

## THE ANALYSIS OF THE LOAN INDEBTFULNESS DEGREE OF ROMANIA'S POPULATION DURING THE YEARS 2002- 2019

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### ABSTRACT

The financial system is a set of arrangements and conventions that facilitate the transfer of money from its holders to those who need it. Our study performs an analysis of loans offered by banks to individuals. The loans have been granted, following the requests, both in lei (the national currency of Romania) or in the international currency as well. The analysis is performed based on data provided by the National Bank of Romania and the National Bank Deposit Guarantee Fund of Romania (FGDB) and presents the situation in each county and development region in Romania. Methodologically, in this study there have been rendered as for the period 2002-2019, two aspects: firstly the ratio between loans in national currency compared to loans in international currencies and, secondly, the relationship between accessing and the evolution of loans for houses/ flats in relation to the access and evolution of loans for personal needs, both in the national currency or in the international currency as well. A special analysis showed a clear representation of the way the situation has been treated, for both mentioned aspects, as well as the distribution of the results on the geographical regions of Romania. In this way, the results highlight the differentiated behavior of the population in each geographical region. The present study is only a part of a much more detailed analysis that follows the analysis of the indebtedness of the Romanian population, in which other indicators are also present.

**Keywords:** bank credit, financial system, population, currency, geographical region

### INTRODUCTION

The analysis of the economic situation in a certain state is performed by a series of indicators. Among them, the degree of indebtedness of the population represents a starting point [11]. Accessing home loans or personal loans are important indicators for assessing the general economic situation in that area [2]. A loan is accepted only if, after having been made a detailed financial analysis, there is obtained a clear result of the real possibilities of paying back the borrowed amount, by the person requesting this loan [1], [3]. Precisely this fact is seen not only as a level of indebtedness of the population, with a slightly negative connotation but, on the contrary, must be perceived as an indicator of

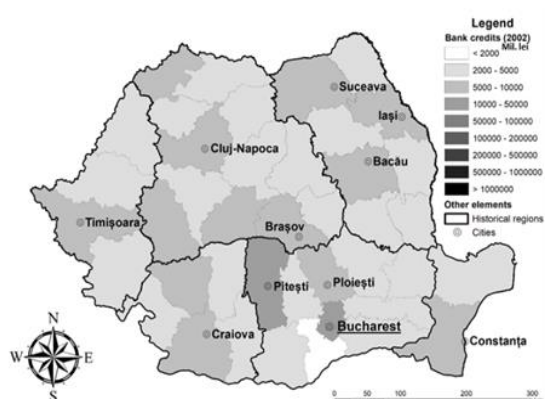
economic growth of the area, growth of population income [4], [6]. The degree of accessibility for a loan reflects the existence of jobs, of stable salaries and surmounting a certain level. At the same time, incomes belong predominantly to the young and adult population under the age of 55. The orientation of the amounts acquired through loans presents certain peculiarities; personal loans are directed to the purchase of household goods, but also to vacations and treatments, including spa. This has clear effects on the quality of life, despite the degree of indebtedness acquired [10], [16].

## METHODOLOGY

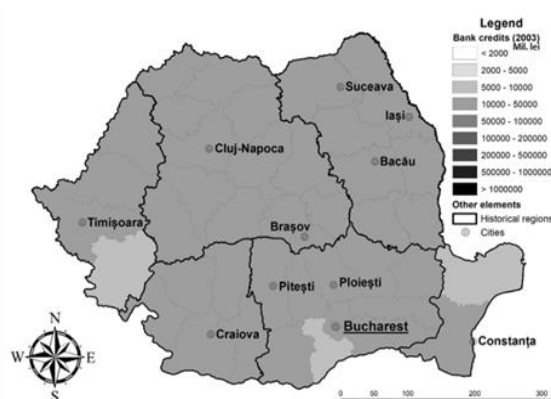
Methodologically, this study analyzes the degree of indebtedness through bank loans of the Romanian population in the period 2002-2019. This analysis has been performed at county level for each of the mentioned period. Equally, two forms of credit were taken into account: the home loan and the personal loan. In order to create a complete picture of these loans, the loans in lei (the national currency of Romania) and the loans in other currencies of international circulation were added together. These were converted into lei- value equivalent, at the official exchange rate of the NBR (National Bank of Romania) in that period, for each type of currency. This way the total amount analyzed was the one in the national currency (leu). The graphical representation has been made in ArcGIS, by using vector data for the administrative-territorial units (counties), establishing nine classes of value ranges. The size classes took into account the maximum and minimum values resulting from the general analyses.

