Current Approaches to the Establishment of Credit Risk Specific Provisions

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Abstract. *The aim of the new Basel II and IFRS approaches is to make the operations of financial institutions more transparent and thus to create a better basis for the market participants and supervisory authorities to acquire information and make decisions. In the banking sector, a continuous debate is being led, related to the similarities and differences between IFRS approach on loan loss provisions and Basel II approach on calculating the capital requirements, judging against the classical method regarding loan provisions, currently used by the Romanian banks following the Central Bank's regulations.*

Banks must take into consideration that IFRS and Basel II objectives are fundamentally different. While IFRS aims to ensure that the financial papers reflect adequately the losses recorded at each balance sheet date, the Basel II objective is to ensure that the bank has enough provisions or capital in order to face expected losses in the next 12 months and eventual unexpected losses.

Consequently, there are clear differences between the objectives of the two models. Basel II works on statistical modeling of expected losses while IFRS, although allowing statistical models, requires a trigger event to have occurred before they can be used. IAS 39 specifically states that losses that are expected as a result of future events, no matter how likely, are not recognized. This is a clear and fundamental area of difference between the two frameworks.

Key words: IFRS; Basel II; Basel II targets; provision; depreciation loss; expected/unexpected loss; historical loss; depreciation indexes; significance threshold.

JEL Codes: 11C.
REL Codes: G21, G32.

1. Provisions policy for potential loss due to credits

According to the traditional approach to credit risk, its management includes as major objective the laying down of a correct crediting policy to secure the selection of secure credits with a maximum repayment probability as the credits corresponding to the needs of the market where the bank operates are extended.

The foundation of a healthy credit risk management consists in the capacity of the credit risk management policies to identify the existent and potential risks, inherent to any crediting activity, and to limit or reduce them. Thus, within the classic credit risk management policies, essential are those aiming at classifying the bank's assets (implicitly the credit portfolio) and to establish specific credit risk provisions[1]:

- *Assets classification policies* include the procedures by means of which each asset is assigned a degree of risk depending on the probability of the credit nonpayment, in accordance with the contracting clauses. In practice, credit classification is an essential instrument of the credit risk management, and it is usually determined by the regulatory authorities. If credits in the standard loss categories represent 50% of the bank's capital, the respective bank is regarded by the supervision authority as a problem-bank, as there is a high probability that the bank's solvency and profitability should be affected. In the banking systems in highly developed countries, banks usually use several classification levels for the credits in the "standard" category in order to improve the quality of the credit analysis, with direct impact on the profitability – classification level relation.

Provisions policy for potential loss due to credits, along with the general reserves established for losses, shows the bank's capacity to absorb them. In order to determine their adequate level, there shall be taken into account all the factors affecting the credit repayment possibility, as well as the quality of the credit policies and procedures, previous losses which affected the bank's profitability, the dynamics of the granted credits, the problem credits collection and recovery procedures, macroeconomic variables volatility and economic trends.

In practice, provisions establishment policies can be discretionary or mandatory, depending on the characteristics of each banking system, and from the accounting point of view, they are regarded by most of the economists as a category of expenses. There are two practices used in the provisions determination: countries which have a developed banking system and which give the banks the freedom to establish by themselves a prudent level for provisions and countries that have fragile banking system and where the supervision authorities impose compulsory levels for provisions in relation with the risk class of the granted credit.

Table 1 shows the provisions recommended by the Basel Committee which might represent guidelines for the level of provisions in the countries with a less stable banking system:

Level of provisions recommended by the Basel Committee to countries with fragile banking systems

Table 1

Class	Recommended provisions	Category
Standard	1%-2%	Level 2 general reserves for losses, if presented
Supervision	5%-10%	Specific provisions
Substandard	10%-30%	Specific provisions
Doubtful	50%-75%	Specific provisions
Loss	100%	Specific provisions

The current methodology for the assessment and registration of provisions for losses due to the credit depreciation, developed depending on the statutory prudential requirements of the National Bank, shall be supplemented by the development of a detailed and comprehensive rating, based on the IAS 39 principle and on the Basel II recommendations.

The implementation of such a methodology shall require significant changes within each bank, not only at the level of IT systems but at the level of the credit risk management function and of the financial control and budgeting processes. Moreover, the transition to the new credit depreciation losses assessment rating according to IFRS shall be coordinated with the implementation of the Basel II recommendations.

