

MEASURES TO PREVENT THE RISK OF LENDING TO IMPROVE THE FINANCIAL PERFORMANCE. ANALYSIS OF THE CREDIT RISK SITUATION WITHIN BRD - GROUPE SOCIÉTÉ GÉNÉRALE S.A.

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***Abstract:** Risk management within BRD is based on an integrated concept that takes into account statutory and regulatory standards as defined and provided by the NBR and the European Supervisory Authorities, Société Générale risk management standards and generally accepted banking practices. The purpose of the research is to analyse the global exposure of the bank to credit risk, quantified by weighted and relative indicators, deepened by studying the risk at the segments of the clientele, by sectors of activity, by seniority groups of overdue loans, of not impaired loans and without arrears, as well as the coverage of credits with guarantees, and it is relevant to corroborate it with the indicators that express the financial performance of the credit institution.*

***Keywords:** risk, credit, bank, indicators.*

***JEL classification:** G210, G320*

1. Introduction

Credit risk is defined as the loss incurred by the bank if a client fails to meet the obligations stipulated in the contract, as is traditional banking products (credits and letters of credit), but also financial-futures contracts of the type of derivatives.

The Bank's credit policy is based on the principle that the approval of any loan must be based on a solid knowledge of customers, the purpose and structure of the transactions and sources of credit repayment. The Bank expects the debt to be reimbursed primarily from the future cash flows for legal entities and incomes for individuals.

BRD is part of the international network of Société Générale, managed by the International Banking and Financial Services (IBFS), which offers a wide range of products and services specific to lending to customers, individuals and businesses.

The bank's strategy on the bank risk management has as its central pillar the management of the credit risk.

Reducing the risk of loss in case of customers' inability to pay is the main concern of the bank in the process of approving the loans. Thus, the quality of the client portfolio is assessed through an internal rating system, as part of an expert analysis.

2. Credit risk management

Credit risk is managed in accordance with domestic, local and European regulations, the Société Générale Group's policy and the bank's best practices for the risk management.

The most important principles underlying the credit risk management used by BRD are as follows:

- Prudent standards in credit analysis in terms of assumed risk;

- Appropriate criteria for granting credits according to the client typologies that require careful knowledge of them, as to the purpose of the funding, the sources of reimbursement and the risk reduction by concluding the actual or personal guarantee contracts;
- Well-grounded procedures for approving credits, which provide for a clear delimitation of skills and individual credit approval limits, depending on the level of experience and training;
- Applying a rating system, established by internal bank rules, in the analysis of credit applications for the non-retail segment;
- Providing a diversified loan portfolio, with the setting of individual, regional, geographical, transactional limits of the bank's attitude towards the risk;
- Determining clearly the responsibilities of the front office and back office staff;
- Allocation of duties on decisions to launch new products and services on the market, as well as the modification of the ones offered to the executive management;
- Permanent monitoring of the individual exposure or customer segments to the credit risk;
- Quantification of the credit risk arising from non-performing loans, which involves the periodic calculation of objective indicators;
- Assessment of the quality of the credits granted by the bank and its reporting on a hierarchical level, to the Bank's management;
- Quarterly, half-yearly and annual reporting to the Board of Directors of the Bank of the results of the credit risk management activity;
- Auditing the lending activity by the department invested in these tasks.

The three main business activities of the bank: commercial, transactional and treasury are the source of the credit risk exposure.

3. Credit risk mitigation techniques

BRD's lending policy is based on cash flows, so the bank expects repayment of loans to be made from future receipts realized by entities and incomes made by individuals. Also, internal rules provide concluding thereal or personal guarantee contracts to reduce the exposure of the bank to credit risk.

The typology of acceptable guarantees by BRD is the following:

- Real financial guarantees (cash, debt securities, shares, certificates of deposit);
- Real non-financial guarantees (real estate and movable assets: machinery and equipment, intangible assets, stocks, payment instruments, claims).
- Personal guarantees (fiduciary, guarantee letters, financial guarantees provided by guarantee funds, state guarantees, and non-payment risk).

Real estate guarantees are most often used, but for loans with special destination other guarantees are accepted. However, the structure of guarantees is diversified according to the type of financing (for example, guarantees for stocks and claims are accepted to finance the current activity).

These guarantees are periodically evaluated in accordance with procedures approved by the Risk Department. Real estate guarantees, for example, are assessed by certified, internal or external assessors, in line with the International Valuation Standards and ANEVAR.

