

# Convergence Romania Financial Sector Modernization

Special Projects Initiative Public-Private Steering Committee



# Regulatory Impact Assessment

**12 SPI Committee Projects**

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Workshop

Romanian Banking Association

Bucharest 15-16 January, 2007

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# About the Workshop...

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**Object:** To review the preliminary Regulatory Impact Assessment (RIA) on 12 Romania SPI projects.

**Methodology:** To go through RIA techniques applied to project by project in an interactive way with Project Working Group (PWG) members.

**Aim:**

- To develop awareness among “SPI Projects Community” about the economic relevance of each project;
- To improve understanding of preliminary RIA estimates and rationale;
- To help PWG members use RIA tool to assess regulatory options discussed within Working Groups.

# RIA session: program

## ***January 15th:***

- 9.40 – 9.50: ***An introduction to RIA and how banking industry is affected by regulation***
- 9.50 – 11.00: ***First group of projects***  
*Rural lending, IFRS, Rating agencies, Ombudsman.*
- 11.15 – 12.15: ***Second group of projects***  
*Law on safety, Stress testing, Bank guarantees.*

## ***January 16th:***

- 9.40 – 9.50: ***An introduction to RIA and how banking industry is affected by regulation***
- 9.50 – 11.00: ***Third group of projects***  
*Credit Bureau, Debit Instruments, AML, Databases.*
- 11.15 – 12.15: ***Fourth group of projects***  
*Rural lending, IFRS, Rating agencies, Law on safety.*

# Invited Participants (1)

## SPI Projects Community

BANK	PWG Members
<b>Alphabank</b>	- Ms. Monica Iovu - Mr. Tudor Taslaoanu - Ms. Cornelia Dimistrescu - Ms. Beatrice Popescu - Mr. G. Carabasan
<b>Banca Anglo Romana</b>	- Mr. Traian Vasilescu
<b>Bancpost</b>	- Mr. Ionel Arghiroiu - Ms. Marilena Popovici - Ms. Daniela Barbu - Ms. Liana Teodorescu - Ms. Adina Bulgaru - Mr. Mihai Stoica - Ms. Luminita Cioaca
<b>BCR</b>	- Mr. Doru Bulata - Mr. Arion Negrila - Mr. Dragos Stoian - Mr. Constantin Rotaru - Ms. Dana Zachii - Mr. A. Zaharescu - Mr. Alexandru Berea - Mr. Marian Georgescu - Ms. Ramona Ivan - Ms. Dana Stroescu - Ms. Ileana Velicu
<b>BRD-GSG</b>	- Ms. Maria Sheikh-Ahmad - Mr. Constantin Jumuga - Mr. Alin Lupea - Mr. Gelu Ghergescu

BANK	PWG Members
<b>CEC</b>	- Mr. Viorel Hodoiu - Mr. Iulius Mironescu
<b>Finansbank</b>	- Ms. Magda Calangiu
<b>HVB Tiriac Bank</b>	- Mr. Iulian Zaharia
<b>Mindbank</b>	- Mr. Mihai Pitica
<b>OTP Bank</b>	- Mr. Dragos Cabat - Ms. Victoria Preoteasa
<b>Raiffeisen Banca pt. Locuinte</b>	- Ms. Ana Costea - Ms. Cristina Pieleanu - Ms. Bogdana Grigoriu
<b>RIB</b>	- Mr. Horatius Schiopu
<b>RZB Romania</b>	- Mr. Jianu Lazar - Ms. Lucia Stefan - Ms. Adriana Blogu - Ms. Margareta Puschiaza - Ms. Eugen Bezdedeanu
<b>Unicredit Romania</b>	- Mr. Sergiu Boga - Ms. Madalina Cristea - Mr. Nicolae Craciun - Ms. Daniela Copoiu
<b>Total</b>	<b>48</b>

# Invited Participants (2)

## SPI Projects Community

OTHER STAKEHOLDERS	PWG Members
<b>AML Office</b>	- Ms. Paula Lavric
<b>Credit Bureau</b>	- Mr. Serban Epure - Mr. Doru Calitoiu.
<b>FGCR</b>	- Ms. Ileana Bratu
<b>Ministry of Agriculture</b>	- Mr. Aurica Stoica
<b>MPF</b>	- Ms. Simona Butoi - Ms. Victoria Mandru - Ms. Monica Bizon - Ms. Gheorghita Toma - Mr. Cezar Luca - Ms. Magda Scriciu - Ms. Irina Zamfirescu
<b>NBR</b>	- Mr. Florian Neagu - Mr. Alis Avramescu - Mr. Ianfred Silberstein - Ms Isabelle Chelariu - Ms. Dina Ilie - Ms. Raluca Cristofor - Mr. Goerge Popescu - Ms. Angela Margarit - Mr. Traian Pometcu - Mr. Bogdan Moinescu - Mr. Romulus Mircea - Ms. Ruxandra Avram
<b>NACP</b>	- Mr. Mihail Meiu
<b>Transfond</b>	- Ms. Mirela Palade
<b>Total</b>	26

# ***Agenda***

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*I. What Regulatory Impact Assessment is;*

*II. Preliminary RIA on SPI projects;*

- **Expansion of Credit Bureau Services;**
- **Debit Instruments Clearing and Settlement;**
- **Anti Money Laundering Law (AML);**
- **Rural lending;**
- **Law on Bank Guarantees;**
- **Loan Loss Provisioning in View of IFRS Application;**
- **Mortgage Loans Database;**
- **LGD Database;**
- **Rating agencies;**
- **Stress testing;**
- **Law on safety;**
- **Ombudsman.**

*III. Concluding remarks.*

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# **I. What Regulatory Impact Assessment is**

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*«It is an analysis of the likely impacts of a policy change and the range of options for implementing it»*

**The Better Regulation Executive**  
**([www.cabinetoffice.gov.uk/regulation/ria/](http://www.cabinetoffice.gov.uk/regulation/ria/))**

*«Impact assessment is an aid to decision-making, not a substitute for it»*

**European Commission**  
**([Impact Assessment Guidelines](#))**

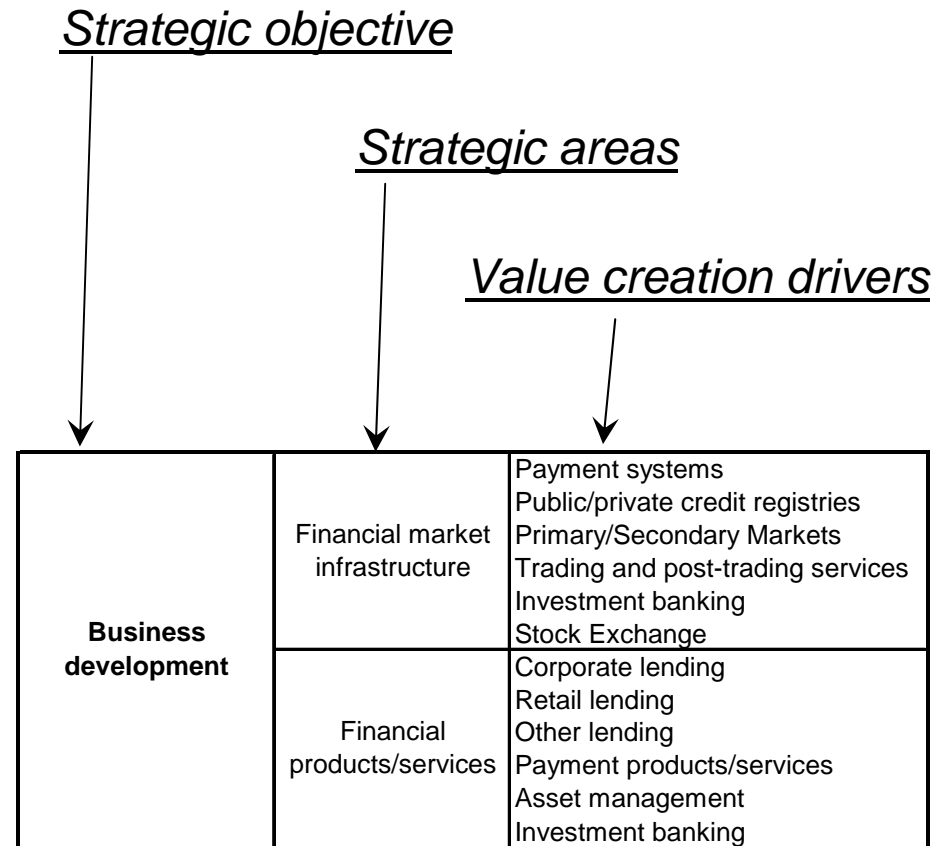
Impact assessment allows to:

- ✓ Ascertain of whether or not the new regulation would have the desired impact;
- ✓ Identify any possible side effects or hidden costs associated with regulation;
- ✓ Quantify the likely costs of compliance on individuals and enterprises.



# Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other Collective labor contract Any other further integrating labor Regulation on labor



<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
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# Balance Sheet and Income Statement items affected

## BALANCE SHEET

### Assets

<input type="text"/>	Customer Loans
<input type="text"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="text"/>	Problem Loans - memo
	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="text"/>	Other Earning Assets
<input type="text"/>	Due from Other Banks
<input type="text"/>	Other Securities
<input type="text"/>	Investment Securities
<input type="text"/>	Trading Securities
	<i>Total Securities</i>
<input type="text"/>	Equity Investments
	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="text"/>	Cash and Due from Banks
<input type="text"/>	Intangible Assets
<input type="text"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	Total Fixed Assets

### Liabilities

<input type="text"/>	Deposits
<input type="text"/>	Customer Deposits
<input type="text"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="text"/>	Money Market Funding
<input type="text"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="text"/>	Other Funding
<input type="text"/>	Other Bonds
<input type="text"/>	Subordinated Debt
<input type="text"/>	Other Funding
	<i>Total Other Funding</i>
<input type="text"/>	Loan Loss and Other Reserves
<input type="text"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="text"/>	Other Liabilities
<input type="text"/>	Other Liabilities
	Total Liabilities
<input type="text"/>	Equity Reserves
<input type="text"/>	Retained Earnings
<input type="text"/>	Other Equity Reserves
<input type="text"/>	Minority Interests
	Total Equity Reserves

## INCOME STATEMENT

<input type="text"/>	Interest Income
<input type="text"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="text"/>	Commision Income
<input type="text"/>	Commision Expense
	<i>Net Commission Revenue</i>
<input type="text"/>	Net Trading Income
<input type="text"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="text"/>	Personnel Expenses
<input type="text"/>	Other Admin Expenses
<input type="text"/>	Other Operating Expenses
<input type="text"/>	Loan Loss Provisions
<input type="text"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="text"/>	Taxes
	<i>Post Tax Profit</i>
	<u>Focus:</u>
<input type="text"/>	Capital
<input type="text"/>	Tier 1 Capital Ratio
	Total Capital Ratio

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## **II. Preliminary RIA on SPI projects**

# Expansion of Credit Bureau Services

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## ***Context***

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.

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.

# Expansion of Credit Bureau Services

Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting Safety net
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	Labor Market	Unemployment Fund and other Collective labor contract Any other further integrating labor Regulation on labor

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
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# Expansion of Credit Bureau Services

Regulatory solutions have a concrete impact

## *Main policy choices*

- “Wide positive information sharing”;
  - “Length of information retention”;
  - “Borrower consent”;
- .....

*Each item  
impacting  
on ...*

## *Main Balance Sheet and Income Statement items affected*

- ??
  - ??
  - ??
- .....