2. Basel II approach vs. IFRS approach

In the banking sector there is a continuous debate regarding the similarities and differences between the IFRS[2] approach to the credit depreciation provisions and the Basel II approach regarding the calculation of the minimum capital requirements.

Although many of the requirements and, therefore, of the data used as source for analysis are common to both approaches, banks shall take into account the fact that the objectives of IFRS and Basel II are fundamentally different. The IFRS objective is to secure that financial statements adequately reflect the losses found upon the date of each balance sheet, while the Basel II objective is to secure that the bank has sufficient provisions or capital to cope with the losses expected during the next 12 months[3] and the potential unforeseen loses.

IFRS is a rating based on the analysis of the historical losses while Basel II is based on the expected and unexpected losses.

2.1. Expected and unexpected losses

The decision of the Basel Committee on Banking Supervision to give up the taking into account of the expected losses in the Internal Rating approach[4] has been induced by the conviction that provisions should reflect expected credit losses, while the capital should reflect, in principal, any unexpected loss that might occur.

The provisions calculated according to IFRS strictly refer to the historical losses (already occurred), and it is highly unlikely they should be one with the expected losses. As the Basel Committee considers the capital covers in principal only the unexpected credit losses, there is the risk of a deficit[5] between the occurred losses and the expected losses, which are not covered by any accounting provisions or by the capital.

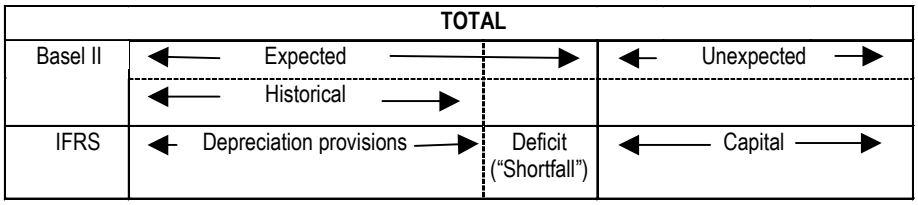

Figure 1. *Provisions calculated according IFRS and Basel II*

Thus, banks shall compare the expected loss calculated according to Basel II with the total level of the established provisions. Any deficit (existing when the expected loss exceeds the provisions) shall be deducted from the capital.

The reviewed IAS 39 standard, issued by the International Accounting Standard Board (IASB) in December 2003, clarified differences between the "historical losses" and the "expected losses" concepts. IAS 39 clearly specifies that the provisioning rating to which it refers is a historical losses - based rating, although it allows for the depreciation provisions to be analyzed based on the credit portfolios supplying data that show that a depreciation of the future income flows at the time of their acknowledgment.

The standard provides two examples of causes determining this deterioration:

- changes in the local or national economic environment;
- changes in the debtors' condition (non-refund risk).

A historical loss found upon the balance sheet date is defined by the existence of an event triggering the depreciation loss[6], event that already occurred, while an expected loss is an anticipated loss, regardless whether the triggering event occurred or not until the balance sheet date. Thus, if upon the balance sheet date, a bank expects a certain triggering event to occur (for example, an increase in the unemployment rate), it shall include the consequences of this event (namely, a loss increase) in an expected losses rating and not in a historical looses-based rating.

Basel II uses statistical ratings for expected losses while IFRS, although allowing for statistical ratings, requires that a triggering event should have occurred before it is taken into account.

IAS 30 clearly specifies that the losses arising from future events are not acknowledged. This is a fundamental difference between the two approaches.

2.2. Similarities and differences between Basel II and IAS 39

In order to detail upon the differences between the Basel II approach and the IAS 39 approach, it is necessary to define "loss" in the Basel II rating and "depreciation" in the IFRS rating.