Market and income approach are methods of real estate valuation. The periodicity of the revaluations is given by the destination of the real estate, thus, for residential purposes is 3 years, respectively 1 year for commercial, agricultural or industrial ones. The rule changes in the context of a declining real estate market, making it more frequently

reevaluation in this case. The valuation of guarantees is monitored permanently in the Bank's internal audit.

The Romanian State is the main guarantor for the bank's clients, who intervenes in the national programs through the Guarantee Funds (FNGCIMM or FGCR) or Eximbank, in order to support lending activity, the most eloquent example being the First Home.

Commercial banks also guarantee for BRD customers by issuing bank guarantee letters.

The residual risk is managed by the bank by revaluation of guarantees, being evaluated by the calculation of specific risk indicators.

4. Calculation of global credit risk indicators

In order to be able to carry out a proper analysis of BRD on the credit risk exposure and to take appropriate measures to mitigate this risk, we used a specific indicator system. From the Directors' Annual Reports in 2015, 2016 and 2017, we extracted the data for the calculation of the following global credit risk indicators, which quantifies the bank's overall exposure to credit risk:

D) *Indicators of structure or share*

1) *The ratio of the credits granted to total assets*, the higher the share in the total assets, the more the banking activity is perceived as more risky.

$$R_{CvAt} = \frac{Crt}{At} \times 100 \quad (1)$$

Throughout the time horizon analysed there is a constant, slightly increasing trend from one year to the next, the increase of the credits granted being more pronounced than that of the total assets (Table no.1).

Table no. 1. Credits granted in relation to total assets 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
(26376425 / 49192866) x 100 = 53.62%	(27384110 / 50657583) x 100 = 54.06%	(29011925 / 53490923) x 100 = 54.24%

Source:BRD

2) *The rate of overdue loans*, reports the overdue loans of BRD in the total credits granted by the bank. In order for the bank's portfolio to be managed as effectively as possible in terms of the credit risk, the value of this ratio should be as small as possible.

$$R_{acer} = \frac{Crr}{Crt} \times 100 \quad (2)$$

The rate of non-performing loans, as defined by the European Banking Authority, fell from 20.7% by the end of 2014 to 13.5% by the end of 2015, 9.5% by the end of 2016, to 6.4% at the end of the year 2017, supported by balance sheet clearing operations (Table no. 2).

Table no. 2. Rate of overdue loans, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
(3059174 / 26376425) x 100 = 11.60%	(3185078 / 27384110) x 100 = 11.63%	(3126514 / 29011925) x 100 = 10.77%

Source: BRD

This indicator can also be determined by the structure of the overdue loan portfolio as follows:

2.1) Rate of overdue loans to legal entities:

$$R_{CPJr} = \frac{CrrPJ}{CrtPJ} \times 100 \quad (3)$$

The dynamics of this indicator experienced an upward trend with a peak reached in 2016, after which it fell significantly in 2017 as a result of the decrease in the value of the overdue loans to legal entities (Table no.3).

Table no. 3. Rate of overdue loans to legal entities, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
(380607 / 8625214) x 100 = 4.41%	(543579 / 8684715) x 100 = 6.26%	(339109 / 8753027) x 100 = 3.87%

Source: BRD

2.2) Rate of overdue loans to individuals:

$$R_{CPFt} = \frac{CrrPF}{CrtPF} \times 100 \quad (4)$$

In the case of this indicator, the evolution was clearly decreasing, also influenced by the global tendency of decreasing the overdue loans, due to the recovery of claims (Table no.4).

Table nr. 4. Rate of overdue loans to individuals, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
(2678567 / 17751211) x 100 = 15.09%	(2641498 / 18699395) x 100 = 14.12%	(2787405 / 20258898) x 100 = 13.76%

Source: BRD

3) Structure indicators of the loan portfolio according to the duration of the credit contract:

3.1) Rate of short-term loans in total loans:

$$R_{Cts/tC} = \frac{Crts}{Crt} \times 100 \quad (5)$$

Short-term loans declined in 2016 compared to 2015 in favour of long-term loans, then they saw a slight increase in 2017, to the detriment of these (Table no. 5 and Table no. 6).