## RESULTS

The results highlight the differentiated behavior of the population in each geographical region, within each year analyzed from 2002-2019. In 2002, the degree of indebtedness of the population by accessing loans, regardless of their form, was relatively uniform in Romania (Fig. 1). However, Constanta (Constanta county, Dobrogea), Bacau (Bacau county, Bacau city and Iasi county - Moldavia), Cluj (Cluj county, Transylvania), Craiova (Dolj county, Oltenia), Ploiesti (Prahova county, Muntenia) and Timisoara (Timis county, Banat). The situation continues in a similar way in the following years (fig.2 and fig. 3).



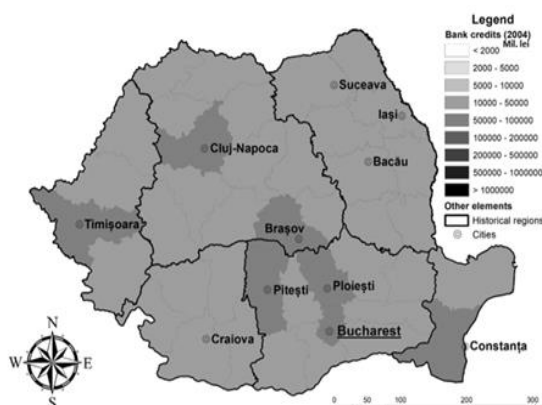
**Figure 1.** The degree of indebtedness of the Romanian population in 2002 (mil. Lei)



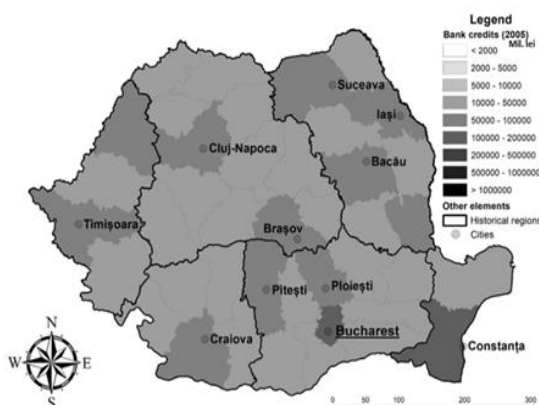
**Figure 2.** The degree of indebtedness of the Romanian population in 2003 (mil. lei)

The population of Constanta stands out by accessing loans and borrow capacity. Its behavior is justified, due to the economic possibilities (salary and additional income registered), taking into account the beneficial economic situation of the largest harbour

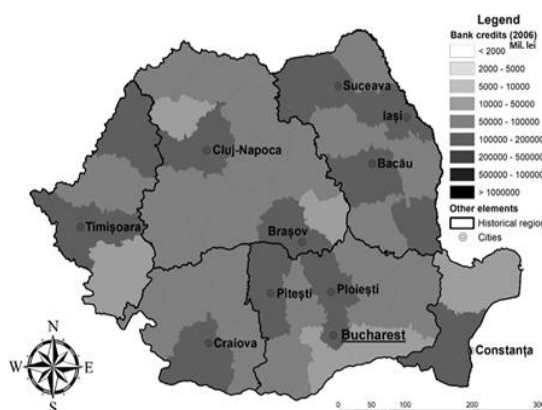
city on the Black Sea in Romania. Ploiesti (Prahova County, Muntenia) justifies this economic behavior by the economic importance given by the oil economy (fig. 4 and fig 5). All these are elements that favor the credibility of bank loans. Home loans were supported by special measures by the Romanian State, the first measure, named "first home", when accessibility has increased among young people, with income from all categories. Personal loans are accessed predominantly by the population over the age of 40, for the purchase of household goods or for holidays. Cities or areas where there are registered improvements in investments and where new jobs have appeared or economic growth has been noticed, there are also accesses of loans of the population (fig. 6, fig. 7).