# Expansion of Credit Bureau Services

## Balance Sheet and Income Statement items affected

BALANCE SHEET		INCOME STATEMENT	
<b>Assets</b>	<b>Liabilities</b>		
<input type="checkbox"/> Customer Loans	<input type="checkbox"/> Deposits	<input type="checkbox"/>	<input type="checkbox"/> Interest Income
<input type="checkbox"/> Other Loans	<input type="checkbox"/> Customer Deposits	<input type="checkbox"/>	<input type="checkbox"/> Interest Expense
<i>Total Customer Loans</i>	<i>Total Deposits</i>		<i>Net Interest Revenue</i>
<input type="checkbox"/> Problem Loans - memo		<input type="checkbox"/>	<input type="checkbox"/> Commision Income
<input type="checkbox"/> Other non-performing Loans		<input type="checkbox"/>	<input type="checkbox"/> Commision Expense
<i>Total Problem Loans</i>	<input type="checkbox"/> Money Market Funding		<i>Net Commision Revenue</i>
<i>Total Loans - Net</i>	<input type="checkbox"/> Other Negotiable Instruments	<input type="checkbox"/>	<input type="checkbox"/> Net Trading Income
	<i>Total Money Market Funding</i>	<input type="checkbox"/>	<input type="checkbox"/> Other Operating Income
<input type="checkbox"/> Other Earning Assets			<i>Total Operating Income</i>
<input type="checkbox"/> Due from Other Banks	<input type="checkbox"/> Other Funding	<input type="checkbox"/>	<input type="checkbox"/> Personnel Expenses
<input type="checkbox"/> Other Securities	<input type="checkbox"/> Other Bonds	<input type="checkbox"/>	<input type="checkbox"/> Other Admin Expenses
<input type="checkbox"/> Investment Securities	<input type="checkbox"/> Subordinated Debt	<input type="checkbox"/>	<input type="checkbox"/> Other Operating Expenses
<input type="checkbox"/> Trading Securities	<input type="checkbox"/> Other Funding	<input type="checkbox"/>	<input type="checkbox"/> Loan Loss Provisions
<i>Total Securities</i>	<i>Total Other Funding</i>	<input type="checkbox"/>	<input type="checkbox"/> Other Provisions
<input type="checkbox"/> Equity Investments		<input type="checkbox"/>	<i>Total Operating Expense</i>
<input type="checkbox"/> Other Investments	<input type="checkbox"/> Loan Loss and Other Reserves		<i>Non-Operating Income</i>
<i>Total Other Earning Assets</i>	<input type="checkbox"/> Other Non Equity Reserves		<i>Pre-Tax Profit</i>
	<i>Total Loan Loss &amp; Other Reserves</i>	<input type="checkbox"/>	<input type="checkbox"/> Taxes
<input type="checkbox"/> Non-Earning Assets			<i>Post Tax Profit</i>
<input type="checkbox"/> Cash and Due from Banks	<input type="checkbox"/> Other Liabilities		
<input type="checkbox"/> Intangible Assets	<input type="checkbox"/> Other Liabilities		
<input type="checkbox"/> Other Non Earning Assets			
<i>Total Non Earning Assets</i>	<b>Total Liabilities</b>		
<input type="checkbox"/> Fixed Assets	<input type="checkbox"/> Equity Reserves		
<i>Total Fixed Assets</i>	<input type="checkbox"/> Retained Earnings		
	<input type="checkbox"/> Other Equity Reserves		
	<input type="checkbox"/> Minority Interests		
	<i>Total Equity Reserves</i>		
		<b>Focus:</b>	
		<input type="checkbox"/>	<input type="checkbox"/> Capital
		<input type="checkbox"/>	<input type="checkbox"/> Tier 1 Capital Ratio
			<input type="checkbox"/> Total Capital Ratio

# Expansion of Credit Bureau Services

Regulatory solutions have a concrete impact

## *Main policy choices*

- “*Wide positive information sharing*”;
  - “*Length of information retention*”;
  - “*Borrower consent*”;
- .....

*Each item  
impacting  
on ...*

## *Main Balance Sheet and Income Statement items affected*

- Loan volume;
  - Interest income;
  - Non-performing loans;
  - Loan Loss Provisions;
- .....



# Expansion of Credit Bureau Services

## 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)	42.5%
Additional new loans (Mln, RON)	$f)=((a*e)/c)-a$	471.6
Net interest margin (%)	g)	6.6%
Gross financial margin (Mln RON)	$h)=f*g$	31
Additional Loan Loss Provisions (LLP) (Mln, RON)	$i)=d*f$	8.7
Net financial margin	$j)=h-i$	22.4
Lower LLP on overall flow (Mln, RON)	$k)=(a*(d-b))$	-71
Overall annual benefits (Mln, RON)	$l)=j-k$	93.4

		2007	2008	2009	2010	2011
Average annual credit flow to households (2004-2005, Mln RON)	1)	8,678	9,980	11,477	13,198	15,178
Growth rate	2)	15%	15%	15%	15%	15%
Loan approval rate	3)	42.5%	45%	48%	54%	60%
Additional new loans (Mln, RON)	$4)=(1*(3/c))-1$	542	1,247	2,295	4,619	7,589
Net interest margin (%)	5)	6.6%	6.6%	6.0%	6.0%	5.5%
Net interest margin (Mln RON)	$6)=4*5$	36	82	138	277	417
Additional Loan Loss Provisions (LLP) (Mln, RON)	$7)=d*3$	10	23	42	85	140
Net financial margin	$8)=5-6$	26	59	95	192	278
Lower LLP on overall flow (Mln, RON)	$9)=(1*(d-b))$	-82	-94	-108	-124	-143
Overall annual benefits (Mln, RON)	$10)=7-8$	107	153	203	316	420
<b>PV - Overall benefits (Mln, RON)</b>	<b>11)</b>	<b>100.3</b>	<b>133.5</b>	<b>165.5</b>	<b>240.3</b>	<b>298.4</b>

**938.1**

Discount rate (%)	7.10%
Discount factor	0.93370682 0.871808 0.814013 0.76005 0.709664

# Expansion of Credit Bureau Services

## 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%
- | year | 2007  | 2008 | 2009 | 2010 | 2011 |
|------|-------|------|------|------|------|
|      | 42.5% | 45%  | 48%  | 54%  | 60%  |
- f) Net interest margin(\*\*): 6.6%
  - g) Growth rate of credit flow to households: 15%

(\*)= 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

# Expansion of Credit Bureau Services

## Economic impact assessment - 1

<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 (%)	42.5%
<b>F</b>	Additional new loans (Mln, RON) $[(A * E) / C - A]$	471.6
<b>G</b>	Net interest margin (%)	6.6%

# Expansion of Credit Bureau Services

## Economic impact assessment - 2

H	Gross financial margin (Mln, RON) [F*G]	31
I	Additional Loan Loss Provisions (LLP) (Mln, RON) [D*F]	8.7
J	Net financial margin (Mln, RON) [H-I]	22.4
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>93</b>
	<b>5Y horizon: Present value - Overall benefits (Mln, RON)</b>	<b>938</b>

*Based also  
on RB data*

# Debit Instruments Clearing and Settlement

## **Context**

Currently, checks and other debit instruments are processed manually, while all the credit payment instruments are electronically processed. Many in the banking industry feel that a permanent solution has to be found.

NBR is currently working on two parallel initiatives:

- a) an interim solution (referring to 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.

# Debit Instruments Clearing and Settlement

Based also on RB data

Industry competitiveness	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

## Type of Regulatory Optimization

Business development	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

Industry reputation	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
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*Based also  
on RB data*

# Debit Instruments Clearing and Settlement

Regulatory solutions have a concrete impact

## **Main policy choices**

- “*elimination of paper-based instruments, by truncating DIs*”
- “*reduction of manual operations and elimination of clearing paper documentation through electronic submission of debit payment instructions and DI images*”
- “*automatically generated reports*”
- “*shift from paper-based instruments archiving to electronic archiving*”
- “*settlement risk mitigation by using a single collateral scheme for all cleared debit instruments*”
- “*better use of SENT system*”
- “*automated reporting to the Payments Incident Office*”

**Each item  
impacting  
on...**

## **Main Balance Sheet and Income Statement items affected**

- ??
  - ??
  - ??
- .....





**Based also  
on RB data**

# Debit Instruments Clearing and Settlement

## Regulatory solutions have a concrete impact

### **Main policy choices**

- “*elimination of paper-based instruments, by truncating DIs*”
- “*reduction of manual operations and elimination of clearing paper documentation through electronic submission of debit payment instructions and DI images*”
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- “*settlement risk mitigation by using a single collateral scheme for all cleared debit instruments*”
- “*better use of SENT system*”
- “*automated reporting to the Payments Incident Office*”

**Each item  
impacting  
on...**

### **Main Balance Sheet and Income Statement items affected**

- Commission expense (paid to Transfond);
  - Personnel costs;
  - Administrative costs;
  - One-off IT investments;
- .....

# Debit Instruments Clearing and Settlement

## Analytics - 1

*Based also on RB  
(Roland Berger) data*

Banking industry	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)	h)=a*g	<b>11</b>
	Overall business-related staff savings (Mln, RON)	i)=a*b*c	<b>96</b>
	Overall savings from Transfond commissions (Mln, RON)	j)=(e-f)*d	<b>9</b>
Overall net benefits (Mln, RON)	l)=i+j-h	<b>94</b>	
Transfond	Transfond: Annual losses from paper-based business line under current framework (Mln, RON)	m)	<b>2</b>
	Transfond:T one-off investments (RON)	n)	<b>0.70</b>

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

# Debit Instruments Clearing and Settlement

## Analytics - 2

*Based also on RB  
(Roland Berger) data*

### Data and assumptions:

a) Savings in staff/bank as a result of the electronic processing (#) [Assuming that there 1 person in each of the 42 clearing units fully dedicated for this]	42
b) Annual wage/bank employee (Eur)	17,000
(RON)	59,840
<i>Source: Roland Berger, The impact of external regulation on the Romanian banking system.</i>	
c) Number of paper-based transactions in 2005 (#) [Source: TransFond. Available information provide this data only for 7,660,674 interbank transactions and not intrabank ones]	
d) Commissions charged by TransFond on each manually processed transaction (RON)	2.2
<i>Source: Transfond</i>	
e) Commissions charged by TransFond on each electronically processed transaction (RON)	1
f) Average IT investments needed by each bank to join the new framework (RON):	288,000
g) Transfond: average annual losses from paper-based business Line under current framework (Mln, RON)	2
<i>Source: Transfond</i>	
h) IT one-off investments (EUR)	200,000
(RON)	704,000

Based also  
on RB data

## Debit Instruments Clearing and Settlement

# Economic impact assessment - 1

### i – Banking industry

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

Based also  
on RB data

## Debit Instruments Clearing and Settlement

# Economic impact assessment - 2

### i – Banking industry

<b>G</b>	IT one-off investments per bank (RON)	288,000
<b>H</b>	Overall IT one-off investments borne by banks (Mln, RON) [A*G]	11
<b>I</b>	Overall business-related staff savings	
	<u>1-year horizon</u> : (Mln, RON) <sup>(1)</sup>	85
	<u>5-year horizon</u> : present value, (Mln, RON) <sup>(1)</sup>	380
<b>J</b>	Overall savings in TransFond commissions	
	<u>1-year horizon</u> : (Mln, RON)	9
	<u>5-year horizon</u> : present value, (Mln, RON)	38

(1)= Net of IT one-off investments

Based also  
on RB data

## Debit Instruments Clearing and Settlement

# Economic impact assessment - 3

i – Transfond

<b>A</b>	Average annual losses from paper-based business Line under current framework (Mln, RON)	2
<b>B</b>	IT one-off investments (RON)	704,000
<b>C</b>	Overall savings net of IT investments	
	<u>1-year horizon</u> : (Mln, RON) <sup>(1)</sup>	1.3
	<u>5-year horizon</u> : present value, (Mln, RON)	7.5

(1)= Net of IT one-off investments

## **Context**

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.

Currently, local stakeholders have suggested law amendments, some of them aiming at to improving the efficiency of the AML mechanism in harmonization with the provisions of the EU Third Directive.

# Anti Money Laundering Law (AML)

Based on RB data & methodology

Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
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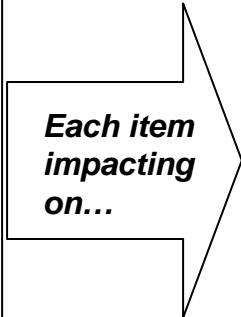
**Based on RB data  
& methodology**

# Anti Money Laundering Law (AML)

## Regulatory solutions have a concrete impact

### Main policy choices

- *“Reduced suspension period”*
- *“Decreased reporting frequency to AML Office from daily to bi-monthly”*
- *“Increased threshold for reporting to AML Office”*
- *“Exclusion of cash transactions between banks and between banks and NBR& Treasury from reporting”*
- *“Introducing the possibility that the compliance officer analyzes the STRs and sends to AML Office only the cases of reasonable suspicion”*
- *“AML Office will provide bi-annual feedback on the results of STRs”*



### Main Balance Sheet and Income Statement items affected

- ??
- ??
- ??

.....

**Based on RB data  
& methodology**

# Anti Money Laundering Law (AML)

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="text"/>	Customer Loans
<input type="text"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="text"/>	Problem Loans - memo
	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="text"/>	Other Earning Assets
<input type="text"/>	Due from Other Banks
<input type="text"/>	Other Securities
<input type="text"/>	Investment Securities
<input type="text"/>	Trading Securities
	<i>Total Securities</i>
<input type="text"/>	Equity Investments
	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="text"/>	Cash and Due from Banks
<input type="text"/>	Intangible Assets
<input type="text"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	Total Fixed Assets

#### Liabilities

<input type="text"/>	Deposits
<input type="text"/>	Customer Deposits
<input type="text"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="text"/>	Money Market Funding
<input type="text"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="text"/>	Other Funding
<input type="text"/>	Other Bonds
<input type="text"/>	Subordinated Debt
<input type="text"/>	Other Funding
	<i>Total Other Funding</i>
<input type="text"/>	Loan Loss and Other Reserves
<input type="text"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="text"/>	Other Liabilities
<input type="text"/>	Other Liabilities
	Total Liabilities
<input type="text"/>	Equity Reserves
<input type="text"/>	Retained Earnings
<input type="text"/>	Other Equity Reserves
<input type="text"/>	Minority Interests
	Total Equity Reserves

### INCOME STATEMENT

<input type="text"/>	Interest Income
<input type="text"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="text"/>	Commision Income
<input type="text"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="text"/>	Net Trading Income
<input type="text"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="text"/>	Personnel Expenses
<input type="text"/>	Other Admin Expenses
<input type="text"/>	Other Operating Expenses
<input type="text"/>	Loan Loss Provisions
<input type="text"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="text"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="text"/>	Capital
<input type="text"/>	Tier 1 Capital Ratio
	Total Capital Ratio

**Based on RB data  
& methodology**

# Anti Money Laundering Law (AML)

## Regulatory solutions have a concrete impact

### Main policy choices

- *“Reduced suspension period”*
- *“Decreased reporting frequency to AML Office from daily to bi-monthly”*
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- *“Introducing the possibility that the compliance officer analyzes the STRs and sends to AML Office only the cases of reasonable suspicion”*
- *“AML Office will provide bi-annual feedback on the results of STRs”*

*Each item  
impacting  
on...*

### Main Balance Sheet and Income Statement items affected

- Personnel costs;
  - Other administrative costs;
- .....