Table no. 5. Short-term loans in total loans, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
$(6363858 / 26376425) \times 100 = 24.13\%$	$(6000391 / 27384110) \times 100 = 21.91\%$	$(6374457 / 29011925) \times 100 = 21.97\%$

Source: BRD

3.2) Rate of medium and long term loans in total loans:

$$R_{Ctm/TC} = \frac{Crtm}{Crt} \times 100 \quad (6)$$

Table no. 6. Medium and long term loans in total loans, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
$20012567 / 26376425) \times 100 = 75.87\%$	$(21383719 / 27384110) \times 100 = 78.09\%$	$(22637468 / 29011925) \times 100 = 78.03\%$

Source: BRD

II) *Relative indicators*, correlation of bank assets with capital and bank funds, are important to be followed because they give a quantitative expression of the relationship between the exposure to risk and the source of funding for this exposure. They can be used as indicators:

1) *The net profit attributable to credit portfolio losses*, which takes into account that net profit is the main source of loss financing, and their coverage is not the only destination. Calculated in this form, the indicator is most often greater than one. It can also be calculated in reverse, but then it is obviously below then one. It is important that the resources cover the losses from the lending activity:

$$R_{PRn/Pic} = \frac{PRn}{Pic} \times 100 \quad (7)$$

We considered that the loss on the credit portfolio was due to the net cost of the risk. For the year 2017, this indicator cannot be calculated because this cost has been negative, due to the resumption of credit recovery, the recognition of compensation received from insurances, and the earnings on sales of non-recoverable claims.

As a result, the bank did not record any loss with non-performing loans, on the contrary, it recorded profits of 376 million lei, compared to 461 million lei losses accounted for in 2016.

Which means that many of the losses in the non-performing loans anticipated in 2016 in the form of provisions have not been confirmed, so the bank has managed to recover a large part of these loans which it believed would no longer be paid by customers, especially by firms.

As it can be noticed, due to the decrease of the cost of the risk on the one hand and the increase of the net profit, on the other hand, the indicator evolved in 2016 becoming greater than one, which shows a solid financial position of the bank to cover these losses (Table no. 7).

Table no. 7. Net profit reported to the net cost of risk, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
(445422 / 631149) x 100 = 70.57%	(728281 / 461176) x 100 = 157.92%	-

Source: BRD

2) Even more edifying is *the ratio between the reserve fund and the losses recorded on the loan portfolio*. This ratio must be greater than 1 in order to be able to appreciate that the bank's management is prudent.

For both 2015 and 2016 this indicator is grater then one, underlining the prudential nature of management (Table no. 8).

$$R_{Fr/Pic} = \frac{Fr}{Pic} \times 100 \quad (8)$$

Table no. 8. Reserve fund related to the net cost of risk, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
(3465567 / 631149) x 100 = 549,09%	(3851561 / 461176) x 100 = 835.16%	-

Source: BRD

3) *The share of credits granted to customers in total attracted and borrowed resources, which report loans to customers at attracted and borrowed sources, dimensioned according to the bank's own equity.*

$$Cr_{Cl/Sai} = \frac{Crcl}{TP-Cp} \times 100 \quad (9)$$

Throughout the period, there is an upward trend in this indicator from one year to the next, the increase of the credits granted to customers being accentuated. Total attracted resources resulted from the difference between total liabilities and equity (Table no. 9).

Table no. 9. Credits granted to customers in total attracted resources, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
[26376425 / (49192866- 5981189)] x 100 = 61.04%	[27384110 / (50657583- 6367183)] x 100 = 61.83%	[29011925 / (53490923- 7028387)]x 100 = 62.44%

Source: BRD

4) *Share of loans and investments to banks in total assets:*

$$Cr_{bc/TA} = \frac{Crbc}{TA} \times 100 \quad (10)$$

For this indicator, there was a decrease in 2016 compared to 2015, followed by a more pronounced increase in 2017, which means that lending activity was more risky in this last year of analysis (Table no. 10).