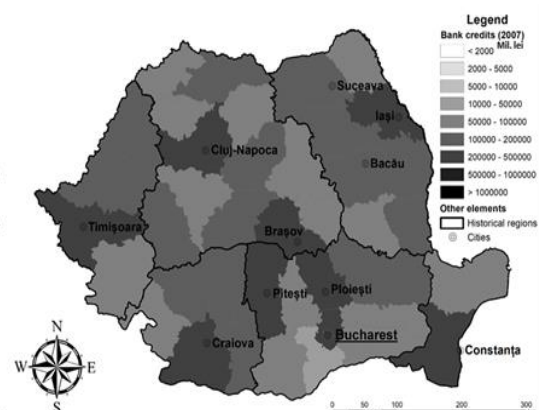
**Figure 3.** The degree of indebtedness of the Romanian population in 2004 (mil. lei)



**Figure 4.** The degree of indebtedness of the Romanian population in 2005 (mil. lei)



**Figure 5.** The degree of indebtedness of the Romanian population in 2006 (mil. lei)

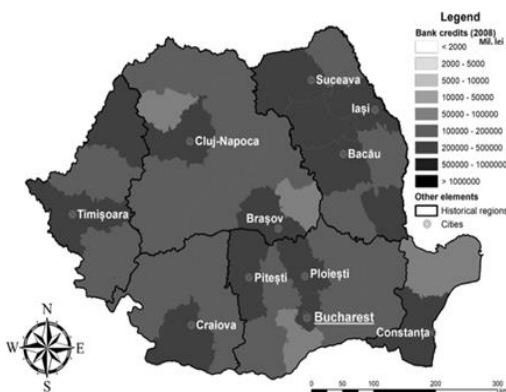


**Figure 6.** The degree of indebtedness of the Romanian population in 2007 (mil. lei)

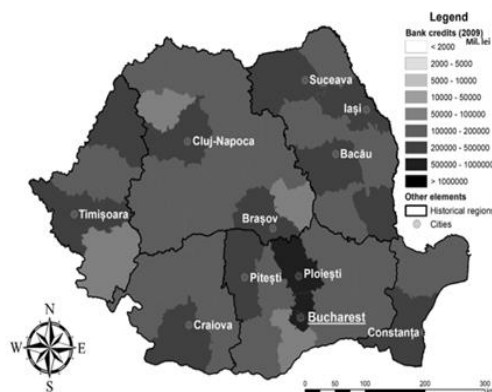
The economic crisis from 2008-2010 in Romania is also felt in terms of the accessing to credit forms by the population. There are few areas where borrowed amounts are stagnant or slightly rising. Most banks tighten the conditions for granting loans, based on the increase in the degree of risk (fig. 8 and fig. 9). In this period of crisis, housing loans were granted through the "first home" measure to young people whose job was not based on high salaries, but on areas that were not greatly affected. In addition, there is the guarantee of the Romanian State in case of inability to pay. Accessing loans for personal needs is difficult during this period.

The numerical and value reduction of these types of loans are a result of the behaviour of the population (not assuming the risk of taking a loan) and of the banks through restrictive measures. The next stage in the Romanian economy, after overcoming the difficult

moment of the economic crisis after 2010, the relaxation regarding the granting of loans was felt. Those loans simply "by the I.D. card" through which the banks granted loans without having many requirements related to the source of income of those who were interested in a loan, favoured the rapid increase of the indebtedness of the population. These relaxation measures have gradually diminished. Their effects are visible in the case of the analysis of bank loan arrears [5].