Based on RB data  
& methodology

# Anti Money Laundering Law (AML)

## 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

# Anti Money Laundering Law (AML)

## 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%

Based on RB data  
& methodology

# Anti Money Laundering Law (AML)

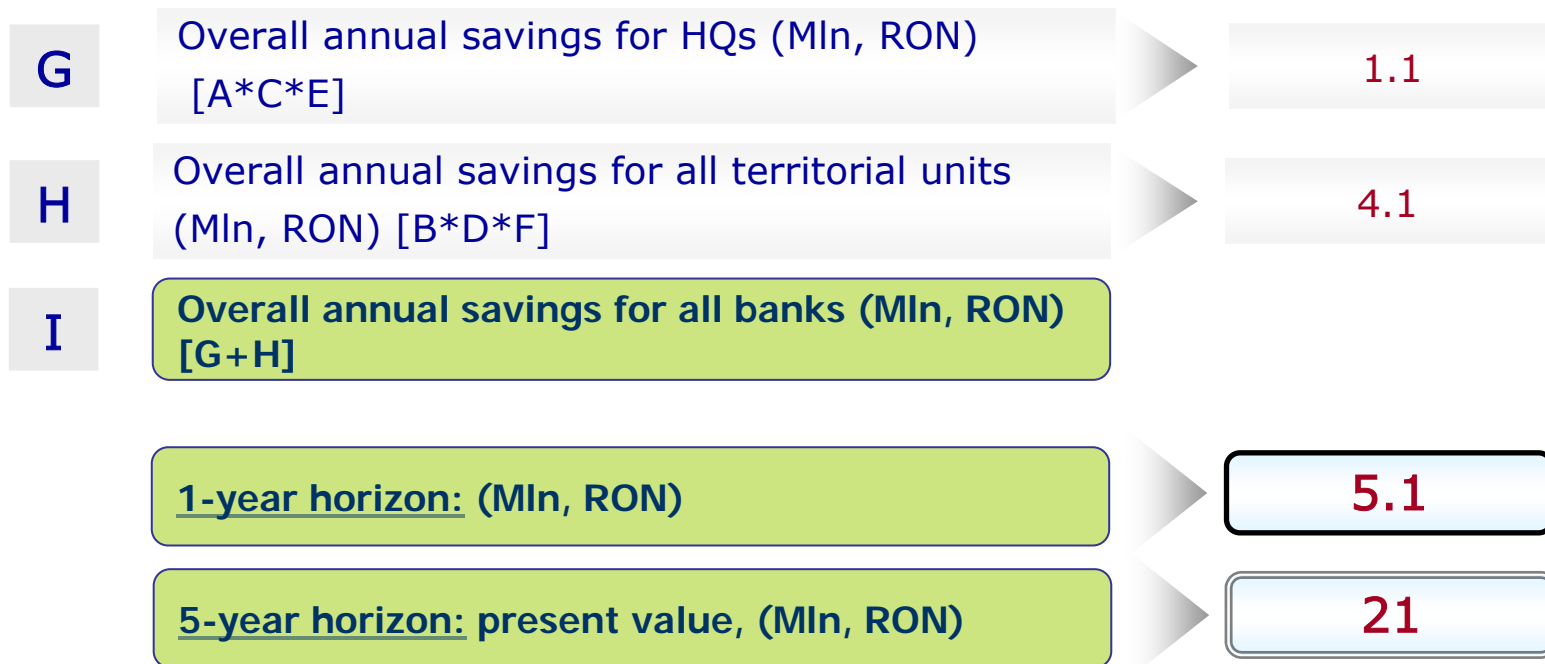
## Economic impact assessment - 1

<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%

Based on RB data  
& methodology

# Anti Money Laundering Law (AML)

## Economic impact assessment - 2



# Rural Lending

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## ***Context***

In Romania, agricultural lending represents a modest share of total bank loans.

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.

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.



# Rural Lending

## Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
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<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
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# Rural Lending

Regulatory solutions have a concrete impact

## Main policy choices

- “Clarify the legal and institutional framework about depositaries and warrant issuance”
  - “Establish the Deposit Certificates Guarantee Fund (DCGF) as an operational institution”
  - “Make deposit certificates for crop inventories (representing bearer negotiable titles) as marketable as possible”
- .....

Each item  
impacting  
on...

## Main Balance Sheet and Income Statement items affected

- ??
  - ??
- .....

# Rural Lending

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="text"/>	Customer Loans
<input type="text"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="text"/>	Problem Loans - memo
	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="text"/>	Other Earning Assets
<input type="text"/>	Due from Other Banks
<input type="text"/>	Other Securities
<input type="text"/>	Investment Securities
<input type="text"/>	Trading Securities
	<i>Total Securities</i>
<input type="text"/>	Equity Investments
	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="text"/>	Cash and Due from Banks
<input type="text"/>	Intangible Assets
<input type="text"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	Total Fixed Assets

#### Liabilities

<input type="text"/>	Deposits
<input type="text"/>	Customer Deposits
<input type="text"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="text"/>	Money Market Funding
<input type="text"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="text"/>	Other Funding
<input type="text"/>	Other Bonds
<input type="text"/>	Subordinated Debt
<input type="text"/>	Other Funding
	<i>Total Other Funding</i>
<input type="text"/>	Loan Loss and Other Reserves
<input type="text"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="text"/>	Other Liabilities
<input type="text"/>	Other Liabilities
	Total Liabilities
<input type="text"/>	Equity Reserves
<input type="text"/>	Retained Earnings
<input type="text"/>	Other Equity Reserves
<input type="text"/>	Minority Interests
	Total Equity Reserves

### INCOME STATEMENT

<input type="text"/>	Interest Income
<input type="text"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="text"/>	Commision Income
<input type="text"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="text"/>	Net Trading Income
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<input type="text"/>	Personnel Expenses
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<input type="text"/>	Loan Loss Provisions
<input type="text"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="text"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="text"/>	Capital
<input type="text"/>	Tier 1 Capital Ratio
	Total Capital Ratio

# Rural Lending

Regulatory solutions have a concrete impact

## *Main policy choices*

- *“Clarify the legal and institutional framework about depositaries and warrant issuance”*
- *“Establish the Deposit Certificates Guarantee Fund (DCGF) as an operational institution”*
- *“Make deposit certificates for crop inventories (representing bearer negotiable titles) as marketable as possible”*

.....

*Each item  
impacting  
on...*

## *Main Balance Sheet and Income Statement items affected*

- New lending;
- Interest income;

.....

# Rural Lending

## 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)	65%
Potential room for annual banking rural credit based on deposit certificates (Mln, RON)	c )=a*b	<b>175.5</b>
Interest rate charged on bank loans backed by deposit certificates (%)	d)	12.0%
Interest rate charged on bank loans backed by deposit certificates (Mln, RON)	e)=c*d	<b>21.06</b>
Mark-up on bank loans (%)	f)	3%
Annual mark-up stemming from potential larger banking rural credit (Mln, RON)	g)=e*f	<b>5.3</b>

		2007	2008	2009	2010	2011	
Potential room for annual banking rural credit based on deposit certificates (Mln, RON)	1)	176	176	176	176	176	
Interest rate charged on bank loans backed by deposit certificates (%)	2)	21	21	21	21	21	
Mark-up on bank loans (%)	3)	3.0%	3.0%	3.0%	3.0%	3.0%	
<b>PV - Potential rural banking lending (Mln, RON)</b>		163.9	153.0	142.9	133.4	124.5	<b>717.7</b>
<b>PV - Potential interest rate on rural lending (Mln, RON)</b>		19.7	18.4	17.1	16.0	14.9	<b>86.1</b>
<b>PV - Potential mark up from rural lending (Mln, RON)</b>		4.9	4.6	4.3	4.0	3.7	<b>21.5</b>

5-years

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

# Rural Lending

## Analytics - 2

### Data and assumptions:

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

b) Lending rate: 12%

c) Mark up of a bank loan: 4%

d) 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**

e) Average loan to value ratio (loans granted/value of deposit certificates) (%) 65%

f) All loans will be granted in RON

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

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

# Rural Lending

## Economic impact assessment - 1

<b>A</b>	Value of crops stored every year (Mln, RON)	270
<b>B</b>	Average loan to value ratio (loans granted/value of crops stored) (%)	65%
<b>C</b>	<b>Annual potential room for banking rural credit based on deposit certificates</b>	
	<b>1-year horizon: (Mln, RON)</b>	<b>175</b>
	<b>5-year horizon: present value, (Mln, RON)</b>	<b>717</b>
<b>D</b>	Interest rate on bank loans backed by deposit certificates (%)	12%
<b>E</b>	Mark-up on bank loans (%)	3%

# Rural Lending

## Economic impact assessment - 2

F

Interest rate charged on bank loans backed by deposit certificates

1-year horizon: (MIn, RON)

21

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

86

G

Mark-up on bank loans

1-year horizon: (MIn, RON)

5

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

21



# Law on Bank Guarantees

## ***Context***

Bank guarantees play an important role in commercial contracts. In Romania, there is no specific law on bank guarantees. The disparate and incomplete legal provisions that have some relevance in addressing the issues pertaining to bank guarantees leave unclear numerous aspects.

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.

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.

# Law on Bank Guarantees

## Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products Labor/borrowed money/equity Source/harmonization Auditing and tax collection
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	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--

# Law on Bank Guarantees

## Regulatory solutions have a concrete impact

### **Main policy choices**

- *“Linkage 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 and any other costs paid and not honored by the principal”*

**Each item  
impacting  
on...**

### **Main Balance Sheet and Income Statement items affected**

- ??
- ??
- ??

.....

# Law on Bank Guarantees

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="checkbox"/>	Customer Loans
<input type="checkbox"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="checkbox"/>	Problem Loans - memo
	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="checkbox"/>	Other Earning Assets
<input type="checkbox"/>	Due from Other Banks
<input type="checkbox"/>	Other Securities
<input type="checkbox"/>	Investment Securities
<input type="checkbox"/>	Trading Securities
	<i>Total Securities</i>
<input type="checkbox"/>	Equity Investments
	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="checkbox"/>	Cash and Due from Banks
<input type="checkbox"/>	Intangible Assets
<input type="checkbox"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	Total Fixed Assets

#### Liabilities

<input type="checkbox"/>	Deposits
<input type="checkbox"/>	Customer Deposits
<input type="checkbox"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="checkbox"/>	Money Market Funding
<input type="checkbox"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="checkbox"/>	Other Funding
<input type="checkbox"/>	Other Bonds
<input type="checkbox"/>	Subordinated Debt
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<input type="checkbox"/>	Other Liabilities
	Total Liabilities
<input type="checkbox"/>	Equity Reserves
<input type="checkbox"/>	Retained Earnings
<input type="checkbox"/>	Other Equity Reserves
<input type="checkbox"/>	Minority Interests
	Total Equity Reserves

### INCOME STATEMENT

<input type="checkbox"/>	Interest Income
<input type="checkbox"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="checkbox"/>	Commision Income
<input type="checkbox"/>	Commision Expense
	<i>Net Commission Revenue</i>
<input type="checkbox"/>	Net Trading Income
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	<i>Total Operating Income</i>
<input type="checkbox"/>	Personnel Expenses
<input type="checkbox"/>	Other Admin Expenses
<input type="checkbox"/>	Other Operating Expenses
<input type="checkbox"/>	Loan Loss Provisions
<input type="checkbox"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="checkbox"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="checkbox"/>	Capital
<input type="checkbox"/>	Tier 1 Capital Ratio
	Total Capital Ratio

# Law on Bank Guarantees

## Regulatory solutions have a concrete impact

### **Main policy choices**

- *“Linkage 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 and any other costs paid and not honored by the principal”*

*Each item  
impacting  
on...*

### **Main Balance Sheet and Income Statement items affected**

- Legal costs;
  - Losses due to operational risk;
  - Commission Income;
- .....