Table no. 10. Share of loans and investments to banks in total assets, 2015-2017

- thousand lei -

31.12.2015	31.12.2016	31.12.2017
$(2287837 / 49192866) \times 100$ = 4.65%	$(1971333 / 50657583) \times 100$ = 3.89%	$(2530468 / 53490923) \times 100$ = 4.73%

Source: BRD

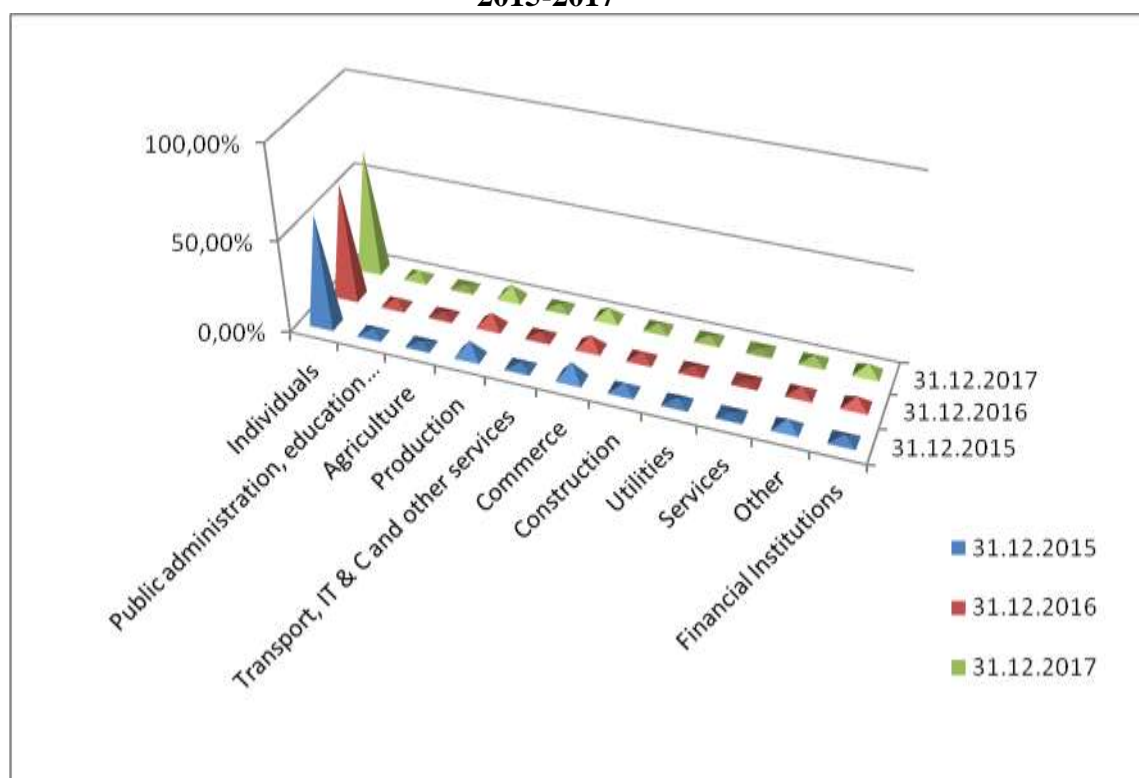
For this indicator, there was a decrease in 2016 compared to 2015, followed by a more pronounced increase in 2017.

III. Other indicators calculated in the credit risk analysis at BRD

❖ Analysis of the sectoral structure of the credits granted

As shown in the chart below, risk exposures on the credits granted to the legal entities decreased as a result of the increase in the share of credits granted to individuals to the detriment of loans to other sectors of activity (Chart no. 1)

Chart no. 1. Chart of the structure by sectors of credits granted in the period 2015-2017