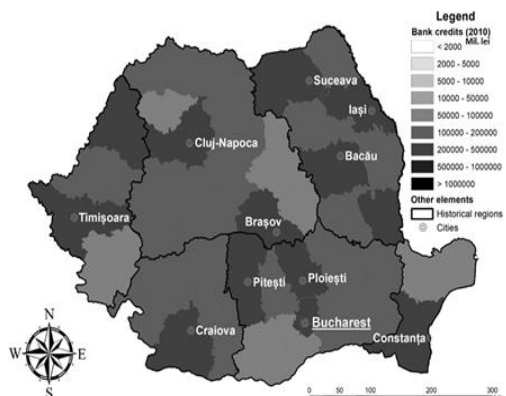


**Figure 7.** The degree of indebtedness of the Romanian population in 2008 (mil. lei)

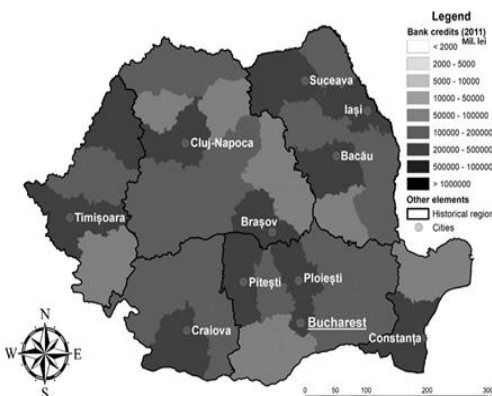


**Figure 8.** The degree of indebtedness of the Romanian population in 2009 (mil. lei)

recovers from the economic crisis registered in 2008-2010, in Transylvania (Cluj, Brasov, Sibiu, Hunedoara), there are registered increases in terms of access to bank loans, both for housing and personal needs (fig. 10, fig. 11 and fig.12). Another favourable situation for accessing bank loans were the salary increases, both the budgetary ones and the private ones. A series of measures taken regarding the increase of the minimum wage on economy in Romania, favoured this degree of indebtedness of the population to banks through loans for housing and personal needs [9].

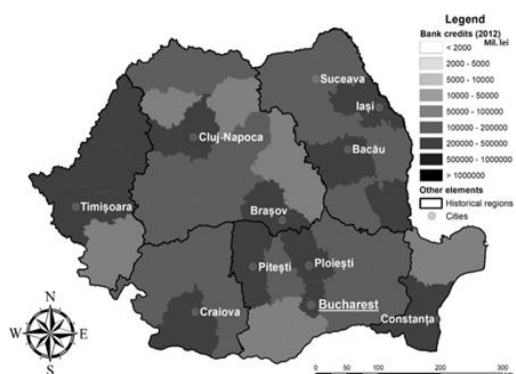


**Figure 9.** The degree of indebtedness of the Romanian population in 2010 (mil. lei)

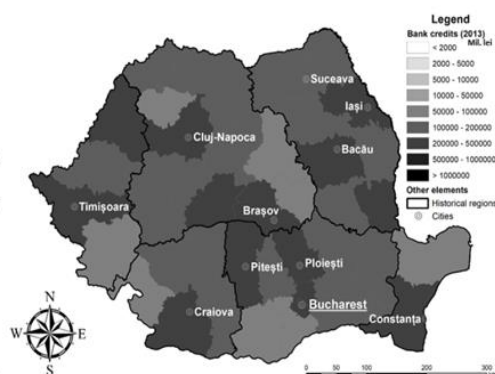


**Figure 10.** The degree of indebtedness of the Romanian population in 2011 (mil. lei)

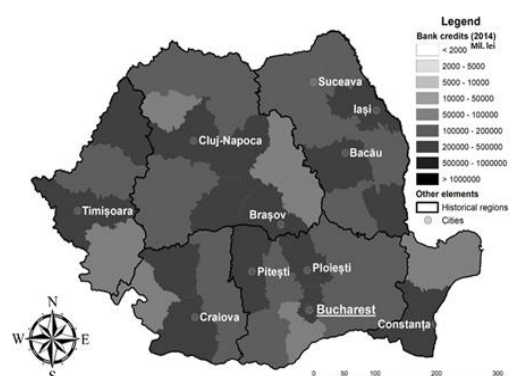
During the same period, more and more loans are registered in Banat (Timisoara, Arad) as well as in Oltenia (Craiova, Tg. Jiu) and Moldova (Bacau, Suceava, Iasi), due to the economic stability (fig. 13, Fig. 14, Fig. 15 and Fig. 16). In recent years, Cluj is the one to hold the supremacy in terms of the value of the amount credited, the secondary positions changing between the major economic centers, Constanta, Timisoara and Brasov.



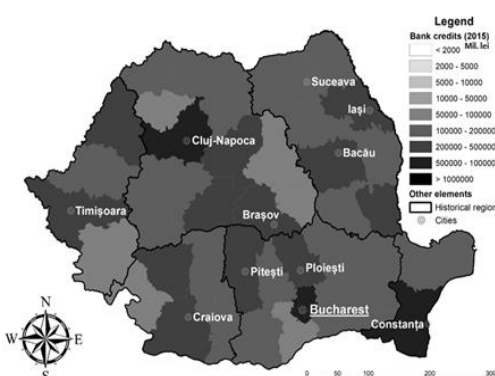
**Figure 11** The degree of indebtedness of the Romanian population in 2012 (mil. lei)



**Figure 12.** The degree of indebtedness of the Romanian population in 2013 (mil. lei)



**Figure 13.** The degree of indebtedness of the Romanian population in 2014 (mil. lei)



**Figure 14.** The degree of indebtedness of the Romanian population in 2015 (mil. lei)

New economic sectors have developed in many of Romania's regions. Tourism is one of them, where jobs have been growing throughout 2010-2019. The value of salaries in this sector has increased slightly from one year to another, allowing a continually increasing number of people to access loans for both housing and personal needs [5], [6]. The advantage of this sector consisted of the location of the new centers [7], [12], [11]. Many of the mono-industrial areas (based mainly on mining) have been “born” as a consequence of the development of the service sector, especially tourism.

