

**ANALYSIS OF THE INTEREST RATE AT THE DEPOSITS AND
LOANS OF POPULATION HOUSEHOLDS PRACTICED BY
CREDIT INSTITUTIONS IN ROMANIA**

**SÎRBULESCU CLAUDIA*¹, PÎRVULESCU LUMINITA¹, FEHER ANDREA¹,
CHIRILĂ MARIANA², CHIRILĂ DANIEL²**

*¹Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael Ist of
Romania" from Timisoara, Faculty of Management and Rural Tourism, Romania*

²Politehnica University Timisoara, Romania

*Corresponding author's e-mail: sirbulescuclaudia@usab-tm.ro

***Abstract:** The paper presents an analysis of the interest rate, knowing the fact that it has an important role in the operation of the banking system, being the main element according to which the interest is calculated. The interest rates charged by credit institutions on deposits and loans granted to households are analyzed. The saving process has beneficial effects in terms of the development of the bank's activity because it is directly related to the volume of resources attracted. It is also demonstrated that lending is the main financing flow of a country's economy, the types of credit being diverse adapting to market requirements.*

Keywords: *interest, interest rate, credit institutions*

INTRODUCTION

Commercial banks carry out a complex number of lending operations, mainly from the funds obtained from the attracted deposits.

Interest represents the cost of money that a person agrees to pay when accessing a loan, paying the credit itself. In the case of a term deposit, the interest is the "fruit" of the money for the creditor that he has the right to collect for the fact that he has placed the savings in the bank, for example [10, 11, 12].

The interest rate represents a way of obtaining income, respectively profit, from the activity of intermediation between the demand and supply of capital [2, 6].

Keeping savings in the form of bank deposits is the safest way to keep money. To the physical security offered by bank deposits, is added the fact that they are extremely effective saving tools. Bank deposit is a means by which you can save by depositing a monthly amount of money in a bank account and receiving an interest from its part. The tendency to spend more from the obtained income is a normal behavior, but it can be changed by financial discipline in which the role of bank deposits is categorical. In addition, bank deposits bring interest bearing benefits that cover or reduce the long-term adverse impact of inflation [3, 4, 5].

The bank deposit or the deposit at term actually represents the deposit at the bank of a sum of money for a certain period of time, also called the maturity of the deposit. The maturity of the deposit can start from a few days, months or years [12, 16, 19].

Most banks from the Romanian system offer bank deposits with a maturity of one month to 2 years or even 48 months, but some also offer atypical periods, depending on customer needs [15, 18, 19].

One of the most complete definitions is the one given by the German economist F. Wagner according to which "credit is materialized in that act of private-economic exchange, by which a subject yields to another subject economic values such as: material goods or currency, with the reservation to have claims on them".

Credit represents the exchange of a present monetary value for a future monetary value. In other words, the loan involves a "monetary relationship that arises in connection with the granting of loans to legal or natural persons, which is to be repaid later, at maturity" [2, 8, 14, 17].

The purpose of the research is to provide an overview of the interest rates for deposits and loans that have been increasing lately as a result of increased confidence in banks.

MATERIALS AND METHODS

Commercial banks carry out operations related to lending mainly from the account of money resources obtained from attracted deposits. There are two categories of banking operations:

A. Active operations of banks that include primarily lending and securities operations. They can be characterized primarily by the repayment term, the method of paying interest, the method of repayment, the guarantees presented, but also the debtor type.

B. Liabilities mainly relate to attracting deposits (sight or term), attracting loans and issuing securities [1, 7, 8, 9, 11].

The authors have consulted a rich bibliography from the specialized literature including books, articles and specialized works. The essential information for our analysis was collected from the data sets, periodic reports and monthly bulletins of the National Bank of Romania.

The analysis was based on data of Bank of Romania [14], covering the 2015–2019 period, for the following interest rates: interest rate on time deposits in lei and euro and on categories of deposits; interest rate on loans in lei and euro and on loan types.

The collected data were processed and graphically represented, formulating the conclusions.