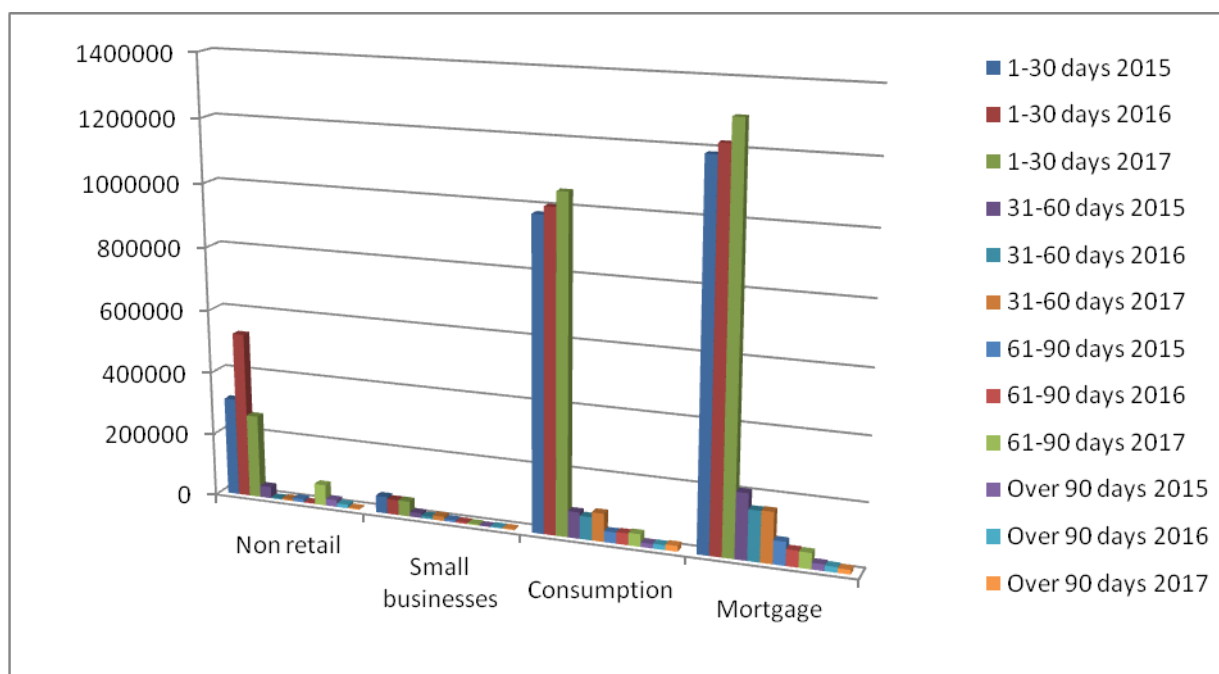


Source: BRD

❖ Analysis of seniority of overdue loans, but not impaired, by types of credit

As we can see, the share for all types of overdue loans is those with delays of up to 30 days, which is encouraging, the chances of these arrears being recovered are very high. The amount of loans with delays up to one month decreased overall and for non-retail, but increased for other types of loans.

Chart no. 2. Overdue loans, but not impaired, by seniority groups and types of credit 2015-2017



Source: BRD

It also increased the value of loans with a maturity between 31-60 days for all types of credit, but the spectacular and unfavourable increase was recorded for loans with overdue between 61-90 days as a whole and for non-retail and consumer loans and for the other two types, small businesses and mortgages, with a declining trend.

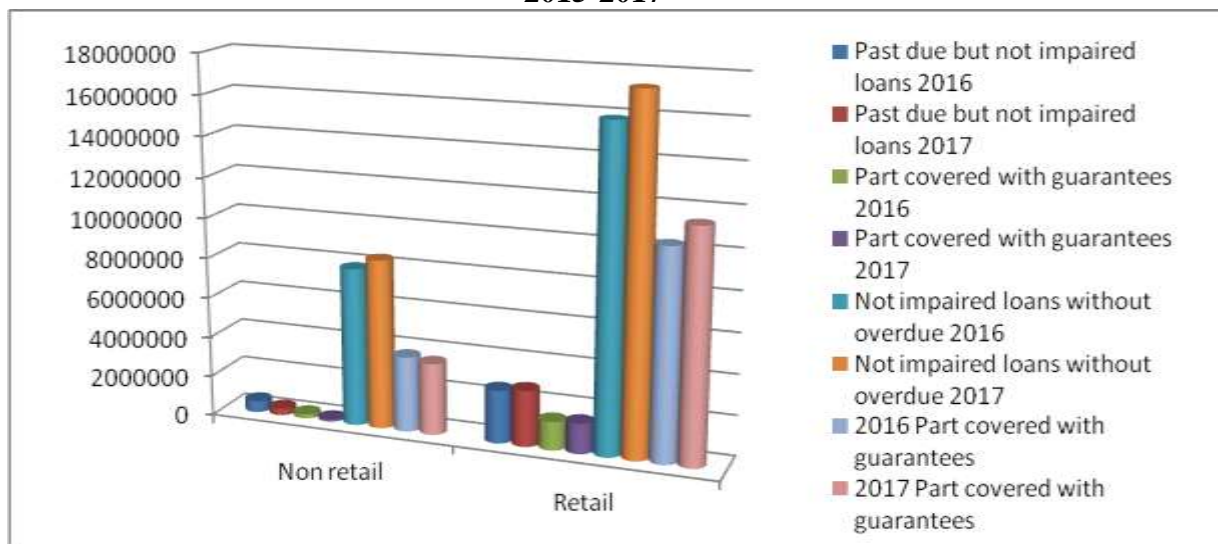
Gratifying aspect is given by the evolution of overdue loans over 90 days, which are not performing, the amount of which decreased overall and in the case of non-retail and mortgage loans, for the other two, consumption and small enterprises, the evolution being ascendant.