# Law on Bank Guarantees

## Analytics - 1

Commitments to a natural entity or non-bank, legal entity (Mln, RON)	a)	12,887
Incidence of bank letters of guarantee (%)	b)	20%
Exposure at the basis of bank letters of guarantees (Mln, RON)	c)=a*b	2,577
Domestic-regulated bank guarantees based on Romanian law (%)	d)	20%
Amount of bank letters of guarantees regulated by the Romanian law (Mln, RON)	e)=c*d	515
Higher rate of litigation for domestic-based contracts vs foreign-based ones	f)	1.0%
Higher annual amount of bank domestic-based bank guarantees that go to legal disputes (Mln, RON)	g)=e*f	5.2
Cost of enforcing contracts in Romania (% out of the nominal value at stake)	h)	10.7%
Annual cost borne by banks due to drawbacks in Romania framework in enforcing bank guarantees (Mln, RON)	i)=g*h	<b>0.6</b>
Potential annual increase in domestic-regulated bank guarantees as a result of the regulatory improvement (%)	j)	7%
Incremental annual volume (Mln, RON)	k)	36
Average fee charged on letters of guarantee baseed on domestic regulation (%)	l)	1.2%
Incremental annual commissions generated (Mln, RON)	m)=k*l	<b>0.4</b>

# Law on Bank Guarantees

## Analytics - 2

		2007	2008	2009	2010	2011	
Annual cost borne by banks due to drawbacks in Romania framework in enforcing bank guarantees	i)	0.6	0.6	0.6	0.6	0.6	
Potential annual increase in domestic-regulated bank guarantees as a result of the regulatory improvement (%)	ii)	7%	7%	7%	7%	7%	
Gross annual volume (MIn, RON)	iii)=d*(1+ii)	552	590	631	676	723	
Incremental annual volume (MIn, RON)	iv)=iii-d	36	75	116	160	208	
Average fee charged on LGs based on domestic regulation (%)	v)	1.2%	1.2%	1.2%	1.2%	1.2%	
Incremental annual commissions generated (MIn, RON)	vi)-iv*v	0.4	0.9	1.4	1.9	2.5	
<b>PV - Annual cost borne by banks due to drawbacks in Romania framework in enforcing bank guarantees (MIn, RON)</b>		0.5	0.5	0.4	0.4	0.4	<b>2.3</b>
<b>PV - Incremental annual commissions generated (MIn, RON)</b>		0.4	0.8	1.1	1.5	1.8	<b>5.5</b>

5-years

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

## Analytics - 3

### Data and assumptions:

a) Share of LGs in total off-balance sheet exposure	20%
<i>(Based on the evidence from Annual reports of a sample of Romanian Banks)</i>	
b) Guarantees that make reference to Romanian law (%)	20%
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)	7%
e) Average fee charged on letters of guarantee based on domestic regulation (%)	1.2%
<i>(Based on the evidence from some Romanian Banks contracts)</i>	



# Law on Bank Guarantees

## Economic impact assessment - 1

<b>A</b>	Banks' commitments to a natural entity or non-bank, legal entity (Mln, RON) (*)	12,887
<b>B</b>	Share of bank letters of guarantee (%)	20%
<b>C</b>	Exposure at the basis of bank letters of guarantees (Mln, RON) [A*B]	2,577
<b>D</b>	Domestic-regulated bank guarantees (%)	20%
<b>E</b>	Amount of bank letters of guarantees regulated by the Romanian law (Mln, RON) [C*D]	515
<b>F</b>	Higher rate of litigation for domestic-regulated contracts vs foreign-regulated ones (%)	1%

# Law on Bank Guarantees

## Economic impact assessment - 2

G

Differential higher annual amount of bank domestic-regulated bank guarantees that go to legal disputes (Mln, RON) [E\*F]

9

H

Cost of enforcing contracts in Romania (% out of the nominal value at stake) (%) (\*)

10.7%

I

**Cost borne by banks due to drawbacks in Romania framework in enforcing bank Guarantees**

**1-year horizon: (Mln, RON) [A \* B \* df<sup>(1)</sup>]**

0.6

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

2.3

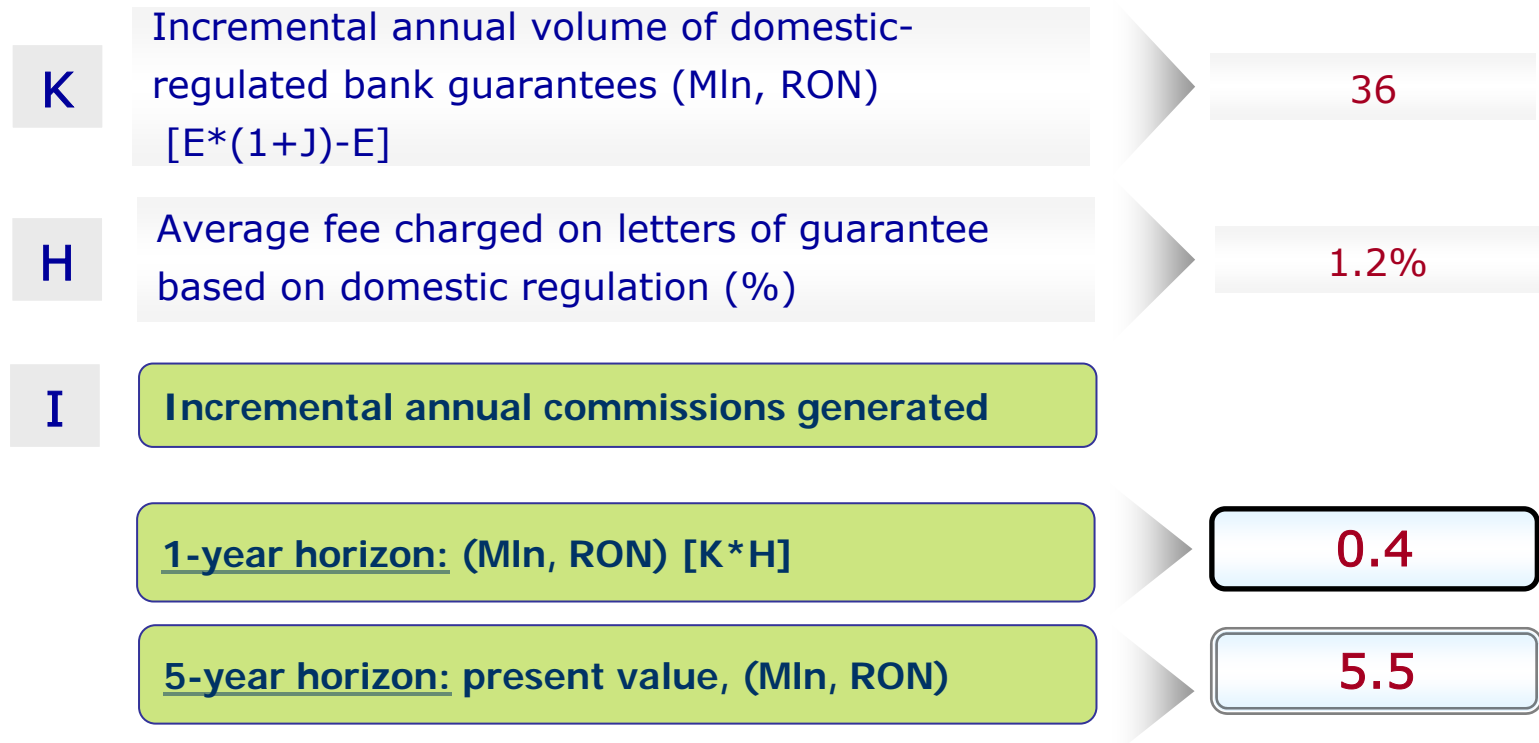
J

Potential annual increase in domestic-regulated bank guarantees as a result of the regulatory improvement (%)

7%

# Law on Bank Guarantees

## Economic impact assessment - 3



## ***Context***

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.

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.

**Based on RB data & methodology**

# Loan Loss Provisioning in View of IFRS Application

Type of Regulatory Optimization

<b>Industry competitiveness</b>	<b>Banking and financial regulation</b>	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting standard - IAS Safety net
	<b>Rule of law and contract enforcement</b>	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	<b>Taxation</b>	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	<b>Labor Market</b>	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

<b>Business development</b>	<b>Financial market infrastructure</b>	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	<b>Financial products/services</b>	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--

**Based on RB data  
& methodology**

# Loan Loss Provisioning in View of IFRS Application

## Regulatory solutions have a concrete impact

### Main policy choices

- *“Compliance and red tape can be streamlined”*
  - *“Provisions are calculated at individual/ portfolio level”*
  - *“Provisions are calculated for exposures classified in X or Y categories”*
- .....

*Each item  
impacting  
on...*

### Main Balance Sheet and Income Statement items affected

- ??
  - ??
  - ??
- .....

**Based on RB data  
& methodology**

# Loan Loss Provisioning in View of IFRS Application

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="text"/>	Customer Loans
<input type="text"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="text"/>	Problem Loans - memo
	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="text"/>	Other Earning Assets
<input type="text"/>	Due from Other Banks
<input type="text"/>	Other Securities
<input type="text"/>	Investment Securities
<input type="text"/>	Trading Securities
	<i>Total Securities</i>
<input type="text"/>	Equity Investments
	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="text"/>	Cash and Due from Banks
<input type="text"/>	Intangible Assets
<input type="text"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	<i>Total Fixed Assets</i>

#### Liabilities

<input type="text"/>	Deposits
<input type="text"/>	Customer Deposits
<input type="text"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="text"/>	Money Market Funding
<input type="text"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="text"/>	Other Funding
<input type="text"/>	Other Bonds
<input type="text"/>	Subordinated Debt
<input type="text"/>	Other Funding
	<i>Total Other Funding</i>
<input type="text"/>	Loan Loss and Other Reserves
<input type="text"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="text"/>	Other Liabilities
<input type="text"/>	Other Liabilities
	<i>Total Liabilities</i>
<input type="text"/>	Equity Reserves
<input type="text"/>	Retained Earnings
<input type="text"/>	Other Equity Reserves
<input type="text"/>	Minority Interests
	<i>Total Equity Reserves</i>

### INCOME STATEMENT

<input type="text"/>	Interest Income
<input type="text"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="text"/>	Commision Income
<input type="text"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="text"/>	Net Trading Income
<input type="text"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="text"/>	Personnel Expenses
<input type="text"/>	Other Admin Expenses
<input type="text"/>	Other Operating Expenses
<input type="text"/>	Loan Loss Provisions
<input type="text"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="text"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="text"/>	Capital
<input type="text"/>	Tier 1 Capital Ratio
	<i>Total Capital Ratio</i>

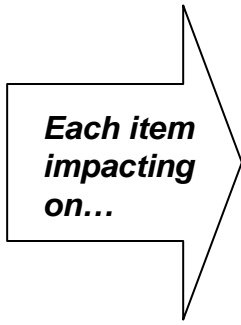
**Based on RB data & methodology**

# Loan Loss Provisioning in View of IFRS Application

## Regulatory solutions have a concrete impact

### Main policy choices

- *“Compliance and red tape can be streamlined”*
  - *“Provisions are calculated at individual/ portfolio level”*
  - *“Provisions are calculated for exposures classified in X or Y categories”*
- .....



### Main Balance Sheet and Income Statement items affected

- Personnel costs;
  - Loan Loss provisions;
  - Tax;
- .....



# Loan Loss Provisioning in View of IFRS Application

## Analytics - 1

*Based on RB data  
& methodology*

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	9.4
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	2.82

### 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	40.4

	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	11.5
<b>PV - Annual accounting edge (Mln, RON)</b>	37.7	35.2	32.9	30.7	28.7	165.1

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

# Loan Loss Provisioning in View of IFRS Application

## 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>	
<b>Compliance perspective</b>	
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%
<b>Tax perspective</b>	
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