Table 2

Definition of "loss" in the Basel II rating	Depreciations indicators in the IFRS rating
It is determined that the debtor cannot pay in full the debts (principal, interests, commissions).	The existence of objective depreciation signs as a result of one or several events occurring after the initial acknowledgment of the asset ("loss event") and the existence of an impact of these events on the future estimated income flows of the asset .
Any credit loss related to any obligation of the debtor such as: debit registration in the off-balance records, establishment of credit risk specific provisions or credit restructuring (may imply the maturity date setting, the rescheduling of the loan).	The granting of a concession to the debtor regarding the conditions stipulated in the credit agreement.
The debtor registers a debt service exceeding 90 days.	The non-compliance with the contractual conditions (e.g.: nonpayment of an overdue installment)
Initiation of the bankruptcy procedures.	Significant financial difficulties of the debtor or the bankruptcy probability or other forms of financial restructuring of the debtor.
There are no changes in the economic conditions, as triggering event, but specific scenarios need to be determined.	Data showing a quantifiable decrease in the estimated income flows of a group of assets, as of their initial acknowledgment, due to: - adverse changes in the debtor's payer condition - deteriorations of the local or national economic conditions correlated to the depreciation of the analyzed assets.

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There are no changes in the economic conditions, as triggering event, but specific scenarios need to be determined. Data showing a quantifiable decrease in the estimated income flows of a group of assets, as of their initial acknowledgment, due to:

- adverse changes in the debtor's payer condition
- deteriorations of the local or national economic conditions correlated to the depreciation of the analyzed assets.

From Table 2 it results that the significant difference between the two definitions refers to the timing. Basel II defines loss when the debtor registers a debt service exceeding 90 days, while IFRS refers to the noncompliance with the contractual conditions (nonpayment of credit installments). The IFRS approach

seems to be more conservative, but, in fact, Basel II takes into consideration all the losses likely to occur during the next 12 months while IFRS acknowledges only the losses found until the date of the balance sheet.

IFRS also allows for the consideration of unfavorable economic circumstances as triggering element for the loss of a group of assets. Thus, banks need to define what they regard as economic phenomena with an impact both on their loss rates and on the probability that their clients incur losses. These phenomena may include economic factors such as interest rate, unemployment level, consumption prices level.

The differences between the Basel II and IFRS ratings in the loss analysis and, thus, in the determination of the credit risk specific provisions include the time when an asset is regarded as a loss (it presents depreciations signs), or the specific elements triggering the "loss". Within Basel II, the loss is defined as an economic loss and it shall include the direct and indirect costs associated to the exposure recovery. Within IFRS, a depreciation loss is defined as the difference between the bookkeeping value and the current value of the future cash flows, updated with the actual interest rate.

Despite these differences, there is similitude as well between the two ratings. For example, both approaches refer to the taking into account of the collateral (guarantee) when the loss is estimated.

At first sight, it seems that the Basel II approach requires data on losses, while the data required by IFRS refer to the income flows. However, income flows not obtained (within the depreciation loss – IFRS) are similar to the loss defined by Basel II. Thus, a rating based on income flows expected not to be obtained shall be comparable to a rating based on the income flows still expected to be obtained.

To conclude, the IFRS rating based on historical losses can be condensed as the expected loss of a credit or credit portfolio as a result of a triggering event already occurred. Although it might seem that the database used for Basel II can be used for the determination of the depreciation provisions within the IFRS rating, with the support of specific adjustments and subsequent analyses, the costs necessary for these adjustments might be substantial. However, the cost for the IFRS implementation independently from Basel II might be much higher.

3. Methodology for the calculation of credit risk provisions, according to IAS 39

3.1. IAS 39 Principles

On January 1, 2005, the reviewed version of the International Accounting Standard IAS 39 – Financial Instruments: Acknowledgment and Measurement, issued by the International Accounting Standards Committee in December 2003, became effective. This standard is applicable to all the entities that draw up and publish financial statements compliant with IFRS for the financial exercises beginning as of January 1, 2005 or following this date.

This reviewed version of the standard brings significant amendments with regards to the methodology for the assessment of the *losses from the depreciation*[7] of the financial assets measured at written-off cost, therefore including the banks' credit portfolios.

Following a historical analysis, the bank assesses the existence of portfolio depreciation signs, as a result of all the past events, and whether these events have an impact on the future estimated cash flows, related to the analyzed portfolio. The combined influence of a series of events having caused the depreciation[8] can be found.

In case objective signs of depreciation of the credits measured at written-off cost are found, the related depreciation loss is calculated as follows:

Depreciation loss = accounting value of the credit – recovery value (current value of the future cash flows, updated with the initial actual interest rate of the credit[9]).