RESEARCH RESULTS

At the beginning of the analysis are presented (Table 1), the interest rates of new deposits at term and those existing in the balance in lei. Thus, in the case of the interest rate on new deposits in lei, there was an increasing trend on total deposits, but also by the maturity of the deposit. The trend was also upward on existing term deposits in the balance. Unfortunately, these interest rates are not enough to cover the inflation rate, so the money kept in deposits will devalue.

Table 1.

The evolution of the interest rate on time deposits in lei (% per year)

Years	Total	Initial maturity up to 1 month inclusive	Initial maturity over 1 month and up to 3 months inclusive	Initial maturity over 3 months and up to 6 months inclusive	Initial maturity over 6 months and up to 12 months inclusive
The interest rate on existing deposits in the balance					
2015	1.62	1.62	1.15	1.67	2.21
2016	1.11	0.42	0.70	1.05	1.44
2017	0.90	0.30	0.53	0.76	1.13
2018	1.38	0.66	0.94	1.49	1.64
2019	1.87	0.73	1.09	1.84	2.55
The interest rates of new deposits					
2015	1.48	1.12	1.34	1.75	1.97
2016	0.90	0.53	0.82	1.06	1.41
2017	0.79	0.40	0.72	0.96	1.79
2018	1.76	1.02	1.41	2.06	2.54
2019	1.98	0.83	1.44	2.30	3.06

Source: *www.bnr.ro* [14]

The interests at deposits remained, on average, below 2% - substantially below the inflation rate - but with decreases for the savings attracted from individuals.

The average interest rates on new deposits in 2019 reached 1.98% per year and 3.06% in the case of deposits made for periods between 6 and 12 months inclusive. On balance deposits, the overall average was 1.87% per year, reaching 2.55% per year for longer maturities.

The analysis of interest rates, for euro deposits at term is presented in Table 2. The decreasing trend of interest rates for euro term deposits was maintained until 2019 for both existing and new deposits in the balance.

Table 2.

The evolution of the interest rate on time deposits in euro (% per year)

Years	Total	Initial maturity up to 1 month inclusive	Initial maturity over 1 month and up to 3 months inclusive	Initial maturity over 3 months and up to 6 months inclusive	Initial maturity over 6 months and up to 12 months inclusive
The interest rate on existing deposits in the balance					
2015	0.78	0.35	0.48	0.65	1.10
2016	0.44	0.15	0.22	0.35	0.59
2017	0.34	0.13	0.14	0.24	0.42
2018	0.29	0.10	0.14	0.25	0.41
2019	0.20	0.07	0.11	0.13	0.25
The interest rates of new deposits					
2015	0.61	0.49	0.61	0.66	0.87
2016	0.34	0.21	0.27	0.39	0.63
2017	0.30	0.15	0.19	0.33	0.72
2018	0.28	0.13	0.20	0.35	0.57
2019	0.16	0.09	0.15	0.14	0.24

Source: www.bnr.ro [14]

From the analysis of the average interest rates on new deposits of households in euro, it decreased from 0.61% in 2015 to 0.16% per year in 2019, and in the case of new deposits made for periods between 6 and 12 months it has reduced from 0.87% to 0.24% in the analyzed period.



Figure 1. The evolution of the interest rate on term deposits in lei, existing in the balance, by types of deposits

Source: www.bnr.ro [14]

From the analysis by types of deposits in lei (Figure 2) results an increase of the interest rate in 2019, to 3.65% per year for deposits with an initial maturity over 1 year and up to 2 years inclusive and to 1.98% in the case of deposits term in lei, existing in the balance (Figure 1) with the initial maturity up to 2 years inclusive.

Depositors at banks have been caught between hammer and anvil lately, due to developments from the economy. On the one hand, they saw their savings eroded by inflation, given that the annual interest rate received from the bank was lower in most cases than rising prices over the same time horizon.

The highest interest rates on deposits are granted for those with longer terms, by small banks, but there is also a bonus for opening online deposits. Large banks generally pay lower interest on deposits, even the smallest in the market in most cases.

