# THE EVOLUTION OF MONETARY INDICATORS DURING THE PANDEMIC IN ROMANIA

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#### Abstract:

The Covid 19 pandemic has made its presence felt in various sectors and aspects of life, one of the areas being the economic one. In this sector, the pandemic period can be compared to a major financial crisis. One of the main indicators that determine the state of the economy is the evolution of the interest rate. The purpose of this paper is to observe, during the pandemic period, respectively February 2020 - November 2021, the evolution of the interest rate in terms of monetary policy, lending facility but also the deposit facility, systemically, to provide an overview of the impact on which the pandemic had on it. The main conclusions of this article highlight the effect of Covid 19 pandemics on the evolution of the interest rate of Romania.

**Key words:** deposits, loans, interest rate, COVID -19 pandemics.

JEL classification: E 43, E 51

## THEORETICAL BACKGROUND

The coronavirus changed the way people live, work, shop, spend and invest. There was an increase in spending on healthcare, as the pandemics spread and the incidence and the mortality rate increased. Leoni (2013) observed that severe diseases affect the banking sector by decreasing the deposits, population using cash withdrawals for treatments and healthcare<sup>1</sup>. At the same time, an increase in loans occurs, as the savings cannot cover all the expenses of the treatments and healthcare<sup>2</sup>. Gong, Jiang & Lu (2021) found that pandemic is associated with higher loan spreads, but smaller loan sizes<sup>3</sup>. On the contrary, Levine et al. (2021) bring evidence that higher local COVID-19 infection rates reduce spending and increase deposits, the cause being population anxiety regarding future incomes<sup>4</sup>.

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<sup>&</sup>lt;sup>1</sup> Leoni, P.L. (2013), *HIV/AIDS and banking stability in developing countries*, in Bulletin of Economic Research, Vol.65, No.3, pp.225-237.

<sup>&</sup>lt;sup>2</sup> Lagoarde-Segot, T., Leoni, P.L. (2013), *Pandemics of the poor and banking stability*, in Journal of Banking and Finance, Vol.37, No.11, pp.4574-4583.

<sup>&</sup>lt;sup>3</sup> Gong, D., Jiang, T., Lu, L.P., (2021), *Pandemic and bank lending: Evidence from the 2009 H1N1 pandemic*, Finance Research Letters, Vol. 39.

<sup>&</sup>lt;sup>4</sup> Levine, R., Lin, C., Tai, M.Z., Xie, W.S., (2021), *How Did Depositors Respond to COVID-19?*, Review Of Financial Studies, Vol. 34, No.11, pp. 5438-5473.

Nusratullin et al. (2021) highlight that closure of borders, the shutdown of production, social distancing and quarantine measures will reduce the profitability of businesses, and both companies and individuals will spend the savings and may need loans to can carry on their activities, therefore the banking risk will increase<sup>5</sup>. Bongini et al. (2019) noted that in times of crisis, as the COVID-19 pandemic seems to be, banks often pursue conservative policies for preserving their profitability, but such policies only put more pressure on the economy and labor market that can lead to a decrease of deposits and an increase of loans<sup>6</sup>. As Kodasheva et al. (2020) suggest, regulatory relief and a monetary policy that supports lending will ensure business continuity and in the long term will allow banks to recover losses<sup>7</sup>. The same conclusion was drawn by Skrabka (2021) which enhances the need for more balanced regulations in the banking sector in a time of crisis<sup>8</sup>.

The purpose of this paper is to study the coronavirus pandemic in the case of the Romanian bank sector by highlighting the evolution of deposits and loans, as well as their interest rate. The aim is to investigate the behavior of Romanian populations regarding saving and spending, as well as the bank's policies during pandemics.

The paper begins with the presentation of the background of the study, following the research methodology. The next section displays the results of the study and the discussions. The last section is dedicated to conclusions and recommendations.