## Analytics - 2

*Based on RB data  
& methodology*

Based on RB data  
& methodology

# Loan Loss Provisioning in View of IFRS Application

## Economic impact assessment - 1

### 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%

Based on RB data  
& methodology

# Loan Loss Provisioning in View of IFRS Application

## Economic impact assessment - 2

### ii – Compliance section

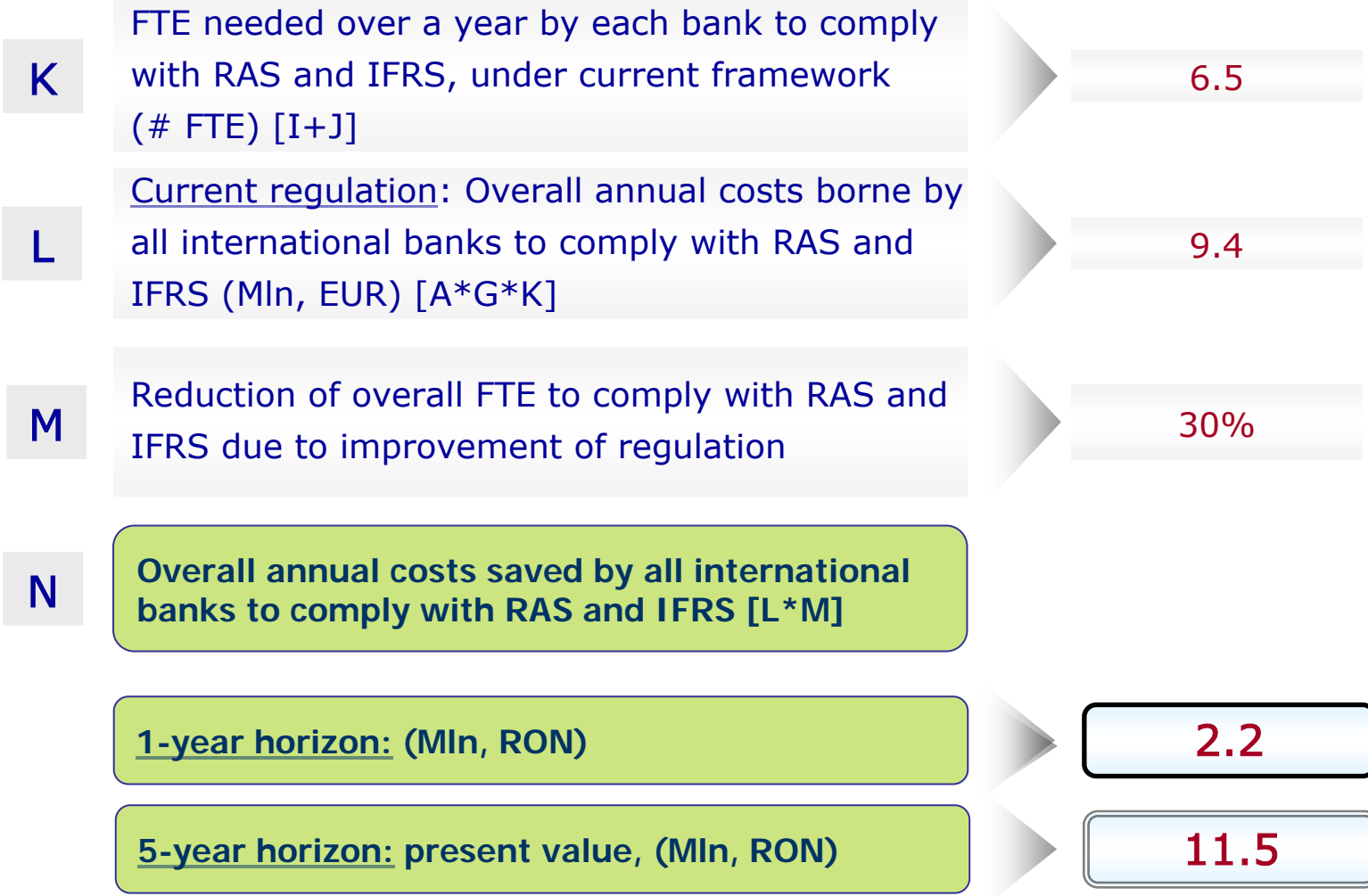
<b>E</b>	Full time Equivalent needed over a year by a RB-sample bank to comply with RAS, under current framework(# FTE)	6.3
<b>F</b>	Full time Equivalent needed over a year by a RB-sample bank to comply with IFRS, under current Framework (# FTE) (*)	1.4
<b>G</b>	Average annual gross salary of a bank staff (RON)	59,840
<b>H</b>	Correction factor to shift from 3-bank sample to all banks involved (%)	-15%
<b>I</b>	FTE needed over a year by each bank to comply with RAS, under current framework (# FTE) [E+(E*H)]	5.4
<b>J</b>	FTE needed over a year by each bank to comply with IFRS, under current framework (# FTE) [F+(F*H)]	1.2

Based on RB data & methodology

# Loan Loss Provisioning in View of IFRS Application

## Economic impact assessment - 3

### ii – Compliance section



Based on RB data  
& methodology

# Loan Loss Provisioning in View of IFRS Application

## 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

# Mortgage Loans Database

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## ***Context***

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%).

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 a specified set of ratios (e.g. default rate and recovery rates for loans secured by mortgages).

# Mortgage Loans Database

Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) <b>Regulation-related risk management activities and databases</b> Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--



# Mortgage Loans Database

Regulatory have a concrete impact

## Main policy choices

- “Which way the database is shaped”;
  - “Number of parameters of the model”;
  - “Time frame for historical data”;
  - “Decrease in the risk weight from 50% to 30% for loans fully secured by mortgages on residential property”;
- .....

Each item  
impacting  
on...

## Main Balance Sheet and Income Statement items affected

- ??
  - ??
  - ??
- .....

# Mortgage Loans Database

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="checkbox"/>	Customer Loans
<input type="checkbox"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="checkbox"/>	Problem Loans - memo
<input type="checkbox"/>	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="checkbox"/>	Other Earning Assets
<input type="checkbox"/>	Due from Other Banks
<input type="checkbox"/>	Other Securities
<input type="checkbox"/>	Investment Securities
<input type="checkbox"/>	Trading Securities
	<i>Total Securities</i>
<input type="checkbox"/>	Equity Investments
<input type="checkbox"/>	Other Investments
	<i>Total Other Earning Assets</i>
<input type="checkbox"/>	Non-Earning Assets
<input type="checkbox"/>	Cash and Due from Banks
<input type="checkbox"/>	Intangible Assets
<input type="checkbox"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
<input type="checkbox"/>	Fixed Assets
	<i>Total Fixed Assets</i>

#### Liabilities

<input type="checkbox"/>	Deposits
<input type="checkbox"/>	Customer Deposits
<input type="checkbox"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="checkbox"/>	Money Market Funding
<input type="checkbox"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="checkbox"/>	Other Funding
<input type="checkbox"/>	Other Bonds
<input type="checkbox"/>	Subordinated Debt
<input type="checkbox"/>	Other Funding
	<i>Total Other Funding</i>
<input type="checkbox"/>	Loan Loss and Other Reserves
<input type="checkbox"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="checkbox"/>	Other Liabilities
<input type="checkbox"/>	Other Liabilities
	<i>Total Liabilities</i>
<input type="checkbox"/>	Equity Reserves
<input type="checkbox"/>	Retained Earnings
<input type="checkbox"/>	Other Equity Reserves
<input type="checkbox"/>	Minority Interests
	<i>Total Equity Reserves</i>

### INCOME STATEMENT

<input type="checkbox"/>	Interest Income
<input type="checkbox"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="checkbox"/>	Commision Income
<input type="checkbox"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="checkbox"/>	Net Trading Income
<input type="checkbox"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="checkbox"/>	Personnel Expenses
<input type="checkbox"/>	Other Admin Expenses
<input type="checkbox"/>	Other Operating Expenses
<input type="checkbox"/>	Loan Loss Provisions
<input type="checkbox"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="checkbox"/>	Taxes
	<i>Post Tax Profit</i>
	<u>Focus:</u>
<input type="checkbox"/>	Capital
<input type="checkbox"/>	Tier 1 Capital Ratio
	Total Capital Ratio

# Mortgage Loans Database

Regulatory have a concrete impact

## *Main policy choices*

- *“Which way the database is shaped”;*
  - *“Number of parameters of the model”;*
  - *“Time frame for historical data”;*  
*“Decrease in the risk weight from 50% to 30% for loans fully secured by mortgages on residential property”;*
- .....

*Each item  
impacting  
on...*

## *Main Balance Sheet and Income Statement items affected*

- Interest income;
  - Lending increase;
  - Capital released;
- .....

# Mortgage Loans Database

## Analytics - 1

Residential	Outstanding loans to households secured with mortgages (Mln, RON)	a)	7,197
	Estimate of the % of item A that will benefit from this risk weighted reduction	b)	50%
	Risk weight reduction (from 50% to 35%)	c)	15%
	Capital requirement (%)	d)	12%
	Free capital [Mln, RON]	e)=a*b*c*d	<b>65</b>
Commercial	Current medium- and long-term loans (Mln, RON)	f)	27,934
	Share of loans backed by commercial property (%)	g)	30%
	Outstanding loans fully secured by mortgages on commercial property (Mln, RON)	h)=f*g	8,380
	Estimate of the % of item H that will benefit from this risk weighted reduction (%)	i)	20%
	Risk weight reduction (from 100% to 50%)	j)	50%
Market development	Free capital [Mln, RON]	k)=d*h*i*j	<b>100.6</b>
	Average pricing of a residential mortgage loan (%)	l)	11.0%
	Average pricing of a commercial mortgage loan (%)	g)	12.6%
	Change in the demand for credit that happens due to change in lending interest rates (%)	h)	<b>(0.1)</b>
	Increase in demand for residential mortgage loans (Mln, RON)	i)	<b>5.9</b>
	Increase in demand for commercial mortgage loans (Mln, RON)	j)	<b>39.9</b>
	Interest income on new residential lending	k)	<b>0.6</b>
Interest income on new commercial lending	l)	<b>4.8</b>	

# Mortgage Loans Database

## Analytics - 2

		2007	2008	2009	2010	2011	5-year NPV
PV - Capital freed due to residential backed mortgages (MIn, RON)	i)	60.5	56.5	52.7	49.2	46.0	264.9
PV - Capital freed due to commercial backed mortgages (MIn, RON)	ii)	93.9	87.7	81.9	76.4	71.4	411.2
PV - Increase in demand for residential mortgage loans (MIn, RON)	iii)	5.5	5.1	4.8	4.5	4.2	24.1
PV - Increase in demand for commercial mortgage loans (MIn, RON)	iv)	37.3	34.8	32.5	30.3	28.3	163.2
PV - Interest income on new residential lending (MIn, RON)	v)	0.6	0.6	0.5	0.5	0.5	2.6
PV - Interest income on new commercial lending (MIn, RON)	vi)	4.5	4.2	3.9	3.6	3.4	19.6

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

# Mortgage Loans Database

## Analytics - 3

### 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 50%
- 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 (%) 30%
- 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 (%) 11.0%  
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 (%) -10%

# Mortgage Loans Database

## Economic impact assessment - 1

### i - Section on residential real estate

<b>A</b>	Outstanding loans to households secured with mortgages (Mln, RON)	7,197
<b>B</b>	Estimate of the % of item A that will benefit from this risk weighted reduction (**)	50%
<b>C</b>	Risk weight reduction (from 50% to 35%)	15%
<b>D</b>	Capital requirement (%)	12%
<b>E</b>	Capital released [A*B*C*D]	
	<u>1-year horizon:</u> (Mln, RON)	65
	<u>5-year horizon:</u> present value, (Mln, RON)	264

# Mortgage Loans Database

## Economic impact assessment - 2

### ii - Section on commercial real estate

<b>F</b>	Current medium- and long-term loans (Mln, RON)	27,934
<b>G</b>	Share of loans backed by commercial property (%)	30%
<b>H</b>	Outstanding loans fully secured by mortgages on commercial property (Mln, RON) [F*G]	8,380
<b>I</b>	Estimate of the % of item H that will benefit from this risk weighted reduction (**)	20%
<b>J</b>	Risk weight reduction (from 100% to 50%)	50%
<b>K</b>	<b>Capital released [H*I*J]</b>	
	<b>1-year horizon: (Mln, RON)</b>	<b>100</b>
	<b>5-year horizon: present value, (Mln, RON)</b>	<b>411</b>



# Mortgage Loans Database

## Economic impact assessment - 3

### iii - Section on market development

L	Average pricing of a residential mortgage loan (%)	▶	11%
M	Average pricing of a commercial mortgage loan (%)	▶	12.6%
N	Reduction of residential mortgage loan pricing as a result of less capital absorbed (p.p.)	▶	0.18 p.p.
O	Reduction of commercial mortgage loan pricing as a result of less capital absorbed (p.p.)	▶	0.6 p.p.
P	Change in the demand for credit that happens due to change in lending interest rates (%)(*)	▶	(0.1)

\*= Shows percentage change in the demand for credit when interest rate changes by one percent

# Mortgage Loans Database

## Economic impact assessment - 4

### iii - Section on market development

Q

Potential increase of demand for residential mortgage loans (Mln, RON)

1-year horizon: (Mln, RON)

6

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

24

R

Potential increase of demand for commercial mortgage loans (Mln, RON)

1-year horizon: (Mln, RON)

40

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

163

Q

Overall interest income (Mln, RON)

1-year horizon: (Mln, RON)

5.4

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

22.2

## ***Context***

Loss Given Default (LGD) is an important credit risk exposure data requirement under Basel II. Thus, a bank using internal LGD estimates might be able to differentiate LGD values on the basis of a wider set of transaction characteristics.

In order to comply with these features of the Basel II framework, the banks should set up a database containing loan-specific data.

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.

# LGD Database

## Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) <b>Regulation-related risk management activities and databases</b> Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--

# LGD Database

Regulatory solutions have a concrete impact

## *Main policy choices*

- “Which way the database is shaped”;
  - “Number of parameters of the model”;
  - “Time frame for historical data”;
- .....

*Each item  
impacting  
on...*

## *Main Balance Sheet and Income Statement items affected*

- ??
  - ??
- .....