Thus, according to this standard, the credit depreciation provisions shall be recorded only when there are signs that the respective assets are written-off as a consequence of a past event. The depreciation signs the reviewed Standard refers to are:

- Financial difficulties of the debtor.
- Non-compliance with the contractual conditions (e.g.: delays in the payment of the principal or of the interest).
- Concessions granted to the debtor by the bank due to financial difficulties of the debtor (e.g.: rescheduling, new repayment spread-out of the credit).
- Probability of initiating the bankruptcy or judicial restructuring procedures.
- Registration of a *depreciation loss* during a previous time interval.

The bank estimates the influence of the depreciation signs on the credit portfolios, by individually analyzing the significant individual credits and individually or collectively the insignificant credits. In this respect, there shall be determined a *significance threshold* delimiting the credit portfolio, the provision being individually assessed for each credit whose exposure on the assessment date exceeds this threshold. For those credits below this significance threshold the bank shall carry out a collective analysis.

The reviewed standard requires that those credits for which no depreciation losses have been identified at individual level (including those exceeding the significance threshold) should be subjected to a collective approach. In this regard, credits are grouped in portfolios with similar credit characteristics, relevant for the debtor's capacity to reimburse the debts according to the contractual provisions (e.g.: depending on the geographical area, the type of credit, debt service, the kind of guarantees).

The future cash flows related to the assets groups with similar credit risk characteristics shall be estimated depending on the historical loss rates determined at the level of each group, adjusted depending on the economic conditions and on the characteristics of the credit portfolio existing on the assessment date.

3.2. Steps in the provisions determination according to IAS 39 approach

Step 1 – Determination of the significance threshold	
This significance threshold is determined in view of delimiting the individually significant credits. It can be expressed, for example, as a percentage of the gross profit or as a percentage of the total assets. All the credits exceeding this threshold shall be tested individually for depreciation.	Setting the calculation basis for the significance threshold; Calculation of the significance threshold; Identification of individually significant credits (credits that on a certain date of the balance sheet exceed the set significance threshold).

Step 2 – Definition of depreciation indicators

These indicators are aimed at allowing the identification in the database of those credits for which there is depreciation. For example: - credits with financial performance E new repayment spread-out for the credit agreement - acknowledgment of a provision for the depreciation of the respective credits during a previous reporting period debt service over 45 days - clients undergoing the bankruptcy procedure or judicial restructuring.	Setting a set of depreciation indicators to be easily identified in the database drawn up for the statutory prudential reports.

Step 3 – Grouping of credits into portfolios/groups with similar credit risk characteristics

For example: - retail credits: per types of products (e.g. loan on mortgage, motor vehicle loan, current needs credit, etc.) and per geographical areas (e.g. Muntenia, Moldova and Transilvania). - corporate credits: per industries (e.g. agriculture, trade, production, transportations, energy, etc.) and per geographical areas (e.g. Muntenia, Moldova and Transilvania).	Definition of criteria for grouping credits; Credit grouping (except individually significant credits identified under Step 1) per defined portfolios; Extraction of total principal and total receivables attached to each portfolio.

Step 4 – Collection and centralization of historical data (3 years at least)

A. In view of the collective assessing of the groups with similar characteristics, for each such a group the historical loss data shall be determined using the formula: (sums taken off-balance during the time interval minus recovered sums)/average balance of the credits in the group during the analyzed time interval (e.g. 2005-2007). B. In view of estimating the future cash flows from the guarantees valuation, there shall be drawn up a database with the following characteristics:	Extraction of information from the adjoining table in the database, during the maximum historical time interval during which it can be obtained. Grouping of the extracted information into the portfolios identified under Step 3. Calculation of the loss historical rate for each of the portfolios identified under Step 3.

Type of guarantee	Guarantee value in the bank's records	Value recovered by sale (net of the sale related costs)	Time gap between the time of loss identification and the time of guarantee valuation