## MATERIALS AND METHODS

The present paper aims to analyze the impact that the COVID 19 pandemic on deposits and loans reported in Romania, both in RON and in Euro. This article also tries to analyze the discrepancies found between deposits and loans offered to individuals and economic entities. For the purpose of the paper, the present research uses specific means of descriptive research. Therefore, the research methods applied in this paper are: the method of bibliographic study, the method of comparison, the method of synthesis and the graphic method. For the analysis of the indicators, the data provided by the National Bank of Romania were taken over, between January 2019 and November 2021.

### RESEARCH RESULTS

The evolution of the main monetary indicators during the pandemic period is a relevant study to observe the state of the economy. To fully understand all aspects, this article analyzes, the total volume of deposits together with the interest rate on deposits, as

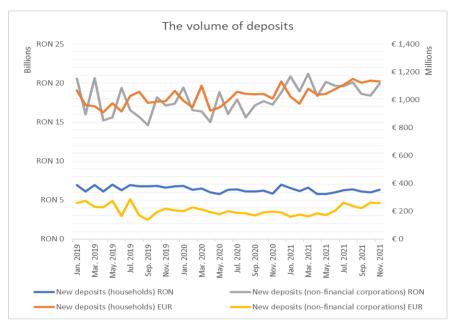
<sup>6</sup> Bongini, P., Cucinelli, D., Dibattista, M.L., Nieri, L., (2019), *Profitability shocks and recovery in time of crisis evidence from European banks*, Finance Research Letters, Vol. 30, pp.233-239.

<sup>&</sup>lt;sup>5</sup> Nusratullin, I., Mrochkovskiy, N., Yarullin, R., Zamyatina, N., Solntseva, O., (2021), *The Financial Implications of the Coronavirus COVID-19 Pandemic*: A Review, Cuestiones Politicas, Vol. 39, no. 68, pp. 325-342.

<sup>&</sup>lt;sup>7</sup> Kodasheva, G., Azhmuxamedova, A., Arynova, Z., Amangeldykyzy, S., Nurgul, T., Kabdullina, G., Kabidenovna, S., Armanai, S., Amerzhanova, D.A., (2020), *Impact Of The Covid-19 Coronavirus Pandemic On The Financial Stability Of The Banking Sector In Kazakhstan*, in Bulletin Of National Academy Of Sciences Of The Republic Of Kazakhstan, Vol. 6, No. 388, pp. 172 – 180.

<sup>&</sup>lt;sup>8</sup> Skrabka, J., (2021), *The moratorium on loan repayments during the Covid-19 Pandemic in Europe: a comparative analysis of loan moratoria in selected European countries*, in Juridical Tribune-Tribuna Juridica, Vol. 11, pp. 291-301.

well as the total volume of loans together with the interest rate on loans, both in the case of households and non-financial companies.



**Fig 1**. The volume of deposits *Source:* Own processing based on data published by National Bank of Romania<sup>9</sup>

The volume of new deposits in Euro offered to households, although the oscillation of values is quite large in January 2019, the volume being approximately 1,000 million Euros, in March 2019 it reaches 950 million. These fluctuations can be seen much better between February 2020 and November 2021 when the maximum is 1,151 million lei in August 2021. This so-called increasing slope of the volume of deposits in the Euro can be determined due to the effects that the Covid Pandemic 19 has had in Romanian. It also implies a lack of confidence in the national currency, due to inflation.

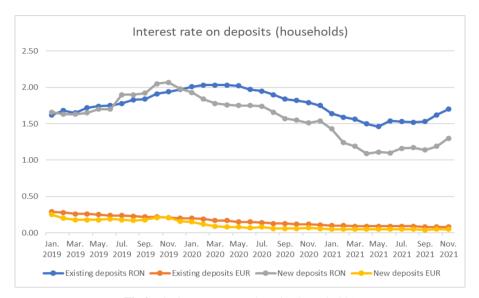
The volume of new deposits in Ron offered to households, tends to remain linear with some insignificant oscillation, the maximum point is in December 2020 reached the amount of 6,986 million, and the minimum point is in May 2021 when a volume of only 5,795 million is recorded. The pandemic period does not seem to leave a significant mark, although we find a slight downward trend in February 2020, there is no spectacular loss.