# LGD Database

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="checkbox"/>	Customer Loans
<input type="checkbox"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="checkbox"/>	Problem Loans - memo
<input type="checkbox"/>	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="checkbox"/>	Other Earning Assets
<input type="checkbox"/>	Due from Other Banks
<input type="checkbox"/>	Other Securities
<input type="checkbox"/>	Investment Securities
<input type="checkbox"/>	Trading Securities
	<i>Total Securities</i>
<input type="checkbox"/>	Equity Investments
<input type="checkbox"/>	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="checkbox"/>	Cash and Due from Banks
<input type="checkbox"/>	Intangible Assets
<input type="checkbox"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	<i>Total Fixed Assets</i>

#### Liabilities

<input type="checkbox"/>	Deposits
<input type="checkbox"/>	Customer Deposits
<input type="checkbox"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="checkbox"/>	Money Market Funding
<input type="checkbox"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="checkbox"/>	Other Funding
<input type="checkbox"/>	Other Bonds
<input type="checkbox"/>	Subordinated Debt
<input type="checkbox"/>	Other Funding
	<i>Total Other Funding</i>
<input type="checkbox"/>	Loan Loss and Other Reserves
<input type="checkbox"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="checkbox"/>	Other Liabilities
<input type="checkbox"/>	Other Liabilities
	<i>Total Liabilities</i>
<input type="checkbox"/>	Equity Reserves
<input type="checkbox"/>	Retained Earnings
<input type="checkbox"/>	Other Equity Reserves
<input type="checkbox"/>	Minority Interests
	<i>Total Equity Reserves</i>

### INCOME STATEMENT

<input type="checkbox"/>	Interest Income
<input type="checkbox"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="checkbox"/>	Commision Income
<input type="checkbox"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="checkbox"/>	Net Trading Income
<input type="checkbox"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="checkbox"/>	Personnel Expenses
<input type="checkbox"/>	Other Admin Expenses
<input type="checkbox"/>	Other Operating Expenses
<input type="checkbox"/>	Loan Loss Provisions
<input type="checkbox"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="checkbox"/>	Taxes
	<i>Post Tax Profit</i>
	<u>Focus:</u>
<input type="checkbox"/>	Capital
<input type="checkbox"/>	Tier 1 Capital Ratio
	Total Capital Ratio

# LGD Database

## Regulatory solutions have a concrete impact

### *Main policy choices*

- *“Which way the database is shaped”;*
  - *“Number of parameters of the model”;*
  - *“Time frame for historical data”;*
- .....

*Each item  
impacting  
on...*

### *Main Balance Sheet and Income Statement items affected*

- Interest income;
  - Capital released;
- .....

# LGD Database

## 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)	5%
	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>61</b>
	Cost of equity (%)	h)	10%
	Savings in cost of capital (Mln, RON)	$i)=g*h$	<b>6</b>
	Average pricing of a consumer loan (%)	j)	14.4%
Market development	Average pricing of loans to SMEs (%)	k)	14.4%
	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>9</b>
	Increase in demand for loans to SMEs (Mln, RON)	$o)=b*c*m$	<b>4</b>
	Overall demand increase (Mln, RON)	$p)=n+o$	<b>13</b>
	Interest income on new overall lending	q)	<b>2.4</b>



# LGD Database

## Analytics - 2

		2007	2008	2009	2010	2011	5-year NPV
Banks using standard approach measured in terms of share of total assets (%)	i)	5%	25%	50%	80%	80%	
<b>PV - Capital released due to establishment of LGD database (MIn, RON)</b>	$ii)=(a+b)*i*(d-e)*f$	57.2	267.0	498.6	744.9	695.5	<b>2,263</b>
<b>PV - Savings in cost of capital (MIn, RON)</b>	$ii)=ii*h$	5.3	23.3	40.6	56.6	49.4	<b>175</b>
<b>PV - Overall demand increase (MIn, RON)</b>	$iv)=(a+b)*i*m$	12	56	104	155	145	<b>471.5</b>
<b>PV - Interest income on new overall lending (MIn, RON)</b>		2	7	12	17	14	<b>51.5</b>

Discount rate (%) 7.10%

Discount factor 0.933707 0.871808 0.814013 0.76005 0.709664

### Data and assumptions:

a) Banks using standard approach measured in terms of share of total assets (%)

Year	2007	2008	2009	2010	2011
%	5%	25%	50%	80%	80%

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

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

c) 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".

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

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

e) 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

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

g) Percentage of each portfolio that will apply Basel provisions enabling use of LGD database (%) 5%

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

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

j) Cost of equity (%) 10%

## Analytics - 4

k) Average pricing of consumer loans (%)	14.4%
<i>Source: NBR, Monthly Bulletin-Statistical Section, 9/2006, p. 19</i>	
l) Average pricing of loans to SMEs (%)	14.4%
m) 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>	
n) 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>	
o) Estimated interest elasticity(*) of the demand for mortgage loans (%)	-30%

# LGD Database

## 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 (%)	5%
<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%
<b>F</b>	Capital requirement (%)	12%

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

(\*\*)= Basel I

# LGD Database

## Economic impact assessment - 2

### i - Section on capital relief

G

Capital released  $[(A+B) * C * (D-E) * F]$

1-year horizon: (Mln, RON)

61

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

2,940

H

Cost of equity

10%

I

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

1-year horizon: (Mln, RON)

6

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

294

# LGD Database

## 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 (Mln, RON)</b>	
	<b>1-year horizon: (Mln, RON)</b>	<b>13</b>
	<b>5-year horizon: present value, (Mln, RON)</b>	<b>471</b>

## Economic impact assessment - 4

### ii - Section on market development

P

Overall interest income (MIn, RON)

1-year horizon: (MIn, RON)

2.4

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

51.5

# Rating Agencies

---

## ***Context***

Under Basel II, banks are allowed to use credit ratings – for capital requirements purposes - from credit rating agencies (called “ECAIs” - “External Credit Assessment Institutions”) recognised by the competent supervisory authorities.

In Romania most of the local companies cannot afford to be clients of international rating agencies. At present, in Romania there are only three local rating agencies which are not allowed to carry out rating activities due to lack of legislation in this area.



# Rating Agencies

<b>Industry competitiveness</b>	Banking and financial regulation	<b>Prudential Supervision</b> Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

Type of Regulatory Optimization

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
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# Rating Agencies

Regulatory solutions have a concrete impact

## Main policy choices

- *“The establishment of domestic ECAs will allow local companies to get rated and will increase the risk sensitivity of the Basel II framework”;*
  - *“Banks will have the possibility improve the credit risk management and assign lower risk ratings to rated creditworthy borrowers”;*
  - *“Creditworthy borrowers will benefit from increased lending and improved conditions”;*
- .....

*Each item  
impacting  
on...*

## Main Balance Sheet and Income Statement items affected

- ??
  - ??
  - ??
- .....

# Rating Agencies

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="checkbox"/>	Customer Loans
<input type="checkbox"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="checkbox"/>	Problem Loans - memo
<input type="checkbox"/>	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="checkbox"/>	Other Earning Assets
<input type="checkbox"/>	Due from Other Banks
<input type="checkbox"/>	Other Securities
<input type="checkbox"/>	Investment Securities
<input type="checkbox"/>	Trading Securities
	<i>Total Securities</i>
<input type="checkbox"/>	Equity Investments
<input type="checkbox"/>	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="checkbox"/>	Cash and Due from Banks
<input type="checkbox"/>	Intangible Assets
<input type="checkbox"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	<i>Total Fixed Assets</i>

#### Liabilities

<input type="checkbox"/>	Deposits
<input type="checkbox"/>	Customer Deposits
<input type="checkbox"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="checkbox"/>	Money Market Funding
<input type="checkbox"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="checkbox"/>	Other Funding
<input type="checkbox"/>	Other Bonds
<input type="checkbox"/>	Subordinated Debt
<input type="checkbox"/>	Other Funding
	<i>Total Other Funding</i>
<input type="checkbox"/>	Loan Loss and Other Reserves
<input type="checkbox"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="checkbox"/>	Other Liabilities
<input type="checkbox"/>	Other Liabilities
	<i>Total Liabilities</i>
<input type="checkbox"/>	Equity Reserves
<input type="checkbox"/>	Retained Earnings
<input type="checkbox"/>	Other Equity Reserves
<input type="checkbox"/>	Minority Interests
	<i>Total Equity Reserves</i>

### INCOME STATEMENT

<input type="checkbox"/>	Interest Income
<input type="checkbox"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="checkbox"/>	Commision Income
<input type="checkbox"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="checkbox"/>	Net Trading Income
<input type="checkbox"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="checkbox"/>	Personnel Expenses
<input type="checkbox"/>	Other Admin Expenses
<input type="checkbox"/>	Other Operating Expenses
<input type="checkbox"/>	Loan Loss Provisions
<input type="checkbox"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="checkbox"/>	Taxes
	<i>Post Tax Profit</i>
	<u>Focus:</u>
<input type="checkbox"/>	Capital
<input type="checkbox"/>	Tier 1 Capital Ratio
	<i>Total Capital Ratio</i>

# Rating Agencies

Regulatory solutions have a concrete impact

## **Main policy choices**

- *“The establishment of domestic ECAs will allow local companies to get rated and will increase the risk sensitivity of the Basel II framework”*
  - *“Banks will have the possibility improve the credit risk management and assign lower risk ratings to rated creditworthy borrowers”;*
  - *“Creditworthy borrowers will benefit from increased lending and improved conditions”;*
- .....

*Each item  
impacting  
on...*

## **Main Balance Sheet and Income Statement items affected**

- Interest income;
  - Lending increase;
  - Capital released;
- .....

# Rating Agencies

## Analytics - 1

Total non-government credit(September 2006) (Mln, RON)	a)	85,229
Total credit to private companies (%)	b)	59%
Percentage of credit granted to borrowers eligible for being rated by local CRAs (%)	c)	20%
Banks using standard approach measured in terms of share of total assets (%)	d)	95%
Amount of credit granted to borrowers eligible for being rated by local CRAs (Mln, RON)	e)=a*b*c*d	<b>9,554</b>
Percentage of credit granted that would receive a better assessment if rated by local CRAs (%)	f)	10%
Amount of credit granted that would receive a better assessment if rated by local CRAs (%)	g)=e*f	955
Risk weight assigned as unrated credit (%)	h)	100%
Risk weight assigned as rated credit (%)	i)	50%
Capital adequacy ratio (%)	j)	12%
Free Capital (Mln, RON)	k)=g*(h-i)*j	<b>57.3</b>
Estimate of the average standard pricing of a loan to eligible for but unrated companies (%)	l)	12%
st of equity savings in loan pricing due to freeing capital (%)	m)	0.60%
Decrease in pricing due to capital savings (%)	n)	11.4%
% of price reduction	o)	-5%
Change in the demand for credit that happens due to change in lending interest rates	p)	-30.0%
Increase in demand for loans by companies rated by CRAs	q)=e*o*p	<b>143.3</b>
Interest income (%)	r)	11.7%
Net interest margin for legal entities (Mln, RON)	s)=q*r	<b>17</b>

# Rating Agencies

## Analytics - 2

		2007	2008	2009	2010	2011		Annual Average
Banks using standard approach measured in terms of share of total assets (%)	i)	95%	75%	50%	20%	20%		
Amount of credit granted to borrowers eligible for being rated by local CRAs (Mln, RON)	ii)=a*b*c*i*f	9,554	7,543	5,029	2,011	2,011		
<b>PV - Free capital (Mln, RON)</b>	iii)=ii***(h-i)*j	57.3	45.3	30.2	12.1	12.1	<b>156.9</b>	31.4
<b>PV - Savings in cost of equity (Mln, RON)</b>	iv)=iii*COE (10%)	5.7	4.5	3.0	1.2	1.2	<b>15.7</b>	
<b>PV - Increase in demand for loans by companies rated by CRAs (Mln, RON)</b>	v)=ii*o*p	143.3	113.1	75.4	30.2	30.2	<b>392.2</b>	78.4
<b>PV - Interest income (Mln, RON)</b>	vi)=v*r	16.8	13.2	8.8	3.5	3.5	<b>45.9</b>	9.2
								5-years
Discount rate (%)		7.10%						
Discount factor		0.933707	0.871808	0.814013	0.76005	0.709664		

# Rating Agencies

## Analytics - 3

### 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) Total credit to private companies (%) 59%

Source: IMF, Romania: Selected issues and Statistical Appendix.

b) Banks using standard approach measured in terms of share of total assets (%)

Year	2007	2008	2009	2010	2011
%	95%	75%	50%	20%	20%

c) Percentage of credit granted to borrowers eligible for being rated by local CRAs (%) 20%

d) Percentage of credit granted that would receive a better assessment if rated by local CRAs (%) 10%

e) Risk weight assigned as rated credit (%) 50%

f) Cost of equity 10%

g) 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

h) Interest income (%) 11.7%

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

# Rating Agencies

## Economic impact assessment - 1

### i - Section on capital relief

<b>A</b>	Total non-government credit (September 2006) (Mln, RON) (*)	85,229
<b>B</b>	Total credit to private companies	59%
<b>C</b>	Percentage of credit granted to borrowers eligible for being rated by local CRAs (%)	20%
<b>D</b>	Banks using standard approach measured in terms of share of total assets (%)	95%
<b>E</b>	Amount of credit granted to borrowers eligible for being rated by local CRAs (Mln, RON) [A*B*C*D]	9,554
<b>F</b>	Percentage of credit granted that would receive a better assessment if rated by local CRAs (%)	10%



