©LUMEN Proceedings

The 16th Economic International Conference
New Challenges and Opportunities for the Economy 4.0,
May 7-8th, 2020, Suceava, Romania

Banking Deposits of Population. Characteristics in Romania

Gheorghe MOROŞAN

https://doi.org/10.18662/lumproc/ncoe4.0.2020/16

How to cite: Moroşan, G. (2020). Banking Deposits of Population. Characteristics in Romania. In C. Nastase (vol. ed.), *Lumen Proceedings: Vol. 13. 16th Economic International Conference NCOE 4.0 2020* (pp. 171-181). Iasi, Romania: LUMEN Publishing House.
https://doi.org/10.18662/lumproc/ncoe4.0.2020/16

© The Authors, LUMEN Conference Center & LUMEN Proceedings.
Selection and peer-review under responsibility of the Organizing Committee of the conference

This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited

©LUMEN Proceedings

Banking Deposits of Population. Characteristics in Romania

Gheorghe MOROŞAN[1]

Abstract

Starting with the classical theories regarding the economic growth and until now, the accumulation of capital has been given an important role. Along with technological progress and specialization of the labour force, saving is considered a source of economic growth. This paper aims at analysing the savings of the population placed in bank deposits during the period between 2015 and 2019 in Romania. The study focuses on analysing the dynamics of deposit volume and virtually anyone who saves and then invests (in our case investments in bank deposits) expects to obtain an income, a certain yield, a reasonable return. Comparing the interest rates on bank deposits with the inflation rate but also with other interest rates, we want to determine how profitable these investments are for the population. This study examines whether the level of interests on bank deposits placed by individuals in Romania is attractive enough to stimulate savings, given that the country needs capital for development.

Keywords: *savings; bank deposits; interest; banks; time deposits; overnight.*

[1] Ștefan cel Mare University of Suceava, Romania, morosang59@gmail.com

https://doi.org/10.18662/lumproc/ncoe4.0.2020/16
Corresponding Author: Moroşan Gheorghe
Selection and peer-review under responsibility of the Organizing Committee of the conference

1. Introduction

Saving is the process by which part of income is not consumed. The difference between income and expenditure is represented by savings. These are the amounts of money that remain at the disposal of households.

Keeping economies safe is necessary because there are a number of threats such as theft, damage, but also inflation, which generates situations where saved money loses its purchasing power.

The standard of living depends on saving and on the population growth rate. The Solow-Swan model is a model of long-term economic growth, established within the neoclassical theory. It attempts to explain long-term economic growth by analysing capital accumulation, labour force or population growth and technological progress. Mathematically, the Solow-Swan model is a nonlinear system consisting of a single ordinary differential equation that models the evolution of capital stock per capita.

So this theory shows once again why we need to save and how important saving is for economic growth. According to it, an optimal level of saving can be determined, an optimal level of capital in the economy that ensures the maximum possible consumption, "the golden rule" of capital). [10]

This theory is still valid today because it is found that the negative effects of the crisis are greater in countries dependent on capital flows from abroad (Romania is one of them). [1] Thus, stimulating domestic savings through appropriate economic policies is essential in the case of Romania, thus being able to limit the dependence on foreign capital inflows in the next period, in which we need to finance a large volume of investments.

„The prospects for the economic growth are given by the current characteristics of the saving process, because the current economies can represent the financing source of both the innovations for the increase of the capital productivity and of the service of the public debt." [3]

In any society, economies have played a particularly important role, both at the macroeconomic level and at the individual level. There are a number of factors that influence each person's decisions to give up a present gain or advantage (determined by the use of currently available funds) in favour of a future advantage (determined by saving and investing these funds for future use), but the saving processes are present to a greater or lesser extent, in the longer or shorter terms and in very different ways at the level of each individual and each country. [2]

It is unanimously acknowledged that saving is an important variable of economic growth, being influenced by the following factors: [5]

A. demographics - the age structure of the population affects saving (in Franco Modigliani's view people save for the retirement period while working and spend when they are old), "the essential difference between the permanent income hypothesis and the life cycle hypothesis lies in assessments made on the dimension of life." [6]

B. the macroeconomic environment that can be characterized by:

1. the evolution of GDP;

2. the amount of income available to economic agents;

3. the level of the interest rate, as the main impetus of those who obtain income in saving them; [4], [8]

4. the forecast evolution of prices or in other words the anticipated evolution of inflation.