Step 5 – Individual assessment of individually significant credits

For each significant credit, the Bank shall estimate whether there are depreciation signs by checking the previously stipulated conditions as well as other conditions specific to each separate credit. The depreciation loss (provision) shall be calculated as the difference between the recovery value and the net accounting value of the credit on the assessment date. The recovery value is the difference between the accounting value of the asset and the current value of the expected cash flows (excluding future losses not having occurred yet), updated using the actual interest rate of the credit. In the determination of the recovery value there shall be taken into account the current value of the cash flows resulted from the guarantees valuation. For the individually significant credits for which the recovery value is higher than or equal to the net accounting value, these credits shall be grouped into the portfolio together with credits with similar characteristics to be collectively assessed.	For each of the individually significant credits identified under Step 1, there shall be determined whether there are depreciation indicators (among those identified under Step 2 or other indicators). For each of the individually significant credits with depreciation indicators, the future cash flows shall be estimated depending on the cash flows forecasts requested from clients and checked by the credit analyst. The future cash flows shall be updated by using the actual interest rate of the credit and thus the recovery value is obtained The recovery value is compared to the net accounting value and for the minus difference the depreciation loss (provision) is calculated. All the individually significant credits identified under Step 1 which following the procedures under Step 5 do not have a provision calculated from them, shall be transferred to the corresponding portfolio within those identified under Step 3.

Step 6 – Individual assessment of credits below the significance threshold

For each credit below the significance threshold for which depreciation signs have been noted, the Bank shall asses whether there are depreciation losses. If the recovery value is lower than the net accounting value, a depreciation loss shall be acknowledged. If the recovery value exceeds the net accounting value, the credit shall be grouped into the portfolio together with credits with similar characteristics to be collectively assessed.	Out of the credit not individually significant, from the database there shall be extracted those credits for which there are one or several depreciation indicators defined under Step 2. For each of the credits identified this way, the similar provision shall be calculated using the methodology applied for individually significant credits under Step 5. The credits for which a provision has been calculated are excluded from the credit portfolios with similar credit risk characteristics.

Step 7 – Collective assessment of groups with similar credit risk characteristics	
All the credits for which no individual losses have been identified shall be grouped into portfolios with similar credit risk characteristics, and then the adjusted historical loss indicator shall be applied to the exposure existent on balance upon the assessment date.	For each of the credit portfolios identified under Step 3 (plus individually significant credits not provisioned under Step 5 minus credits not individually significant and provisioned under Step 6) the historical rate of the loss calculated under Step 4 shall be applied to the balance on the balance sheet date (principal and attached receivables) and thus the loss from collective depreciation (collective provision) shall be determined.
Step 8 – Registration of the depreciation loss	
The total depreciation loss is determined as the sum of the individual and collective depreciation losses and is registered as expense in the profit and loss account in consideration of a credits provisions account.	The total provision shall be calculated as an individual provision (individually significant credits) – Step 5 plus individual provision (credits not individually significant) – Step 6 plus collective provision – Step 7. The provision thus calculated is recorded in the IFRS financial statements in consideration of the expense for provisions.

3.3. Example of determination of depreciation provisions

In order to determine the level of credit depreciation provisions at the level of bank A, for 31.12.2007, the following meanings have been agreed in the working methodology:

- *Time interval.* At bank A level, the historical analysis of the credit portfolio has been performed for 3 years (time interval January 1, 2005 – December 31, 2007)
- *Depreciation indicators* required for the identification in the database of those credits for which depreciation exists have been set for the credit portfolio of bank A as follows:

Objective indicators:	Client's financial performance: D or E, and/or Debt service > 30 days (problem credits)
Subjective indicators:	Rescheduling, new repayment spread-out, reactivation of the credit

- *Significance threshold.* Following the historical analysis of the credit portfolio of bank A, the significance threshold used to delimit individually significant credits has been set at 0.5% of the bank's net assets on 31.12.2007, namely RON 1,000,000.
- *Foreign exchange rate.* The calculations have been performed in RON equivalent to the closing exchange rate of BNR existing on the date of each balance sheet. In order to determine the RON equivalent of the recovered amounts and of the depreciation losses related to each year and to each analyzed credit group, the annual average exchange rate set by BNR has been used as follows:

Currency \ Date	31-Dec-05	31 -Dec-06	31-Dec-07
Euro (EUR)	RON 3.6771 3.6234*)	RON 3.3817 3.5245*)	RON 3.6102 3.3373*)
US Dollar (USD)	RON 3.1078 2.9136*)	RON 2.5676 2.8090*)	RON 2.4564 2.4383*)

*) Annual average exchange rate.

In view of determining the required specific credit risk provisions based on the methodology stipulated in the International Accounting Standard IAS 39, the following stages have been covered[10]:

a. Delimitation of the credit portfolio depending on the significance threshold

To analyze the credit portfolio of bank A in view of determining the depreciation losses per categories of debtors, the significance threshold calculated at 0.5% of the bank's net assets on 31.12.2005 (RON 1,000,000) has been used. The credits exceeding this threshold have been individually assessed in order to determine the depreciation losses.