# Rating Agencies

## Economic impact assessment - 2

### i - Section on capital relief

<b>G</b>	Amount of credit granted that would receive a better asses. if rated by local CRAs (%) [E*F]	209
<b>H</b>	Risk weight assigned as unrated credit (%)	100%
<b>I</b>	Risk weight assigned as rated credit (%)	50%
<b>J</b>	Capital adequacy ratio (%)	12%
<b>K</b>	Capital released (Mln, RON) $[G * (H - I) * J]$	57.3
<b>K1</b>	Savings in cost of equity	
	<u>1-year horizon:</u> (Mln, RON)	5.7
	<u>5-year horizon:</u> present value (Mln, RON)	15.7

# Rating Agencies

## Economic impact assessment - 3

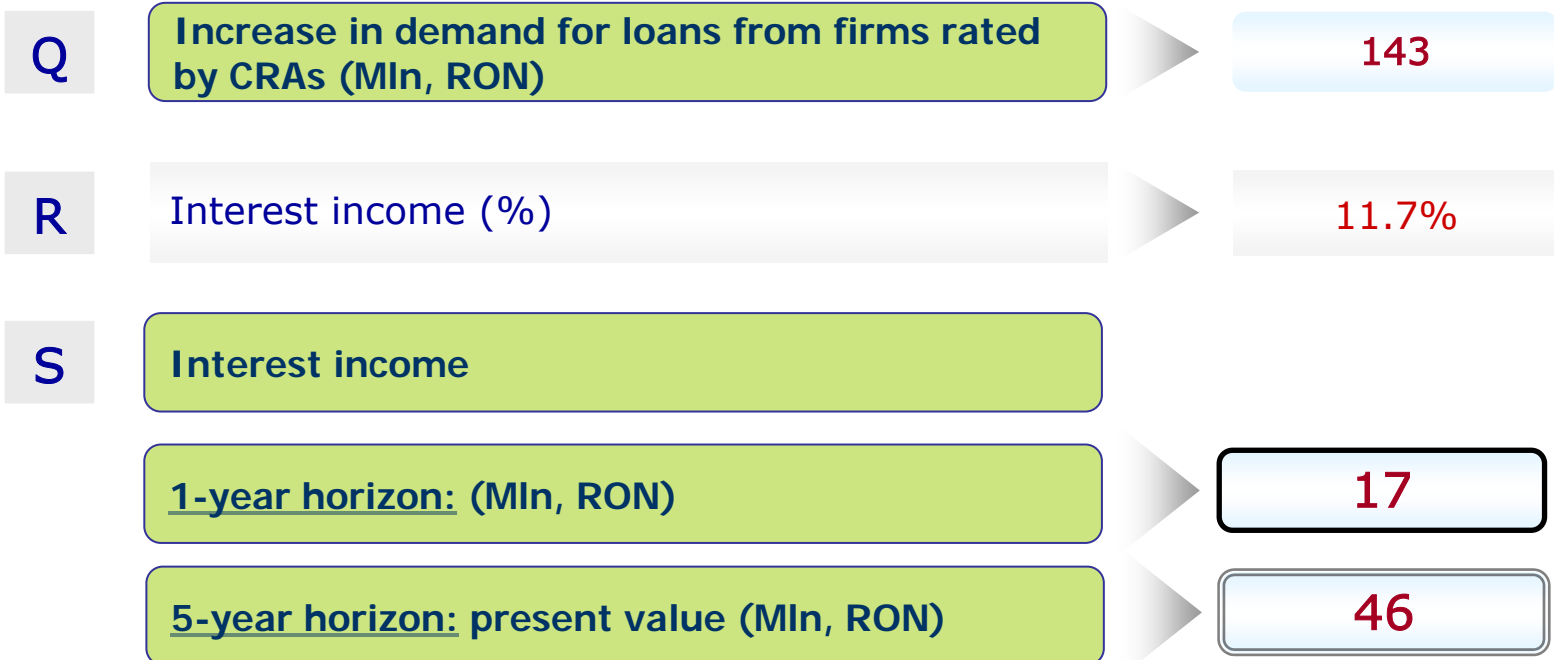
### ii - Section on market development

L	Estimate of the average standard pricing of a loan to companies (%)	12%
M	Cost of equity (%)	10%
N	Cost of equity savings in loan pricing due to freeing capital (%) $[100*(H-I)*L*M]$	0.60%
O	<b>New pricing due to capital savings (%)</b>	<b>11.4%</b>
P	Change in the demand for credit that happens due to change in lending interest rates (%) (*)	(0.3)

# Rating Agencies

## Economic impact assessment - 4

### ii - Section on market development



# Stress Testing

---

## ***Context***

Stress tests permit a forward-looking analysis and a uniform approach to identifying potential risks. System-wide stress tests can complement stress tests conducted by individual institutions, resulting in benefits under several regards (e.g. to identify weaknesses in risk management processes and practices; to increase expertise in risk assessment by supervisors).

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.

# Stress Testing

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

Type of Regulatory Optimization

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--

# Stress Testing

Regulatory solutions have a concrete impact

## Main policy choices

- “Build up a model for the probability of default in case of households”;
  - “Decide on the types of shocks used for stress testing households
  - test the model stability in the case of corporates”;
  - “Test the model under non-linear transmission of shocks through corporate balance sheets and P/Ls in the case of corporates”;
- .....

Each item  
impacting  
on...

## Main Balance Sheet and Income Statement items affected

- ??
  - ??
- .....

# Stress Testing

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="text"/>	Customer Loans
<input type="text"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="text"/>	Problem Loans - memo
	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="text"/>	Other Earning Assets
<input type="text"/>	Due from Other Banks
<input type="text"/>	Other Securities
<input type="text"/>	Investment Securities
<input type="text"/>	Trading Securities
	<i>Total Securities</i>
<input type="text"/>	Equity Investments
	Other Investments
	<i>Total Other Earning Assets</i>
	Non-Earning Assets
<input type="text"/>	Cash and Due from Banks
<input type="text"/>	Intangible Assets
<input type="text"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
	Fixed Assets
	Total Fixed Assets

#### Liabilities

<input type="text"/>	Deposits
<input type="text"/>	Customer Deposits
<input type="text"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="text"/>	Money Market Funding
<input type="text"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="text"/>	Other Funding
<input type="text"/>	Other Bonds
<input type="text"/>	Subordinated Debt
<input type="text"/>	Other Funding
	<i>Total Other Funding</i>
<input type="text"/>	Loan Loss and Other Reserves
<input type="text"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="text"/>	Other Liabilities
<input type="text"/>	Other Liabilities
	Total Liabilities
<input type="text"/>	Equity Reserves
<input type="text"/>	Retained Earnings
<input type="text"/>	Other Equity Reserves
<input type="text"/>	Minority Interests
	Total Equity Reserves

### INCOME STATEMENT

<input type="text"/>	Interest Income
<input type="text"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="text"/>	Commision Income
<input type="text"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="text"/>	Net Trading Income
<input type="text"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="text"/>	Personnel Expenses
<input type="text"/>	Other Admin Expenses
<input type="text"/>	Other Operating Expenses
<input type="text"/>	Loan Loss Provisions
<input type="text"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="text"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="text"/>	Capital
<input type="text"/>	Tier 1 Capital Ratio
	Total Capital Ratio

# Stress Testing

## Regulatory solutions have a concrete impact

### **Main policy choices**

- *“Build up a model for the probability of default in case of households”;*
  - *“Decide on the types of shocks used for stress testing households*
  - *test the model stability in the case of corporates”;*
  - *“Test the model under non-linear transmission of shocks through corporate balance sheets and P/Ls in the case of corporates”;*
- .....

*Each item  
impacting  
on...*

### **Main Balance Sheet and Income Statement items affected**

- Loan loss provisions;
- .....



# Stress Testing

## 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	

# Stress Testing

## 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.*

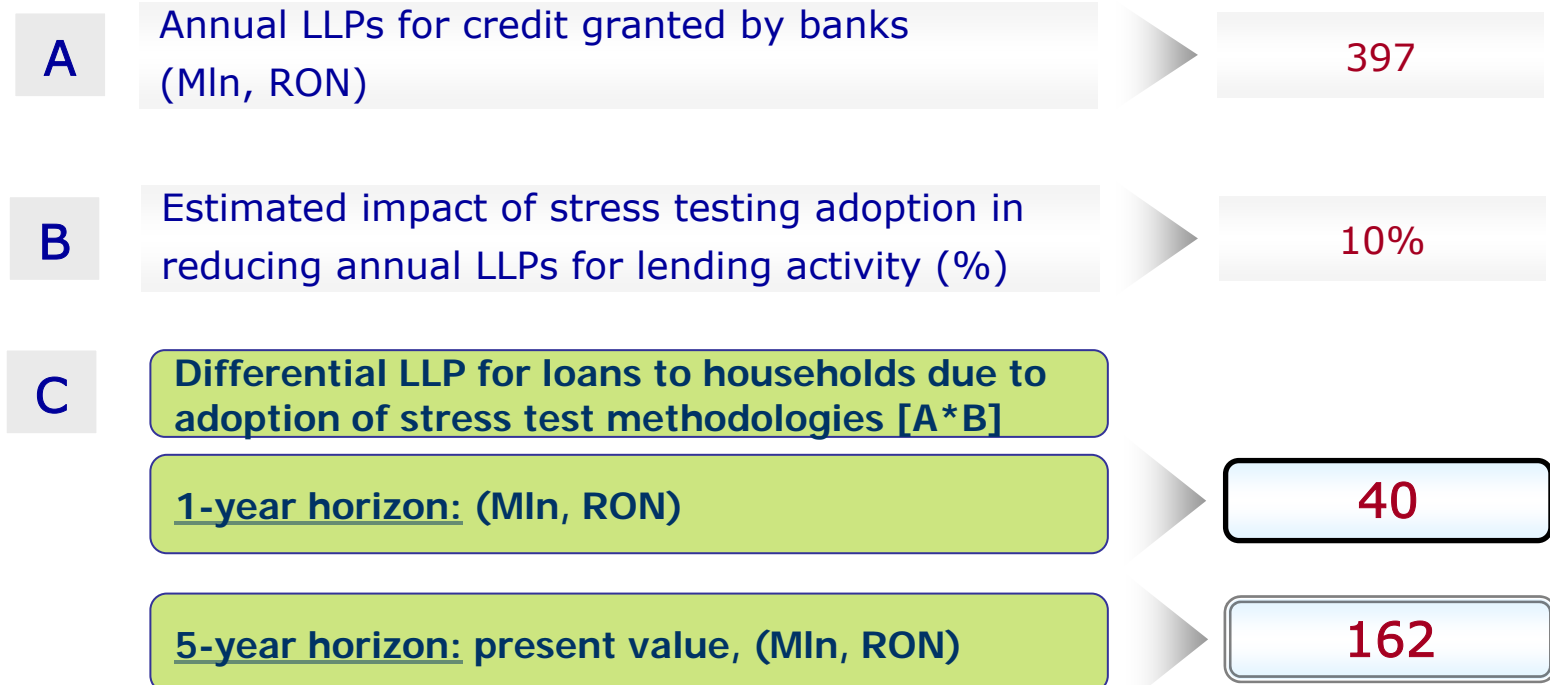
b) Annual amount of LLPs remains steady over next years.

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

# Stress Testing

## Economic impact assessment - 1

This is a static representation of the methodology



# Law on Safety

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## ***Context***

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 (e.g. complicated and lengthy approval procedures, transportation plans for valuables subject to police approval).

In this context, RBA wants to propose amendments to the current law to reduce the cost of compliance to the banking system.

# Law on Safety

## Type of Regulatory Optimization

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting standard - IAS Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products and services Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other social contributions Collective labor contract Any other further integrating labor arrangement Regulation on labor

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--

## Regulatory solutions have a concrete impact

### **Main policy choices**

- *“Allow banks to use risk based analysis in order to determine the requirements, the measures, the means, and the forms of ensuring the safeguard of values and the protection of persons”;*
  - *“Allow for the use of standard projects for the electronic security systems tailored by categories of units of an entity”;*
  - *“The safeguard plans get approved only if the risk based analysis indicates that the safeguard is ensured with dedicated personnel”;*
- .....

**Each item  
impacting  
on...**

### **Main Balance Sheet and Income Statement items affected**

- ??
  - ??
- .....