There is a downward trend in both overdue loans and non-retail loans in 2017 as compared to 2016. Unfortunately, for the other types, there was an increase.

❖ Analysis of guarantees coverage of credits granted to individuals and legal entities

By decreasing the amount of overdue loans, but not impaired, there is a decreasing of a part of the guarantees coverage, while it is registering at the same time an increasing of the part of the guarantees coverage for the overdue loans, but not impaired, which had an ascending evolution (Chart no. 3).

Chart no. 3. Guarantee coverage of credits granted to retail and non-retail customers 2015-2017

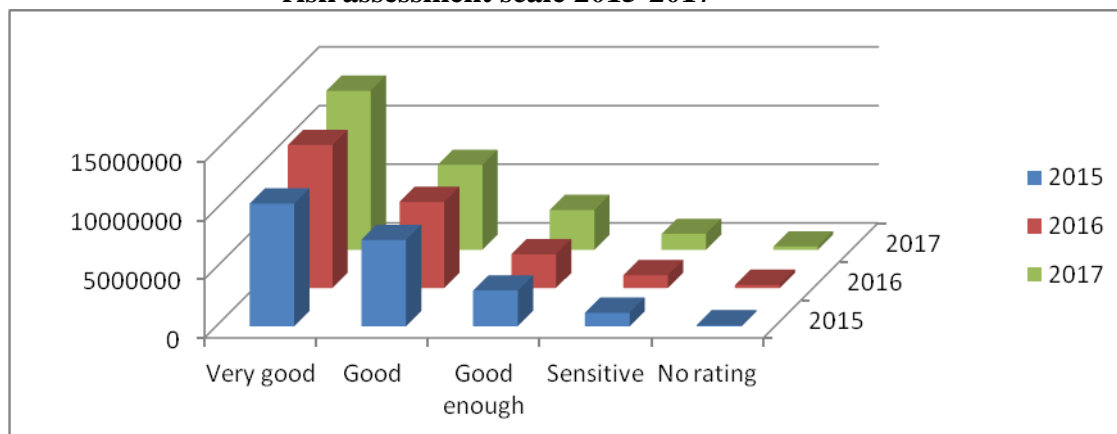


Source: BRD

- ❖ Analysis of not impaired loans and unpaid according to the credit risk assessment scale

Credits and advances granted to customers include municipal bonds, worth 82.268 million lei on December 31, 2015, 257311 million lei on December 31, 2017, respectively 263728 on December 31, 2016 and are presented in the line "Not Rated" (Chart no. 4).

Chart no. 4. Analysis of not impaired loans and unpaid according to the credit risk assessment scale 2015-2017



Source: BRD

There is an increase in loans appreciated with the „very good” rating, and a decrease in loans appreciated with good rating, which shows an improvement of the state of loans without arrears. Trends of the other rating were also increased, which can also be attributed to the increase in the volume of credits granted from one year to the next.

4. Conclusions

BRD is one of the most powerful banks in Romania, initially maintaining second place after BCR, and then third in the top of these institutions.

Solidity lies both in the adopted banking policy, the competitive management, the varied commercial offer oriented to customer and in the well trained human resources efficiently managed.

In 2016, credits granted to individuals increased by 4.5% compared to 2015, their growth being driven by the real estate and consumer loans. Amounts allocated to the „First House” governmental program have made a solid contribution to the increases in mortgage loans, while the promulgation of the law on putting into payment caused a decrease in demand for this category of loans due to the increase of the requested advance. Credits granted to the legal entities have declined, despite the favourable interest rates and a strong increase of the economic activity. The balance of gross loans decreased by 1.7% due to due to the write-off and sale of the impaired loans.

The year 2017 was characterized by a strong increase in lending to retail segments and large corporations. Credits granted to individuals were the main growth factor + 6.6% compared to the end of 2016, due to housing and consumer loans, while loans to companies increased slightly by only + 0.9% comparative with the same year.

The bank’s lending activity involves the credit risk that directly influences the bank’s profitability through the very elements of anticipation on which is based the lending decision and the measurement of this risk.

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