C. the state fiscal policy - high taxation is not likely to encourage saving and investment in financial assets. Lack of public funds for pensions, social assistance or health care can cause concern for precautionary savings.

D. institutional factors - the development of the financial system, the number and value of loans can affect the volume of precautionary savings (when the volume of credits in the economy is large, the loan conditions are assumed to be more relaxed and as such the need for precautionary savings is lower).

Savings can participate in financing the economy in several ways:

- investment in financial assets,
- direct investment,
- investment in an intermediary institution that further decides how to invest savings.

Choosing the most appropriate ways of saving and then investing can prove to be difficult processes, considering a number of factors such as: the multitude of available instruments, the instability that certain markets cross, the economic recession or inflation. Under these conditions, there is the problem of choosing an appropriate saving instrument, which would offer the safest maintenance of these savings, but also their multiplication over time, practically transforming from a saving instrument to an investment one.

The multiplication of economies must provide them with protection against inflation, and bring real profit, under conditions of acceptable risk.

The main ways to invest the amounts saved are: [12]

- deposits - amounts held in accounts, deposit slips with banks or other financial institutions;
- state securities;
- securities in investment funds;
- shares and bonds of companies, listed on the stock exchange;

- investments in futures markets (futures and options contracts);
- other investment methods - insurance policies (life insurance) and other instruments of insurance companies, direct investments in unlisted companies, real estate investments, investments in pension funds, alternative investments (gold, antiques, works of art).

2. Database – Analysis and results

The proposed study starts from some general hypotheses related to the factors that may influence savings of the population and from the finding that most of the savings of the population in Romania are placed in various forms of bank deposits.

This is due to the fact that the Romanian financial system is dominated by banks - "*the banking sector remains the segment with the largest proportion in the financial system (74.1 percent).*" [11], there are too few financial instruments to invest savings and the population has little financial knowledge to be able to invest in other markets.

From a theoretical point of view, saving and investing in bank deposits are influenced by a number of negative but also positive factors.

The savings of the population and their placement in bank deposits are adversely affected by factors such as:

- temporary loss of confidence in the banking sector, as a result of bankruptcy and liquidity crises (in 2000, 2002, 2007);
- a major change in the behaviour of the population, in the sense of accentuating the appetite for consumption (2003-2007); [9]
- increasing or maintaining attractiveness for other types of assets, such as: treasury certificates, competitors of bank deposits, especially until 2004, shares traded on BSE, real estate investments; [7]
- increasing the population's indebtedness and implicitly of the payments made by it on account of the contracted credits;
- recording a real negative level of interest rates on time deposits;
- tightening of the tax regime of interest income, likely to affect the attractiveness of bank investments.

The 10% tax on interest on time deposits, made from money already taxed with income tax, is also a factor that distorts the market not only an unfavourable factor of saving (an example would be the following: with the diversification of the saving options proposed by banks products that encourage parents to make deposits for their children after the age of 18 have been created. In this case, the account holder is the child who is taxed at 10% of the interest received, although these savings do not affect

immediate consumption; in addition, he participates for a long time in the development of the financial system.

In a positive sense, the demand for time deposits of the population is influenced by:

- increase of the revenues of this segment (having as sources the increase of salaries, transfers from the state budget and remittances from abroad),
- reduction of the income tax rate from 16% to 10%,
- maintenance of the low area and volume of financial investment alternatives.

Below, we present the evolution of bank deposits established by the population households during the last 5 years. The total bank deposits of the population increased, in nominal terms, by over 51% in the last 5 years, reached over 222 billion lei as of 31.12.2019 and is about 20% of the GDP forecast for 2020.