# Law on Safety

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="text"/>	Customer Loans	<input type="text"/>
<input type="text"/>	Other Loans	<input type="text"/>
	<i>Total Customer Loans</i>	
<input type="text"/>	Problem Loans - memo	
	Other non-performing Loans	
	<i>Total Problem Loans</i>	
	<i>Total Loans - Net</i>	
<input type="text"/>	Other Earning Assets	
<input type="text"/>	Due from Other Banks	
<input type="text"/>	Other Securities	
<input type="text"/>	Investment Securities	
<input type="text"/>	Trading Securities	
	<i>Total Securities</i>	
<input type="text"/>	Equity Investments	
	Other Investments	
	<i>Total Other Earning Assets</i>	
	Non-Earning Assets	
<input type="text"/>	Cash and Due from Banks	
<input type="text"/>	Intangible Assets	
<input type="text"/>	Other Non Earning Assets	
	<i>Total Non Earning Assets</i>	
	Fixed Assets	
	<i>Total Fixed Assets</i>	

#### Liabilities

<input type="text"/>	Deposits	
<input type="text"/>	Customer Deposits	
<input type="text"/>	Banks Deposits	
	<i>Total Deposits</i>	
<input type="text"/>	Money Market Funding	
<input type="text"/>	Other Negotiable Instruments	
	<i>Total Money Market Funding</i>	
<input type="text"/>	Other Funding	
<input type="text"/>	Other Bonds	
<input type="text"/>	Subordinated Debt	
<input type="text"/>	Other Funding	
	<i>Total Other Funding</i>	
<input type="text"/>	Loan Loss and Other Reserves	
<input type="text"/>	Other Non Equity Reserves	
	<i>Total Loan Loss &amp; Other Reserves</i>	
<input type="text"/>	Other Liabilities	
<input type="text"/>	Other Liabilities	
	<i>Total Liabilities</i>	
<input type="text"/>	Equity Reserves	
<input type="text"/>	Retained Earnings	
<input type="text"/>	Other Equity Reserves	
<input type="text"/>	Minority Interests	
	<i>Total Equity Reserves</i>	

### INCOME STATEMENT

<input type="text"/>	Interest Income
<input type="text"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="text"/>	Commision Income
<input type="text"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="text"/>	Net Trading Income
<input type="text"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="text"/>	Personnel Expenses
<input type="text"/>	Other Admin Expenses
<input type="text"/>	Other Operating Expenses
<input type="text"/>	Loan Loss Provisions
<input type="text"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="text"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="text"/>	Capital
<input type="text"/>	Tier 1 Capital Ratio
	Total Capital Ratio

## Regulatory solutions have a concrete impact

### **Main policy choices**

- *“Allow banks to use risk based analysis in order to determine the requirements, the measures, the means, and the forms of ensuring the safeguard of values and the protection of persons”;*
  - *“Allow for the use of standard projects for the electronic security systems tailored by categories of units of an entity”;*
  - *“The safeguard plans get approved only if the risk based analysis indicates that the safeguard is ensured with dedicated personnel”;*
- .....

**Each item  
impacting  
on...**

### **Main Balance Sheet and Income Statement items affected**

- Personnel costs;
  - Other administrative costs;
- .....



# Law on Safety

## 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	7.2
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)	1.5

		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

# Law on Safety

## Economic impact assessment - 1

<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

# Law on Safety

## Economic impact assessment - 2

<b>F</b>	Costs of complying with police approval for transportation plans [A*B*D*E]	
	<u>1-year horizon:</u> (Mln, RON)	7.2
	<u>5-year horizon:</u> present value, (Mln, RON)	29.3
<b>G</b>	Average number of records/tapes for 1 working day of non-stop video	1
<b>H</b>	Number of records/tapes needed every year (*)	264
<b>I</b>	Rate of positive records over a month (%)	2%
<b>J</b>	Unitary cost of each negative record (opportunity cost + storing cost) (RON)	1.5

(\*)= Working days

## Economic impact assessment - 3

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

# Ombudsman (draft)

---

## ***Context***

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.

Most European countries have established successful Banking Ombudsman schemes in the past 30 years, either financed by banks or set up as external organizations.

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

# Ombudsman (draft)

<b>Industry competitiveness</b>	Banking and financial regulation	Prudential Supervision Banking compliance with National Central Bank (included transparency, accounting & reporting) Regulation-related risk management activities and databases Balance sheet, accounting principles and international accounting Safety net
	Rule of law and contract enforcement	Civil, penal and administrative regulation affecting banking activity Corporate law Insolvency law and foreclosures
	Taxation	Banks and financial intermediaries Financial activities/banking products Labor/borrowed money/equity Source/harmonization Auditing and tax collection
	Labor Market	Unemployment Fund and other Collective labor contract Any other further integrating labor Regulation on labor

<b>Business development</b>	Financial market infrastructure	Payment systems Public/private credit registries Primary/Secondary Markets Trading and post-trading services Investment banking Stock Exchange
	Financial products/services	Corporate lending Retail lending Other lending Payment products/services Asset management Investment banking

<b>Industry reputation</b>	Market confidence (negative externality, market power) Consumer protection (information asymmetry, market power) Public awareness (positive externality)
----------------------------	--

# Ombudsman (draft)

Regulatory solutions have a concrete impact

## Main policy choices

- “Which complaints are eligible”;
  - “Maximum amount for a complaint”;
  - “Ombudsman as a first/appeal court”;
  - “Which cost each complain does entail”;
- .....

Each item  
impacting  
on...

## Main Balance Sheet and Income Statement items affected

- ??
  - ??
  - ??
  - ??
- .....



# Ombudsman (draft)

## Balance Sheet and Income Statement items affected

### BALANCE SHEET

#### Assets

<input type="checkbox"/>	Customer Loans
<input type="checkbox"/>	Other Loans
	<i>Total Customer Loans</i>
<input type="checkbox"/>	Problem Loans - memo
<input type="checkbox"/>	Other non-performing Loans
	<i>Total Problem Loans</i>
	<i>Total Loans - Net</i>
<input type="checkbox"/>	Other Earning Assets
<input type="checkbox"/>	Due from Other Banks
<input type="checkbox"/>	Other Securities
<input type="checkbox"/>	Investment Securities
<input type="checkbox"/>	Trading Securities
	<i>Total Securities</i>
<input type="checkbox"/>	Equity Investments
<input type="checkbox"/>	Other Investments
	<i>Total Other Earning Assets</i>
<input type="checkbox"/>	Non-Earning Assets
<input type="checkbox"/>	Cash and Due from Banks
<input type="checkbox"/>	Intangible Assets
<input type="checkbox"/>	Other Non Earning Assets
	<i>Total Non Earning Assets</i>
<input type="checkbox"/>	Fixed Assets
<input type="checkbox"/>	Total Fixed Assets

#### Liabilities

<input type="checkbox"/>	Deposits
<input type="checkbox"/>	Customer Deposits
<input type="checkbox"/>	Banks Deposits
	<i>Total Deposits</i>
<input type="checkbox"/>	Money Market Funding
<input type="checkbox"/>	Other Negotiable Instruments
	<i>Total Money Market Funding</i>
<input type="checkbox"/>	Other Funding
<input type="checkbox"/>	Other Bonds
<input type="checkbox"/>	Subordinated Debt
<input type="checkbox"/>	Other Funding
	<i>Total Other Funding</i>
<input type="checkbox"/>	Loan Loss and Other Reserves
<input type="checkbox"/>	Other Non Equity Reserves
	<i>Total Loan Loss &amp; Other Reserves</i>
<input type="checkbox"/>	Other Liabilities
<input type="checkbox"/>	Other Liabilities
	<i>Total Liabilities</i>
<input type="checkbox"/>	Equity Reserves
<input type="checkbox"/>	Retained Earnings
<input type="checkbox"/>	Other Equity Reserves
<input type="checkbox"/>	Minority Interests
	<i>Total Equity Reserves</i>

### INCOME STATEMENT

<input type="checkbox"/>	Interest Income
<input type="checkbox"/>	Interest Expense
	<i>Net Interest Revenue</i>
<input type="checkbox"/>	Commision Income
<input type="checkbox"/>	Commision Expense
	<i>Net Commision Revenue</i>
<input type="checkbox"/>	Net Trading Income
<input type="checkbox"/>	Other Operating Income
	<i>Total Operating Income</i>
<input type="checkbox"/>	Personnel Expenses
<input type="checkbox"/>	Other Admin Expenses
<input type="checkbox"/>	Other Operating Expenses
<input type="checkbox"/>	Loan Loss Provisions
<input type="checkbox"/>	Other Provisions
	<i>Total Operating Expense</i>
	<i>Non-Operating Income</i>
	<i>Pre-Tax Profit</i>
<input type="checkbox"/>	Taxes
	<i>Post Tax Profit</i>

#### Focus:

<input type="checkbox"/>	Capital
<input type="checkbox"/>	Tier 1 Capital Ratio
<input type="checkbox"/>	Total Capital Ratio

# Ombudsman (draft)

## Regulatory solutions have a concrete impact

### *Main policy choices*

- *“Which complaints are eligible”;*
  - *“Maximum amount for a complaint”;*
  - *“Ombudsman as a first/appeal court”;*
  - *“Which cost each complain does entail”;*
- .....

*Each item  
impacting  
on...*

### *Main Balance Sheet and Income Statement items affected*

- Interest expense;
  - Interest income;
  - Customer deposits;
  - Customer loans;
- .....

# Ombudsman (draft)

## Analytics - 1

		2007	2008	2009	2010	2011	
Outstanding households deposits (Mln, RON)	i)	23,130	23,130	23,130	23,130	23,130	
Deposits inflow as a result of higher industry reputation due to Bank Ombudsman (%)	ii)	0.10%	0.20%	0.50%	0.70%	1.00%	
Deposits inflow as a result of higher industry reputation due to Bank Ombudsman (Mln, RON)	iii)=i*ii	23	46	116	162	231	
Loan/deposit multiplier for households	iv)	1.1	1.1	1.1	1.1	1.1	
New flow of loans as a result of new deposits from households (Mln, RON)	v)=iii*iv	<b>25</b>	51	127	178	254	<b>636</b>
Net interest margin (%)	vi)	7.3%	6.9%	6.5%	6.1%	5.7%	
Net interest margin from new loans (Mln, RON)	vii)=v*vi	<b>1.9</b>	3.5	8.2	10.8	14.5	<b>39</b>
<b>PV - New flow of loans as a result of new deposits from households (Mln, RON)</b>		<b>24</b>	<b>44</b>	<b>104</b>	<b>135</b>	<b>181</b>	<b>488</b>
<b>PV - Net interest margin from new loans (Mln, RON)</b>		<b>2</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>10</b>	<b>30</b>
							5-years
	Discount rate (%)	7.10%					
	Discount factor	0.9337068	0.871808	0.814013	0.76005	0.709664	

# Ombudsman (draft)

## Analytics - 2

### Data and assumptions:

a) Households

Deposits in lei (Mln, RON)

Demand deposits	5,967	
Time deposits	17,163	
	<u>23,130</u>	i)

Loans in lei (Mln, RON)

Consumer loans	29,190	
Real-estate/mortgage	7,539	
	<u>36,729</u>	ii)

1.59

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

b) Every RON deposited by households generates RON 1.6 of loans (ii/i)

c) To be more conservative, let the multiplier be 1.1

d) net margin yielded by the banking industry for new funds 7.3%

intermediated (%)

Source: NBR, *Monthly Bulletin - Statistical section, 10/2006, p. 22*

year	2007	2008	2009	2010	2011
%	7.3%	6.9%	6.5%	6.1%	5.7%

e) Deposits inflow as a result of higher industry reputation due to Bank Ombudsman (%)

year	2007	2008	2009	2010	2011
%	0.10%	0.20%	0.50%	0.70%	1.00%

f) Banking Ombudsman budget

(Mln, EUR)	0.25
(Mln, RON)	0.88

Source: *Convergence, Establishing a Bank Ombudsman in Romania*, November 2006, Annex 8

## Ombudsman (draft)

# Economic impact assessment - 1

<b>A</b>	Outstanding households deposits (Mln, RON)	23,130
<b>B</b>	Deposits inflow as a result of higher industry reputation due to Bank Ombudsman (%)	0.10%
<b>C</b>	Deposits inflow as a result of higher industry reputation due to Bank Ombudsman (Mln, RON) [A*B]	23
<b>D</b>	Loan/deposit multiplier for households	1.1
<b>E</b>	New flow of loans as a result of new deposits from households (Mln, RON) [C*D]	25

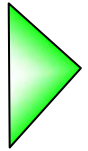
# Ombudsman (draft)

## Economic impact assessment - 2

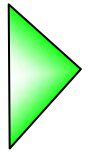
F	Net interest margin (%)	7.3%
G	Annual lending increase as a result of higher reputation from the Bank Ombudsman establishment	
	<u>1-year horizon:</u> (Mln, RON)	25
	<u>5-year horizon:</u> present value (Mln, RON)	488
H	Net interest margin	
	<u>1-year horizon:</u> (Mln, RON)	1.9
	<u>5-year horizon:</u> present value (Mln, RON)	30
I	Annual cost for a Bank Ombudsman (Mln, RON)	0.9

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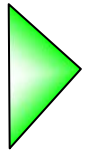
## **III. Concluding remarks**



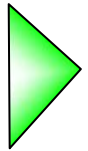
**Impact assessment techniques are a suitable tool helping policy-making process towards better regulation;**



**RIA as a high value-adding instrument at disposal of SPI Project Managers to run more effectively WGs;**



**Regulatory options discussed within each Project Working Group can be appraised better in terms of concrete potential impacts on Romania banking industry;**



**A RIA Working Group is active.**