [#] ( <i>1 record per working day</i> )		264



SPI Project:  
**Ombudsman and Consumer Education**

**Regulatory Impact Assessment**  
Approach Note

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# Background\* - 1

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In Romania, there is a perceived need to adequately address the complaints made by individual consumers or businesses against the financial service providers and to improve the public image of the banks. Unsatisfied clients send their complaints to the financial institution itself and, if they are not resolved satisfactorily, they submit them to the National Authority for Consumers Protection (NAPC), National Consumers' Association (APC), or to the National Bank of Romania (NBR). Hence, there is no specialized and impartial institution or process in charge of the protection of bank customers.

Most European countries have established successful Banking Ombudsman schemes in the past 30 years, either financed by banks or set up as external organizations. Their increasing popularity lies in their ability to settle a large volume of specialized cases in a flexible way and within a short period of time, as compared to bureaucratic and time-consuming remedies, such as court proceedings. For example, the Italian Banking Ombudsman received about 4,700 complaints in 2004 and addressed a large majority of them.

As Romania is about to join the EU, the Romanian banking industry needs to be tuned with European recent developments in the financial consumer protection area.

# Background\* - 2

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The European Commission has supported the creation of an informal network of national ombudsmen (“Fin-Net”) to help settle cross-border disputes between private retail investors and financial services companies. Another EU benchmark is the FIN-USE group of experts

Consumer education should be a permanent preoccupation of the banking industry and authorities as better informed consumers are able to improve their risk management capacity and make informed choices that will promote competition among financial institutions.

# Economic impact assessment - 1

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<b>A</b>	Number of complaints received in 2006 by all banks (#)	19,070
<b>B</b>	Rejected complaints (%)	35%
<b>C</b>	Number of complaints rejected in 2006 (#) [A*B]	6,675
<b>D</b>	Approximate % of complaints that go to Ombudsman out of total complaints sent to banks' complaint offices	3%
<b>E</b>	Complaints that could be addressed to Ombudsman instead of to a court (#) [C*D]	200

# Economic impact assessment - 2

<b>F</b>	Daily rate for a lawyer (bank employee) (RON)	226
<b>G</b>	Number of complaints that would be fully worked by a lawyer, over a working day, in case of court dispute	3
<b>H</b>	Overall time needed by a lawyer to process all complaints going to a court lacking an Ombdusman (# FTE) [E/G]	67
<b>I</b>	<b>Overall cost for a lawyer who processes all complaints going to a court lacking an Ombdusman</b>	
	<b><u>1-year horizon:</u> (Mln, RON)</b>	<b>0.01</b>
	<b><u>5-year horizon:</u> present value (Mln, RON)</b>	<b>0.7</b>
<b>J</b>	<b>Annual cost for a banking Ombdusman (Mln, RON)</b>	<b>0.3</b>

# Analytics - 1

Number of complaints received in 2006 by all banks (#)	a)	19,070
Rejected complaints (%) (*)	b)	35%
Number of complaints rejected in 2006 (number)	c)=a*b	6,675
Complaints that could be addressed to Ombudsman (as an appeal solution) instead of to a court (%)	d)	3%
Complaints that could be addressed to Ombudsman (as an appeal solution) instead of to a court (number)	e)=c*d	200
Daily rate for a lawyer (bank employee) (RON)	f)	226
Number of complaints that would be fully worked by a lawyer, over a working day, in case of court dispute	g)	3
Overall time needed by a lawyer to process all complaints going to a court lacking an Ombudsman (# FTE)	h)=e/g	67
Overall cost for a lawyer who processes all complaints going to a court lacking an Ombudsman (RON)	i)	15,084

		2007	2008	2009	2010	2011	
Growth rate of number of complaints by Romanian banks (%)	i)	40%	40%	40%	40%	40%	
Number of complaints by Romanian banks (%)	ii)	26,698	37,377	52,328	73,259	102,563	
Complaints to Ombudsman instead of a court (number)	iii)=i*d	801	1,121	1,570	2,198	3,077	
Overall time needed by a lawyer to process all complaints going to a court lacking an Ombudsman (# FTE)	iv)=iii/g	267	374	523	733	1,026	
<b>PV - Overall cost needed by a lawyer to process all complaints going to a court lacking an Ombudsman (RON)</b>	v)= iv*f	60,337	84,472	118,261	165,566	231,792	<b>660,430</b>

5-years

Discount rate (%)	7.10%				
Discount factor	0.933707	0.871808	0.814013	0.76005	0.709664

# Analytics - 2

## Data and assumptions:

a) Number of complaints received in 2006 by 14 banks (out of 38) (#)	9,535
<i>Source: Convergence survey</i>	
b) Multiplying index to repropionate to all banking system	2
c) Number of complanites received in 2006 by all banks (#)	19,070
d) Approximate % of complaints that go to Ombudsman out of total complaints sent to banks' complaint offices (Italy, Year 2005)	3%
e) Daily rate for a lawyer (bank staff or professional)	
i) Annual cost for a banking employee (Eur)	17,000
<i>Source: Roland Berger</i>	
ii) Working days	270
iii) Daily cost of bank employee (EUR)	62.96
iv) RON/EUR exchange rate	3.52
v) Daily cost of a bank employee (RON) (iii*iv)	222
f) UK: adjudicator's productivity per day (# of cases)	4.4
<i>Source: British Ombudsman's Annual Report</i>	
g) Romania: adjudicator's productivity per day (# of cases)	3
h) Annual average growth rate of number of complaints by Romanian banks from 2007 to 2011 (%)	40%

# Analytics -3

## Ombudsman cost structure

i) Breakdown of the Italian Ombudsman's approximate annual expenses composition:

i) Staff expenses	56%
ii) HQ-related expenses	10%
iii) General and administrative exp. (external consultancy included)	26%
iv) Tax	7%
v) Depreciation	1%
	<hr/>
	100%

j) Breakdown of the Romania Ombudsman's costs composition:

-> The staff initially could be calculated with three persons: 1 Ombudsman, 1 secretary and 1 specialist/expert to deal with customer complaints

-> premises are leased

i) Staff expenses (RON)	145,000	48%
ii) HQ-related expenses (RON)	70,000	23%
iii) General and administrative exp. (RON)	63,000	21%
iv) Tax (RON)	17,000	6%
v) Depreciation (RON)	5,000	2%
vi) TOTAL ANNUAL COSTS (RON)	<hr/> 300,000	