Table 1. Deposits evolution of households during 2015-2019 (bil. lei)

Data	Total deposits of households	Total overnight deposits	Overnight deposits in lei	Overnight deposits Foreign currency	Total deposits on terme	Deposits on terme in lei	Deposits on terme Foreign currency
2019	222.398,9	103.848,4	59.587,4	44.261,0	118.550,5	71.547,0	47.003,4
2018	198.726,3	85.196,6	50.548,1	34.648,5	113.529,7	69.813,6	43.716,1
2017	178.659,8	70.890,4	43.995,3	26.895,1	107.769,4	67.558,2	40.211.2
2016	163.462,0	55.481,1	35.205,5	20.275.6	107.980,9	68.437,2	39.543,7
2015	146.780,3	39.900,1	24.701,2	15.198,9	106.880,2	66.979,3	39.900,9

Source: Own elaboration using data from NBR, https://www.bnr.ro/Baza-de-date-interactiva-604.aspx [13] [14]

The table highlights the evolution of bank deposits, resulting in a continuous increase in nominal terms, their growth rate being about 11% each year.

The following data presented in tables no. 2 and no. 3 highlights the evolution of the deposit structure.

Table 2. Overnight deposits evolution of households during 2015-2019 (bil. lei)

Data	Total deposits of households	Total overnight deposits	Overnight deposits in lei	Overnight deposits in euro	Overnight deposits in other currencies	Deposits of households on time	Total deposits on terme in lei
2019	222.398,9	103.848,4	59.587,4	39.008,2	5.252,8	118.550,5	71.547,0
2018	198.726,3	85.196,6	50.548,1	30.124,2	4.524,3	113.529,7	69.813,6
2017	178.659,8	70.890,4	43.995,3	22.599,7	4.295,4	107.769,4	67.558,2
2016	163.462,0	55.481,1	35.205,5	16.824,4	3.451,2	107.980,9	68.437,2
2015	146.780,3	39.900,1	24.701,2	12.540,8	2.658,1	106.880,2	66.979,3

Source: Own elaboration using data from NBR, https://www.bnr.ro/Baza-de-date-interactiva-604.aspx

There is a spectacular increase, more than a doubling, in 2019 compared to 2015, of Overnight deposits, from about 40 billion to over 103 billion lei. And time deposits increased by 11%, a less spectacular evolution compared to Overnight.

Table 3. Deposits on terme evolution of households during 2015-2019 (bil. lei)

Data	Total deposits of households on terme	Total deposits on terme in lei	Term deposits in lei with maturity up to 1 year inclusive	Term deposits in lei with a maturity of more than 1 year	Total deposits in foreign currency	Term deposits in Euro	Term deposits in Euro with maturity up to 1 year inclusive	Term deposits in Euro with a maturity of more than 1 year	Total deposits on time in other currencies	Term deposits in other currencies with maturity up to 1 year inclusive	Term deposits in other currencies with a maturity of more than 1 year
2019	118.550,5	71.547,0	51.750,9	19.796,1	47.003,4	40.755,1	36.046,7	4.708,4	6.248,3	5.868,1	465,2
2018	113.529,7	69.813,6	53.273,4	16.539,2	43.715,9	37.293,9	34.128,0	3.165,9	6.422,2	6.044,1	378,1
2017	107.769,4	67.558,2	52.358,4	15.199,8	40.211,2	34.420,9	31.307,9	3.113,0	5.790,3	5.438,5	351,8
2016	107.980,9	68.437,2	54.599,9	13.837,3	39.543,7	33.786,5	31.060,5	2.727,0	5.756,2	5.377,4	378,8
2015	106.880,2	66.979,3	54.774,5	12.204,8	39.900,9	34.411,5	31.659,7	2.751,8	5.489,4	5.092,7	396,7

Source: Own elaboration using data from NBR, https://www.bnr.ro/Baza-de-date-interactiva-604.aspx

Also related to terms, the figures presented in the tables indicate that a large part of the savings of the population are placed in Overnight deposits, usually in current accounts (47% of the total). Regarding time deposits, most

have a maturity under one year 79%) and only 21% are placed with maturities over one year.

Regarding the saving currency, most deposits are in lei (131,134.4 billion lei, respectively 58.9%), followed by savings in Euro (79,763.3 billion lei, 35.9%) and other currencies, 5.2 %. The growth rate of savings in the analysed period is approximately the same, 44.8% in foreign currency and 43.0% in lei.