The volume of new deposits in Euro offered to non-financial corporations is marked by certain downward oscillations, the minimum point being in September 2019 when approximately 140 million are registered, followed by an increase until February 2020 when 227 million are registered. In the period February 2020 - May 2021, a little volatility can be observed with a downward trend, and later in June 2021, a significant increase can be observed, which represents a return to normal.

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The volume of new deposits in RON offered to non-financial corporations is marked by extreme volatility, even if the minimum point is September 2019, when only 14.603 million are recorded, however, we find a growing reluctance between February 2020 and November 2020. This is followed by a period of growth in which we also meet the maximum point of 21.182 million in March 2021.



**Fig 2.** The interest rate on deposits (households) *Source:* Own processing based on data published by National Bank of Romania <sup>10</sup>

The graph above shows that between February 2019 and August 2019, the interest rate on existing bank deposits in Euro is slightly downward, while the interest rate on existing new deposits stagnates except for June and July 2019.

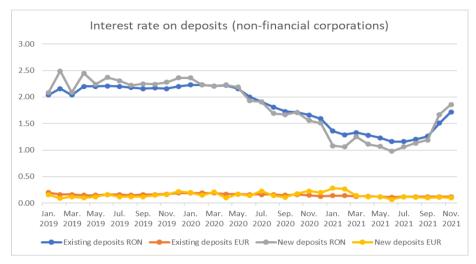
The Covid 19 pandemic, which starts in November 2019, is fully felt in Romania only in February 2020, but the effects it has on the euro interest rate can still be observed. The first fact to mention is that from December 2019 until June 2020 the interest rate seems to decrease drastically in terms of new deposits in Euro, and then stabilize between December 2020 and November 2021 at a minimum threshold. Regarding the existing deposits in Euro, the interest rate seems to persist in a downward slope but is stable to some extent until February 2020. The slope becomes much steeper between February 2020 and November 2021.

Regarding the existing deposits in RON, the interest rate is increasing from 1.66% in January 2019, reaching in February 2020 the maximum of 2.03%, at this point it stagnates until April 2020, following that from May 2020 to be sloping until May 2021 when it reaches 1.46%. The next period seems to be in an upward trend, recording 1.7% in November 2021.

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Regarding the interest rate on new loans in Ron, from January 2019 to March 2019 there is a trend of stagnation. In April 2019 it is registered 1.65% and the trend is that of growth that culminates with the period of November 2019 when the maximum of 2.09 is registered. The downward period seems to be between December 2019 when 1.98 is recorded, which ends in April 2021 when the interest rate reaches 1.09%. The period May 2021-November 2021 is marked by growth.



**Fig 3.** The interest rate on deposits (non-financial corporations) *Source:* Own processing based on data published by National Bank of Romania <sup>11</sup>

Regarding the interest rate on Euro deposits offered to non-financial corporations, we note that for the most part from January 2019 to November 2021, the interest rate on existing deposits stagnates being almost linear. It can also be seen that the interest rate on new deposits in Euro seems to be slightly increasing in December 2019, followed by a wave of fluctuations until August 2020. Between September 2020 and January 2021 the trend is to increase by a maximum of 0.28 %. It can be seen that from February 2021- March 2021 the trend is decreasing, followed by the period March 2021-November 2021 when there is a stagnation with slight fluctuations.

Regarding the interest rate in RON for non-financial corporations, we can see that in the period January 2019-April 2019 it is in a slight fluctuation. In the period April 2019-February 2020, there is an increase culminating in a maximum of 2.23%, following a decreasing course that ends in July 2021 when a minimum of 1.16% is registered. Subsequently, between August 2021 and November 2021, a new ascending line is built.