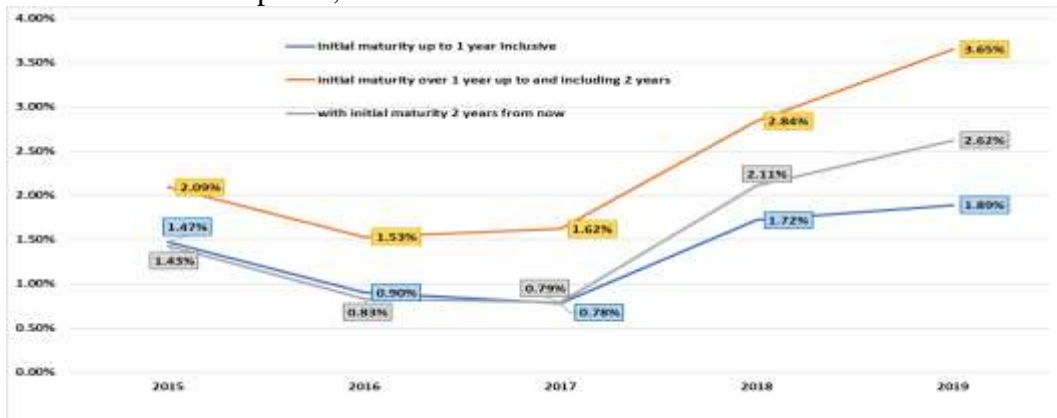


Figure 2. Evolution of the interest rate on deposits in new lei, by types of deposits
 Source: www.bnr.ro [14]

For euro deposits (Figures 3 and 4), the interest rate reaches 0.71% per year for deposits with an original maturity of more than 1 year and including 2 years and only 0.20% for existing euro deposits in the balance.

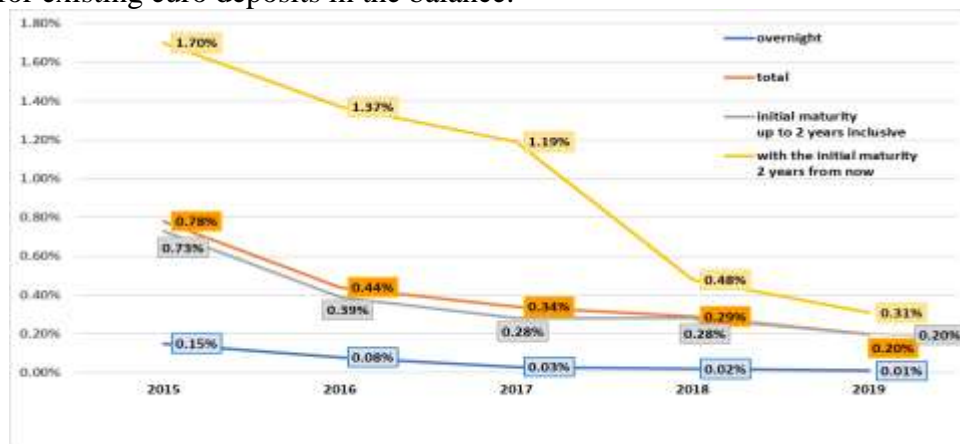


Figure 3. The evolution of the interest rate on euro deposits existing in the balance, by type of deposit
 Source: www.bnr.ro [14]

Banks on the Romanian market recorded a profit margin (the difference between interest on loans and new deposits) of 5.61% in December 2019 on the component of loans in lei for the population, down from 6.33% registered in December 2018, with 0.72 percentage points.

Interest rates required by banks at new loans in lei (Table 3) increased slightly in 2018 and decreased in 2019, especially on the segment of deposits with an initial maturity over 5 years, according to the latest data, analyzed.

In the period 2015-2018, according to the NBR data, the average global interest rates (per total loans) for loans in lei granted to the population have increased from 6.61% to 7.95% for loans on balance and from 6.61% to 8, 09% for new loans. Differentiated by types of loans, we observe a more pronounced increase in interest rates for loans under 1 year (from 9.25% to 11.58% for outstanding loans and from 6.48% to 10.43% for new loans).