30 clients whose exposure[11] exceeds the significance threshold have been identified. The cumulated value of the significant debtors' exposure is RON 70,000,000, representing 50% of the entire credit portfolio.

These clients have been tested in view of identifying the depreciation signs. No objective depreciation signs have been found, all the debtors having financial performance A or B on 31.12.2007 and not having recorded overdue amounts. Regarding subjective depreciation signs, one debtor was included in this category: SC ALFA SRL, credit amounting to EUR 300,000, reactivated in November 2007, but reimbursed in full on 31.07.2008[12].

Due to the fact that no depreciation signs have been identified, the significant debtors have been subject to the collective approach.

b. Individual approach

The clients with objective depreciation signs on 31.12.2007 have been analyzed individually in view of calculating the depreciation losses. This portfolio of clients has been analyzed using the 2 categories of clients: natural persons and legal persons.

The exposures related to these categories on 31.12.2007 are shown in the following table:

(RON equivalent)

Category of debtors	Category of credit		Exposure	% of total portfolio
Natural persons	A. Off-balance credits		58,330	0.05
	B. Balance sheet credit	B.1. Credit cards	12,780	0.01
		B.2. Consumption credits	133,564	0.11
	C. Credits reimbursed in full		146,922	0.12
Total natural persons			351,596	0.28
Legal persons	D. Credits reimbursed in full		1,273,130	1.03
	E. Balance sheet or off-balance credits		439,507	0.35
Total legal persons			1,712,637	1.38
Total credits with depreciation signs			2,064,233	1.67

For each of these categories the depreciation losses have been determined based on the following algorithm:

$$P = \sum_{i=1}^{n} P_i$$

$$P_i = E_{31.12.2005\ i} - VR_i$$

$$VR_i = R_i - VA_i$$

$$R_i = E_{31.12.2005\ i} - E_{31.07.2006\ i}$$

$$VA_i = E_{31.12.2005\ i} \times c_{gar.},$$

where:

P- provisions calculated individually for each credit;

VR - recovery value determined for each credit;

E - credit related exposure[13];

R - recovery calculated for each credit;

VA - value adjusted depending on the guarantees recovery coefficient;

$c_{gar.}$ - guarantees recovery coefficient, calculated based on the background.

b.1. Credits for natural persons

Category A – credits in the off-balance sheet records on 31.07.2008 and with no significant difference in value on 31.12.2007 and on 31.07.2008 (recorded off-balance after 31.12.2007). These credits have been provisioned in full. Category A Provision – RON 58,330

Category B – credits that on 31.07.2008 are still in the balance sheet. They have been grouped as follows:

- *Category B.X.* – Credit cards. These credits are not guaranteed, only the granted incomes being taken into account. The provision has been calculated as the difference between the principal on 31.12.2007 and the recoveries during January – July 2008. Category B.X. Provision – RON 10,980
- *Category B.Y.* – Personal consumption credits, guaranteed by the nonpayment risk policy with insurance companies. The guarantees adjustment coefficient was calculated based on the historical data (2005 – 2007). During this time interval there has been analyzed the degree of compensation of damage files submitted to the insurance companies, a 90.36% percentage resulting. This percentage arises from the fact that some files have been partially compensated or have been rejected the compensation, due to the incomplete documentation or due to the noncompliance by the bank with the deadlines and conditions stipulated in the insurance agreements.

In order to determine possible provisions the difference between the credits' value on 31.12.2007 and the recoveries during January – July 2008 has been calculated. Following the calculation of the recovery value there resulted that it was not necessary to create individual provisions, and therefore these credits have been included in the collective approach.

- *Category C* – Credits that on 31.07.2008 are no longer in the balance sheet, or in the off-balance sheet records, as they have been reimbursed in full. These credits have been transferred to the collective approach, as they did not show depreciation signs.

b.2. Credits for legal persons

- *Category D* – credits that on 31.07.2008 were not in the balance sheet, or in the off-balance sheet, being reimbursed in full by the clients. These credits have been transferred to the collective approach, as they did not show depreciation signs. This category includes 2 debtors:

– BETA SRL (depreciation index – financial performance E) – credit recovered in full during January – July 2008

– ALFA SRL (subjective depreciation index – credit reactivation) – credit recovered in full during January – July 2008.