If we talk about the interest rate on new deposits in RON for non-financial corporations, between January 2019 and April 2019 the volatility is much more pronounced, the maximum of 2.49% being recorded in February 2019. It can be seen that in the period May 2019- January 2020 there is a fluctuation with a slightly upward trend, followed by a quieter period in February 2020- May 2020. However, there is a significant decrease in May

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2020-June 2021, being recorded in June 2021 at a minimum of 0.98%. The period June 2021-November 2021 is determined by the increase, the most significant being expressed between September 2021 and October 2021 in which there is an increase of 0.48%.

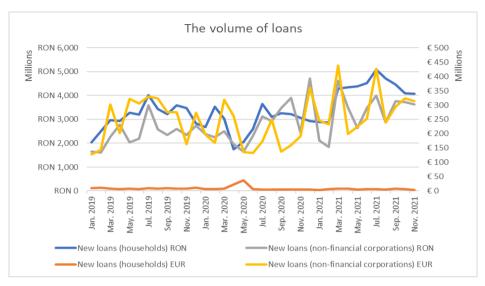


Fig 4. The volume of loans

Source: Own processing based on data published by National Bank of Romania 12

Regarding the volume of new loans in Euro offered to households, we can see that it tends to stagnate, being influenced only by the pandemic effects that cause an increase in February 2020 and reach the highest level of about 37.5 million in May 2020 following that it's stabilized, the minimum point is reached in January 2021 at 3.5 million.

Regarding the volume of new loans in RON offered to households, we can see that it is characterized by a period of growth from January 2019 to July 2019, followed by a decrease that lasts until January 2020. The period January 2020 - February 2020 registers an increase significantly, and then there will be a decrease in which the minimum point is 1,742 million in April 2020. From May 2020 we can see an upward trend, which registers in July 2021 a volume of 5,086 million.

When we talk about the volume of new loans in Euro offered to non-financial corporations, we can see that January 2019 to July 2019 is an upward trend. In the next period, August 2019- February 2020, we find a downward trend. In March 2020-November 2020 some oscillations are somehow in decline. And in December 2020-November 2021 there is an inclination towards increasing the volume. The maximum is 437 million and is registered in March 2021, the minimum of 128 million is registered in January 2019.

Regarding the volume of new loans in RON offered to non-financial corporations, in January 2019-July 2019 we have an upward trend, followed by a decreasing trend from August 2019 - May 2020. From June 2020 there is an upward trend

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registering here the point of maximum namely 4,713 million, in December 2020. The minimum value was registered in February 2019, namely 1,607 million.

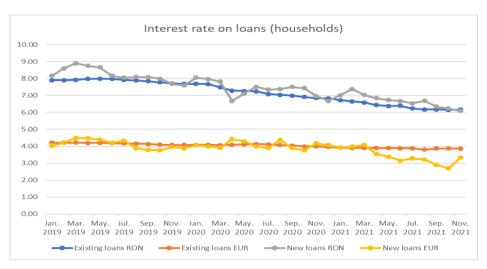


Fig 5. The interest rate on loans (households) Source: Own processing based on data published by National Bank of Romania 13

Regarding the interest rate on existing household's loans in Euro, we are dealing with a slight slope with few oscillations, the maximum recorded is in January 2019, the minimum recorded is in August 2021.