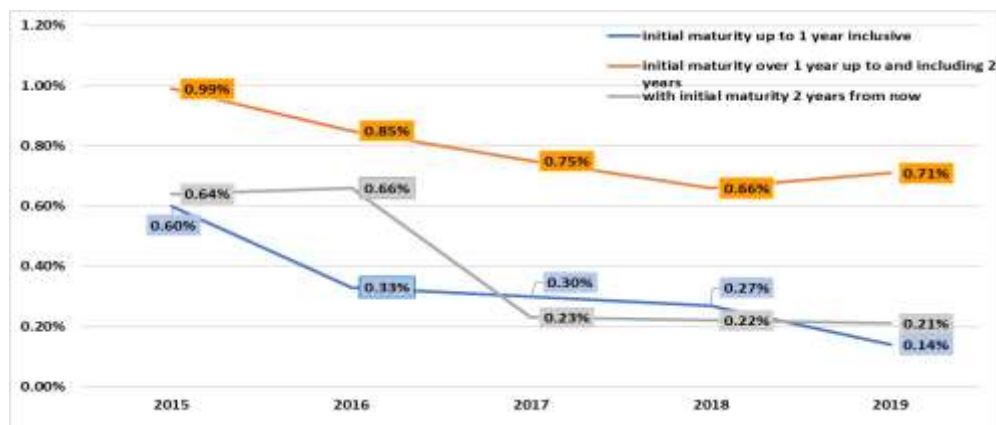


Figure 4. The evolution of the interest rate on new euro deposits by type of deposit

Source: www.bnr.ro [14]

Table 3.

Evolution of the interest rate on loans in lei (% per year)

Years	Total	With initial maturity up to 1 year inclusive	With an initial maturity over 1 year and up to 5 years inclusive	With the initial maturity over 5 years
The interest rate on existing deposits in the balance				
2015	7.56	9.25	10.64	5.20
2016	6.57	8.75	10.05	4.05
2017	6.80	9.78	9.96	4.63
2018	7.95	11.54	10.77	5.95
2019	7.69	11.58	10.50	5.80
The interest rates of new deposits				
2015	6.61	6.48	9.39	3.97
2016	6.57	5.95	9.00	3.66
2017	6.90	7.50	9.24	4.52
2018	8.09	10.63	9.73	6.06
2019	7.59	10.63	9.66	5.59

Source: www.bnr.ro [14]

Table 4.

The evolution of the interest rate on loans in euro (% per year)

Years	Total	With initial maturity up to 1 year inclusive	With an initial maturity over 1 year and up to 5 years inclusive	With the initial maturity over 5 years
The interest rate on existing deposits in the balance				
2015	4.70	10.46	5.71	4.68
2016	4.34	10.38	5.09	4.33
2017	4.26	9.32	4.77	4.25
2018	4.20	9.51	6.14	4.18
2019	4.07	9.25	6.18	4.05
The interest rates of new deposits				
2015	4.01	4.58	4.23	4.00
2016	4.11	c	5.47	3.93
2017	3.90	c	3.93	4.30
2018	4.84	c	6.13	4.76
2019	3.88	c	5.13	3.75

Source: www.bnr.ro [14]

A weighted increase was registered for loans up to 5 years (from 10.64% to 10.77% for outstanding loans and from 9.39% to 9.73% for new loans).

Analyzing the average interest rates on loans in euros (table 4), we found their increase in 2018 to 4.84% and a reduction of 0.96 percentage points in 2019.

In the case of existing loans in balance, the trend was decreasing, reaching 4.07% in 2019, less with 0.63% compared to 2015.

The loan in lei has been preferred by the population in recent years. At the end of 2018, ROBOR started to grow and Romanians who had loans have faced with interest rate risk, after others had known the foreign exchange risk.

Table 5.

Interest rate at loans in lei granted, existing in the balance by types of loans (% per year)

Years	Loans granted on account overdraft	Home loans				Total	Consume loans and other purposes		
		Total	With initial maturity up to 1 year inclusive	With the initial maturity over 1 year and up to 5 years inclusive	With the initial maturity over 5 years		With initial maturity up to 1 year inclusive	With the initial maturity over 1 year and up to 5 years inclusive	With the initial maturity over 5 years
2015	8.80	3.89	7.62	5.51	3.87	9.70	9.25	10.69	7.83
2016	8.02	3.33	6.44	4.92	3.32	9.15	8.75	10.10	6.56
2017	8.34	4.20	6.04	4.90	4.19	9.36	9.79	9.99	6.82
2018	9.72	5.67	6.20	5.77	5.67	10.44	11.54	10.80	7.96
2019	9.49	5.56	6.07	5.59	5.56	10.27	11.58	10.51	8.00

Source: www.bnr.ro [14]

Annual effective interest rate (APR), the indicator for the total cost of a loan, including both interest and commissions, on home loans (Table 6) increased from 4.17 percentage points in 2015 to 6.20% in 2018 increasing by 1.36 percentage points due to the increase in the ROBOR interbank interest rate. Also, in the category of consume loans, the annual effective interest increased by 0.20 percentage points in 2019 compared to 2015.