- *Category E* – credits that on 31.07.2008 are still in the balance sheet or in the off-balance sheet records. These

credits have been individually tested in order to determine depreciation. The provision was calculated as follows: the recovery value was calculated = exposure – adjusted guarantees – recoveries. The current value of the recovery amount represents the upgrading of the recovery amount by the guarantees recovery percentage depending on the deadlines. The value of the credit not covered by guarantees (provision) is calculated as the difference between the recovery value and the current value of the recovery amount. If the recovery value is larger than the accounting value, the provision shall not be calculated and the respective credits are transferred to the collective approach.

The guarantees related to the credits in the Category E were the following:

▪ *Mortgages on natural person house, lands or buildings.*

The recovery percentage of this type of guarantee was calculated based on the historical data (analysis of the credits recorded off-balance and guaranteed by this type of guarantee).

▪ *Returns assignments.* The recovery percentage of this type of guarantee was considered 0% following the analysis of the historical data during 2005 – 2007 (the off-balance receivables were recovered from other sources, and not from the valuation of these assignments.). The recoveries were considered to be the difference between the balance of the off-balance credits on 31.12.2007 and the balance on 31.07.2008. If the difference was negative, the recovery was zero.

Due to the fact that most of these credits were credit lines, with a flat management commission of 1% and the interest rate upon the granting of the credits was 10 – 30%, the used interest rate was the rate at the beginning of the credit agreement, and not the actual interest rate.

The debtors included in Category E and the provision assessed for theses debtors are shown in the table below:

Client	Foreign currency	Pert fin	Arrears days	Total receivables	Guarantees value	Value of credit nor covered by guarantees	Provision RON equivalent
GAMA SRL	USD	B	92	119,992	1,366,055	104,488	324,729.06
OMEGASRL	EUR	A	44	20,998	31,544	577	2,122.90
SVF SRL	RON	E	0	25,875	68,332	-16.143	no provision required
PI SRL	EUR	E	232	3,258	18,659	-8.890	
ABC SRL	RON	A	11	269,383	622,540	-115.932	

Provision category E – RON 326,852

Provision calculated by means of the individual approach – RON 396,161.

e. Calculation of the total provision according to IAS 39

The final provision has been determined as the sum between the provision calculated

by the collective approach and the provision resulted from the individual approach.

(equivalent RON)

Provision	Sum	%	% of total credit portfolio
Provision – individual approach	396,161	44.3	0.3
Provision – collective approach	500.000	55.7	1.53
Total provision	896,161	100	1.58

4. Current methodology for the calculation of credit risk specific provisions, according to BNR regulations

Regulation no. 5/2002 of BNR with the subsequent amendments and completions regulates the following aspects:

a. classification of credits granted to clients outside the credit institutions sector;

b. classification of credits granted to other banks and of investments made by these banks;

c. establishment, regulation and use of credit risk specific provisions.

a. Credits classification

In view of determining the required credit risk specific provisions, both credits and investments shall be classified in the following categories:

- *standard;*
- *under observation* (only for credits granted to clients outside the credit institutions sector);
- *substandard* (only for credits granted to clients outside the credit institutions sector);
- *doubtful* (only for credits granted to clients outside the credit institutions sector);
- *loss*.

Credits and investments are classified by simultaneously applying the following criteria:

a. debt service (number of days related to the unpaid credit installments)

b. financial performance (calculated based on a system of quantitative and qualitative indicators. Each individual indicator presents an individual number of points, depending on its calculated level. Depending on the indicator's weight, its final quotation is determined. The sum of individual quotations of each indicator (quantitative and qualitative) represents the final quotation of the client based on which the financial performance category to which the client belongs on the analysis date is determined.

Performance categories shall be marked from A to E in descending order of its quality. The determination frequency of a financial performance category for an economic entity coincides with the frequency of drawing up financial statements.

c. initiation of legal procedures.