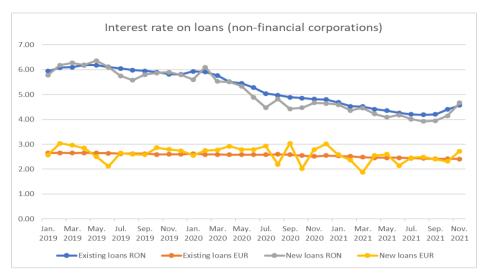
Regarding the interest rate on new loans for households in Euro, they increase between January 2019 and March 2019, reaching the maximum threshold of 4.5%, and then in the next period to decrease until October 2019 to point 3.76%. Between November 2019 and March 2020, there is a slight upward trend, and then these increases can be found between April and September 2020. The period October 2020-March 2021 is characterized by stagnation, April 2021-October 2021 is characterized by a decrease that registers the minimum threshold of 2.69% in October 2021, October 2021-November 2021 is characterized by the increase.

Regarding the existing RON loans, the interest rate is increasing from January 2019 to June 2019, registering a maximum of 8.16%. From July 2019 you can see a slope that culminates with a minimum value of 6.15% in October 2021.

Regarding the new RON loans, the interest rate is increasing between January 2019 and March 2019, registering in March 2019 at 8.90%. Between April 2019 and December 2019 it is declining. The year 2020 seems to start with an increase registered in January 2020, and then to observe a very pronounced decreasing trend in March 2020, there are some oscillations but we find the minimum recorded figure is in November 2021, namely 6.10%.

<sup>13</sup> https://www.bnr.ro/StatisticsReportHTML.aspx?icid=800&table=580&column=&startDate=01-01-2019&stopDate=30-12-2021 and

https://www.bnr.ro/StatisticsReportHTML.aspx?icid=800&table=581&column=&startDate=01-01-2019&stopDate=30-12-2021



**Fig 6.** The interest rate on loans (non-financial corporations) Source: Own processing based on data published by National Bank of Romania<sup>14</sup>

Regarding the interest rate on Euro loans offered to non-financial corporations, we note that although the stagnant feature predominates, however, a slightly decreasing trend can be observed from February 2020, the maximum recorded is 2.66% in February and April 2019 and the minimum of 2.41% is registered in November 2021.

We can observe an increase between January 2019 and February 2019, which is followed by a downward slope until June 2019, when it is 2.12%. The period August 2019- July 2020 is predominantly increasing, but it should be noted that the period August 2020 - April 2021 is very high volatility, recording both a maximum of 3.04% in September 2020 and a minimum of 1.87% in March 2021, being followed by a period of stability between April 2021 and October 2021, only to find a slight increase later.

When we analyze the interest rate on existing loans in RON offered to nonfinancial corporations, we notice that there is an increase from January 2019 to June 2019 in which we meet the maximum point of 6.18% in May 2019, followed by a period of slight decrease from July 2019 until in January 2020. From February 2020 we observe a downward slope that culminates with a minimum point of 4.19% in August 2021, followed by a slight increase.

Regarding the interest rate on new loans in RON offered to non-financial corporations, the increase period is from January 2019 to May 2019, the maximum point being 6.36% followed by a decrease until August 2019. The next period is characterized by an increase until February 2020, which is followed by a period of volatility characterized as a decline culminating in the value recorded in August 2021, namely the minimum value of 3.92%. Between August 2021 and November 2021 there is an upward trend.

<sup>14</sup> https://www.bnr.ro/StatisticsReportHTML.aspx?icid=800&table=580&column=&startDate=01-01-2019&stopDate=30-12-2021 and

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#### CONCLUSION

The banking financial sector is one of the most important economic indicators, it largely dictates the financial health of a given state. Following this study, we can see that there is an impact of the pandemic period, respectively February 2020 - May 2020, in which both the rate and the volume of loans are affected by the state of affairs. We can see that if the volume of new loans of non-financial corporations is slightly increasing, the volume of new loans of households registers a drastic increase during this period. This is largely due to the need for capital felt at the level of households and businesses. However, we can see that by the end of 2021 the economy is showing signs of recovery, but these could be further stimulated by maintaining a feasible interest rate, reducing bureaucracy as much as possible and stabilizing certain safety nets in terms of loans. All this would help combat the effects of the pandemic by stimulating both business and growth.

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