Table 6.

The evolution of the interest rate on new loans in lei, by types of loans (% per year)

Years	Total	Home loans					Consume loans				
		With initial maturity up to 1 year inclusive	With the initial maturity over 1 year and up to 5 years inclusive	With initial maturity Over 5 years and up to and including 10 years	With initial maturity Over 10 years	Annual average interest rate	Total	With initial maturity up to 1 year inclusive	With the initial maturity over 1 year and up to 5 years inclusive	With initial maturity Over 5 years	Annual average interest rate
2015	3.84	c	4.49	4.14	3.82	4.17	9.17	7.06	9.49	5.60	10.28
2016	3.52	c	4.57	4.21	3.48	3.83	8.92	6.55	9.06	6.10	9.94
2017	4.42	c	4.82	4.74	4.40	4.84	9.26	7.62	9.31	7.87	9.98
2018	5.81	c	6.09	6.13	5.79	6.20	9.80	14.03	9.77	9.74	10.57
2019	5.46	x	5.70	5.87	5.44	5.65	9.65	14.20	9.72	7.74	10.48

Source: www.bnr.ro [14]

Loans in euro (Table 8) became more expensive in the period under review than those in lei, because the main reason why consumers chose these loans has disappeared. For euro homes loans, the annual effective interest rate decreased in 2019 to 3.98% compared to 2017 (4.56%) and 2018 (4.35). For consumer loans in euro, the annual effective interest rate increased in 2018 (6.01%) compared to 2017 (4.38%) but decreased in 2019 (5.05%).

Table 7.
Evolution of the interest rate at loans in euro, existing in the balance by types of loans
(% per year)

Years	Loans and overdrafts	Home loans				Total	Loans for consumption and other purposes		
		Total	With initial maturity up to 1 year inclusive	With the initial maturity over 1 year and up to 5 years inclusive	With initial maturity Over 5 years		With initial maturity up to 1 year inclusive	With the initial maturity over 1 year and up to 5 years inclusive	With initial maturity Over 5 years
2015	11.24	4.17	5.66	5.40	4.17	5.71	10.78	5.75	5.70
2016	11.29	3.89	4.95	4.76	3.89	5.28	10.45	5.12	5.27
2017	11.10	3.85	4.42	5.18	3.85	5.14	9.37	4.74	5.14
2018	11.33	3.83	3.79	5.94	3.83	5.05	9.97	6.16	5.01
2019	10.07	3.73	4.07	5.29	3.73	4.91	9.35	6.23	4.87

Source: www.bnr.ro [14]

Table 8.
Evolution of the interest rate on new loans in euro, by types of loans (% per year)

Years	New loans granted to households											
	Total	Home loans					Annual average interest rate	Consume loans				Annual average interest rate
		With initial maturity				Total		With initial maturity				
	Up to 1 year inclusive	over 1 year and up to 5 years inclusive	Over 5 years and up to 10 years inclusive	Over 10 years			over 1 year and up to 5 years inclusive	over 1 year and up to 5 years inclusive	Over 5years			
2015	3.67	c	3.76	3.80	3.65	3.70	4.36	4.30	4.34	4.36	4.41	
2016	3.60	x	x	4.08	3.57	3.91	4.69	c	5.88	4.47	4.89	
2017	4.16	x	c	4.48	4.13	4.56	4.21	c	4.00	4.56	4.38	
2018	4.23	x	c	3.46	4.30	4.35	5.92	c	6.34	5.92	6.01	
2019	3.70	x	c	4.39	3.68	3.98	4.80	c	5.80	4.15	5.05	

Source: www.bnr.ro [14]

A weighted increase was recorded for interest rates on euro loans (Table 8) over 5 years to 10 years, which include mortgage loans (from 3.80% in 2015 to 4.39% in 2019 for loans in new lei).