The correspondence between these criteria and the classification categories is the following (Table 3):

Criteria for inclusion into classification categories of credits granted to clients outside the credit institutions sector

Table 3

Debt service \ Financial performance	A	B	C	D	E	
0 - 15 days	Standard	Under obs.	Substandard	Doubtful	Loss	No legal procedures were initiated
	Loss	Loss	Loss	Loss	Loss	
16 - 30 days	Under obs.	Substandard	Doubtful	Loss	Loss	
	Loss	Loss	Loss	Loss	Loss	
31 - 60 days	Substandard	Doubtful	Loss	Loss	Loss	
	Loss	Loss	Loss	Loss	Loss	
61 - 90 days	Doubtful	Loss	Loss	Loss	Loss	
	Loss	Loss	Loss	Loss	Loss	
minimum 91 days	Loss	Loss	Loss	Loss	Loss	Legal procedures were initiated
	Loss	Loss	Loss	Loss	Loss	

b. Procedure for the determination of the required credit risk specific provisions

The calculation of the necessary volume of provisions is made per each separate credit agreement depending on its category. Credit risk specific provisions are determined only for the obligations in the balance sheet assets.

To determine the necessary credit risk specific provisions, the following steps shall be taken:

1. determination of the calculation basis for the credit risk specific provisions, as follows:

- deduction from the bank exposure towards the debtor of the guarantees accepted for being taken into account, according to the Methodological Norms of BNR no. 12/2002 with the subsequent amendments and completions and to the BNR Norm no. 11/2006, for a credit classified in the "standard", "under observation", "substandard", "doubtful" and "loss" category, in case legal procedures have not been initiated and if all the sums of the respective credit have a debt service exceeding 90 days;
- the taking into account of the entire exposure, regardless of the accepted guarantees, for a credit classified in the "loss" category, in case the legal procedure has been initiated or if at least one of the sums (the principal or the interest) registers a debt service exceeding 90 days. The situation is considered in a similar way with regards to an investment classified in the "loss" category.

2. application of the provisioning coefficient on the resulted calculation basis, according to the table below:

Classification category	Coefficient
standard	0.00
under observation	0.05
substandard	0.20
doubtful	0.50
loss	1.00

In order to determine the credit risk specific provisions for a risk entity the following actions are taken:

▪ the unadjusted (gross) exposure is determined, by identifying all the balance and off-balance sheet items related to the credit agreement (the active credit value + unused ceiling + related interests) per each credit agreement

▪ the fair value (accounting value) of the accepted guarantees and established upon the granting of the credit is determined

▪ the adjusted exposure is determined by deducting out of the unadjusted exposure of the bank in relation to the risk entity (credit and interest) the accepted guarantees at the fair value proportionally distributed between the guaranteed asset items going through the following steps:

- identify the balance and off-balance sheet items related to the credit agreement; determine the weight of each item in the total gross exposure

- identify the guarantees related to the credit agreement;

- proportionally distribute the weighted guarantees to each balance and off-balance sheet item making up the gross exposure.

The exposure adjusted per each balance and off-balance sheet item shall be equal to the gross exposure – guarantees (weighted, as the case may be).

The agreement adjusted exposure represents the sum of all the adjusted exposures related to each balance and off-balance sheet item.

▪ the credit risk provisions requirement is determined only for each balance sheet asset item and it is established by multiplying the provisioning coefficients related to each classification category with adjusted exposure.

Notes

(1) Specific credit risk provisions are the provisions established by the credit institutions in view of covering potential losses due to credits and investments.

(2) See International Financial Reporting Standards.

(3) The approach that uses the internal models is based on the probability of default (PD) analyzed on average for 12 months and on the most conservative estimation of the loss by nonpayment (LGD - Loss Given Default).

(4) The used term is Internal Ratings-Based (IRB).

(5) The term used is "shortfall".

(6) The used term is "trigger" event.

(7) We can talk about depreciation loss when it is foreseen that the bank shall not collect all the due amounts of the future installments (principal + interest) according to the contractual terms or that these due amounts cannot be recovered by exploiting the guarantees.

(8) The depreciation losses to occur as a result of future events are not acknowledged.

(9) For variable interest credits, the updating rate shall be regarded as the interest rate existing on the assessment date, determined according to the contractual terms.

(10) Meaning decision-making flow and the steps taken to calculate the provisions.

(11) Exposure = current balance + overdue balance.

(12) Due to the reimbursement of the debt in 2006, the debtor has been regarded as not showing depreciation signs.

(13) Exposure = credit principal on the date the exposure is calculated (current balance + overdue balance).

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