The following section refers to the analysis of the yield with which the savings of the population are placed in bank deposits. A representative series of interest rates on the banking market were considered, starting with ROBOR / ROBID (interest rate on deposits placed by banks / interest rate deposits attracted by banks), the monetary policy interest rate (the interest rate set by the NBR), the interest rate on the deposit facility (the interest rate offered by the NBR, the banks that make deposits with it) and several average interest rates offered by credit, to individuals who constitute deposits for various periods of time.

Last but not least, the evolution of the inflation rate in the period 2015-2019 was highlighted as the main indicator of the "financial health" of the Romanian economy.

This analysis aims at highlighting the profitability of placing the savings of the population in bank deposits, knowing that inflation decreases purchasing power.

Table 4. Comparison between different interest rates and the inflation rate during 2015-2019 (%)

Data	ROBOR at 3 months	ROBID at 3 months	Inflation rate	Interest on monetary policy	Interest rate at the deposit facility	Interest rate on term deposits existing in the balance; households	Interest rate on overnight deposits; households	Interest rate on new term deposits; households
2019	3,18	2,86	3,8	2,50	1,50	1,87	0,06	1,98
2018	2,70	2,70	4,6	2,50	1,50	1,38	0,07	1,76
2017	1,66	1,66	1,3	1,75	0,75	0,90	0,06	0,79
2016	0,90	0,46	-1,5	1,75	0,25	1,11	0,13	0,90
2015	1,02	0,59	-0,6	1,75	0,25	1,62	0,22	1,48

Source: Own elaboration using data from NBR, https://www.bnr.ro/Baza-de-date-interactiva-604.aspx

At first glance, it can be seen that inflation in Romania increased from -0.6% in 2015 to 4.6% in 2018 and then to 3.8% at the end of 2019. At the same time, interest rates had the same evolution.

However, if we analyse carefully we will find that the interest rates offered by credit institutions have been well below the inflation rate starting with 2017. Thus, in 2017, the inflation rate was 1.3% and the interest offered by credit institutions was between 1.11% and 0.13%. In 2018 the same thing happened.

3. Causes, implications and consequences

From what has been shown so far, it can be seen that the population making savings has not yet learned that this operation is carried out with a precise purpose in mind, in order to obtain the highest possible yield. It is not enough to save money without pursuing this goal.

Those who save because it is so good (even if it is a positive thing) fail to increase their savings and most of the time even record losses.

„As can be seen, the main characteristics of saving in Romania are:

- the savings of the population are poorly diversified, mainly in cash and bank deposits,
- the only savings instruments that have competed with bank deposits in recent years have been government securities,
- in Romania, savings have been evolving for many years in the absence of an alternative, as there are no other instruments with high yield potential,
- this allowed banks to repay the deposits corresponding to imperfect competition.

The money saved in bank not only does not remain with the same purchasing power, but even brings its reduction. This has grown since 2017, due to interest rates, which are twice lower than the inflation rate. In 2018 deposit interest rates were three times lower than the inflation rate.

The interest rates offered by banks today for the Romanian savings are no longer related to the market realities. Since the end of 2016, the policy of attracting deposits has totally decoupled from the situation in the economy.

Despite rising inflation and ignoring the interest rate hikes decided by the NBR, the average return on deposits between three and six months (the most used) fell to an all-time low of only 0.79% at the end of 2017.

Specifically, the one who made a one-year deposit at the end of 2017, lost 3.81% of the amount deposited, i.e. the difference between the average interest rate of 0.79% and inflation at the end of 2018 of 4.6%.

Therefore, a depositor who collects a lower interest rate than inflation decreases his purchasing power, having the opportunity to buy fewer products.

Moreover, there are situations when bank deposits bring actual losses, i.e. the depositor withdraws less money than he deposited. This is possible due to the practice by banks of account administration fees or cash withdrawal.

The causes that led to this state of affairs are: lack of information, risk aversion, lack of viable alternatives and compromise of financial investment and savings institutions.

Romanian banks mostly offer variable interest rates. This is because, in the contract he signs, it is very clear to the depositor that, in determining the interest rate, the evolution of market interest rates is taken into account.

In relation to the inflation rate, passive interest rates remained at a non-stimulatory level for saving and not covering the inflation rate.