CONCLUSIONS

From the analysis performed by the authors, several conclusions can be drawn. The interest rate is an instrument applied in the economic system of the institutions that represent the credit offer, in order to obtain profit. The gap between the interest offered and the interest received represents the center of the center of profit formation model.

Banks have a significant role in the economy as they provide financial intermediation, through the establishment of deposits and the placement of loans. With the help of loans, banks finance the needs of individuals and legal entities that send this money into the economy for consumption and investment, while through attracted deposits, banks protect the savings of the population and companies.

The performance of the domestic banking sector is characterized by the trend of improvement and evolution sustained on the one hand by the acceleration of the economy, the high degree of competition in the banking sector, the increase of the net interest margin, and on the other hand by the low level of real financing costs and downward trend in non-performing loans.

The decrease in the average interest rate on loans and deposits was due to the decline in the interest rate on loans and the increase in the interest rate on deposits.

Banks are starting to have enough money to reduce their interest rates on loans and increase those on deposits.

The strengths that could generate favorable developments for the banking sector in this decade are the prospect of continuing the process of convergence of Romania to the level of the Eurozone.

REFERENCES

- [1]. **ANGHELACHE C., BODO G., SFETCU M., MIREA MARIA**, 2017, Modelul de analiză a sensibilității indicatorilor de risc ai băncii la variația ratei, Romanian Statistical Review - Supplement nr. 12 /2017, 52-63
- [2]. **ANGHEL MĂDĂLINA – GABRIELA**, 2016, Elemente semnificative privind rata dobânzii și rolul acesteia în activitatea bancară, Revista Română de Statistică - Supliment nr. 4/2016, 91-98
- [3]. **BISTRICEANU GHE. D., NEGREA E.**, 2014, Noțiuni bancare fundamentale, Editura Economică, București
- [4]. **BREZEANU P., SIMON A., FLORESCU D.**, 2012, Tehnici și operațiuni bancare pentru administrarea afacerilor, Editura Cavallioti, București
- [5]. **CĂPRARU B.**, 2014, Activitatea bancară. Sisteme, operațiuni și practice, ed. a II-a, Editura CH Beck, București
- [6]. **DARDAC N., BARBU TEODORA**, 2009, Monedă, Editura ASE, București
- [7]. **HETEȘ-GAVRA I.**, 2009, Activitatea și operațiunile instituțiilor de credit, Editura Mirton, Timișoara
- [8]. **HETEȘ-GAVRA, R.**, 2013, Sistemul instituțiilor de credit, Editura Mirton, Timișoara
- [9]. **MEDAR L. I., CHIRTOC I. E.**, 2016, Operațiuni bancare și instituții financiare internaționale, Editura Academica Brâncuși, Târgu Jiu
- [10]. **SÎRBULESCU CLAUDIA, PÎRVULESCU LUMINIȚA, GHERMAN REMUS**, 2017, The impact of interest rate on the investment decision in savings products, Lucrări Științifice, Management Agricol, XIX (2), 213-216
- [11]. **SÎRBULESCU CLAUDIA**, 2016, Aspects Regarding the Risk in Banking Activity, Scientific Papers: Animal Science and Biotechnologies, 49 (2), 230-236
- [12]. **SÎRBULESCU CLAUDIA, PÎRVULESCU LUMINIȚA, CHIRILĂ MARIANA, CHIRILĂ D., DINCU ANA MARIANA**, 2018, Study regarding the deposits of non-government clients provided by the Romanian banking system, SGEM Conference Proceedings, V, 325-332
- [13]. *** <https://adevarul.ro>, accessed on 06.04.2020
- [14]. *** <https://www.bnr.ro>, accessed on 26.02.2020
- [15]. *** <https://www.economica.net>, accessed on 03.04.2020
- [16]. *** <https://www.capital.ro>, accessed on 05.04.2020
- [17]. *** <https://www.conso.ro>, accessed on 07.04.2020
- [18]. *** <https://www.profit.ro>, accessed on 08.04.2020
- [19]. *** <https://www.wall-street.ro>, accessed on 08.04.2020