Other figures show a poor financial preparation of the population, because, as shown above, 47% of the total are Overnight deposits, unpaid with almost nothing (0.06% being the average interest per year).

4. Conclusions

According to the Solow model, the more a nation saves and invests, the higher the standard of living of that nation's individuals is. Romania, which starts from a lower level than the optimal level of capital, needs a higher saving rate.

This can be achieved by increasing the savings made by the government (lowering public spending and increasing public revenues) and increasing the appetite of the population to save.

"Stimulating domestic savings must be a priority in an economic and political environment favourable to them. Saving needs a solid business environment that can sustainably secure jobs and increase labour productivity; in this way, both the confidence of the population and its sustainable income increase. In fact, the achievement of such a desideratum is part of the policies of achieving nominal and real convergence and increasing the competitiveness of the Romanian economy." [3]

Although there is a more than vigorous increase in the saving of the population through banks, this is not due in any case to the attractiveness of interest rates offered by credit institutions. the desire of those who save not to risk investing in risky financial instruments, the fear of thefts, the security offered by the FGDB by guaranteeing the return of savings in case of bank failure.

Unfortunately, there is a series of obstacles to saving such as:

- the remuneration of bank deposits is not stimulating, at least for the last three years, the population who saves money loses it,
- money is also lost due to poor financial training of the population,
- the poorly diversified Romanian financial market has allowed the creation of a monopoly of banks that effectively dictates interest rates on the market,
- in general, saving suffers due to the lack of alternatives, with reference to the few saving instruments and institutions,
- the state, by taxing interest income, does not stimulate saving.

Some proposals to exit from this situation refer to:

- financial education must increase in order to be able to know more about saving tools and methods and because the risks of saving placements will increase,
- development of the financial market with the participation of the state, in order to reduce the monopolistic influence of the credit institutions on the deposit market.

This study draws attention to the obstacles to saving and creating capital so necessary for the future development of the Romanian economy.

It can be continued by analysing the bank deposits of the population in foreign currency. Another direction is the analysis of the factors that influence savings in Romania.

References

[1] Copaciu M, Mihăescu F. Trăsături ale economisirii populaţiei în România, Simpozionul „Aspecte ale procesului de economisire în România", BNR; 2009.
[2] Denizer C, Holger C. The Saving Collapse during the Transition in Eastern Europe. Working Paper no. 2419. Washington DC: The World; 2000.
[3] Dănilă N. Economisirea şi perspectivele creşterii economice, Zilele porţilor deschise pentru studenţii economişti, Constanţa; 2011.
[4] Elmendorf D. The Effect of interes rate changes on household savings and consumption: A survey. Federal Reserve; 1996. Available from: http://www.federalreserve.gov/pubs/feds/1996/199627/199627pap.pdf.
[5] Masson P, Bayoumi T, Samiei H. Determinants of private Saving. Working paper/95/51, International Monetary Found; 1995.
[6] Modigliani F, Ando A. The Life Cyde Hypothesis of Saving: Aggregate Implications and Tests, American Economic Review; 1963.
[7] Neagu F. Impactul economisirii asupra sistemului financiar-bancar, Simpozionul „Aspecte ale procesului de economisire în România", BNR; 2009.
[8] Orr AE, Malcolm KM. The Determinants of Real Long-Term Interest Rates, OECD Economics Department Working Papers No. 155; 1995.

[9] Prelipcean G, Boscoianu M. Model stochastic dinamic de tip decizional consum economisire pentru ajustarea ofertei de produse şi servicii în acord cu accesibilitatea consumatorilor, Amfiteatru Economic, Vol. XVI, nr. 35; 2014.
[10] Solow MR. Contribution to the theory of economic growth, Quarterly Journal of Economics, 1956, pp. 58-83.
[11] BNR. Raport asupra stabilității financiare, decembrie 2019, 59 p.
[12] FGDB, Percepții, atitudini şi comportament de economisire în România, Prezentare susținută de Mercury Research; 2014.
[13] Banca Naţională a României. Bază de date interactive. Available from: https://www.bnr.ro/Baza-de-date-interactiva-604.aspx, accessed on 20.04.2020
[14] FGDB. Available from: https://www.fgdb.ro/__home__, accessed on 20.04.2020