This way, it is easy to observe how counties such as Hunedoara and Maramures have registered increases in accessing loans. Similar situations are registered in counties such as Tulcea, with the tourist capitalization of the Danube Delta, Buzau County with the capitalization of the Muddy Volcanoes from Paclele Mari, or urban centers with a special historical past and the capitalization of the tourist potential offered by cultural heritage - ethnic [15], [14], [13], [8]. Any economic activity favors conditions for increasing the quality of life, confidence in the possibilities to expand their living space or to purchase certain household goods. All this leads to an increase in the level of access to bank loans (fig.17 and fig.18).

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New economic sectors have developed in many of Romania's regions. Tourism is one of them, a domain in which the number of jobs has been growing throughout 2010-2019. The value of salaries in this sector has increased slightly from one year to another, allowing an increasing number of people to access loans for both housing and personal needs [5], [6], [8]. The advantage of this sector consisted of the location of the new centers [7], [12], [11]. Many of the mono-industrial areas (based mainly on mining) have "come to life" following the development of the service sector, especially tourism. This way, it is easy to observe how counties such as Hunedoara and Maramures have registered increases in accessing loans. Similar situations are registered in counties such as Tulcea, with the tourist capitalization of the Danube Delta, Buzau County with the capitalization of the Muddy Volcanoes from Paclele Mari, or urban centers with a special historical past and the capitalization of the tourist potential offered by cultural-ethnic heritage. [15], [14], [13]. Any economic activity favours conditions for increasing the quality of life, confidence in the possibilities to expand their living space or to purchase certain household goods. All these lead to an increase in the level of access to bank loans (fig.17 and fig.18).

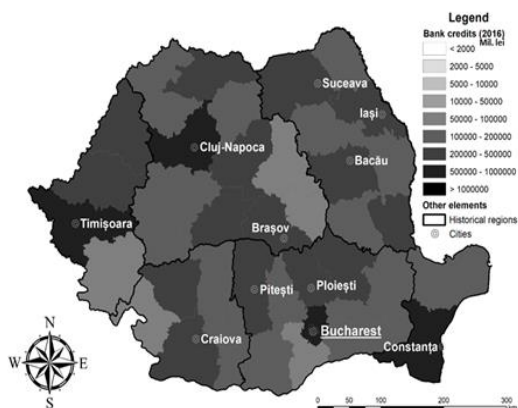


Figure 15. The degree of indebtedness of the Romanian population in 2016 (mil. lei)

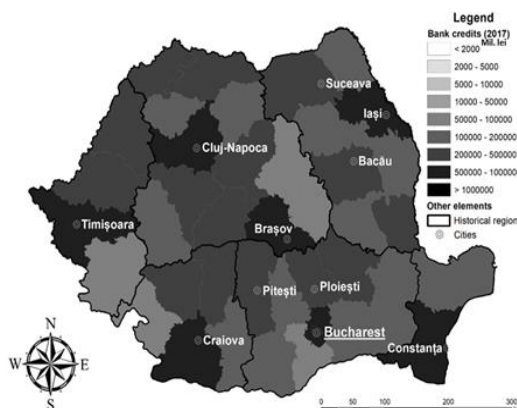


Figure 16. The degree of indebtedness of the Romanian population in 2017 (mil. lei)

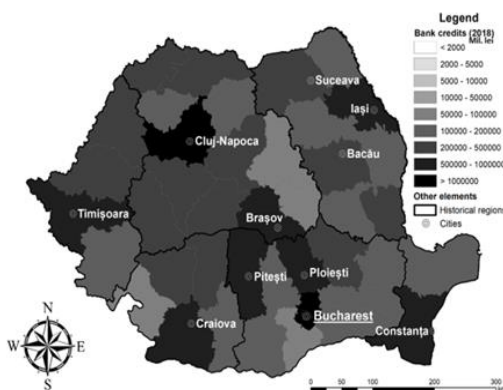


Figure 17. The degree of indebtedness of the Romanian population in 2018 (mil. lei)

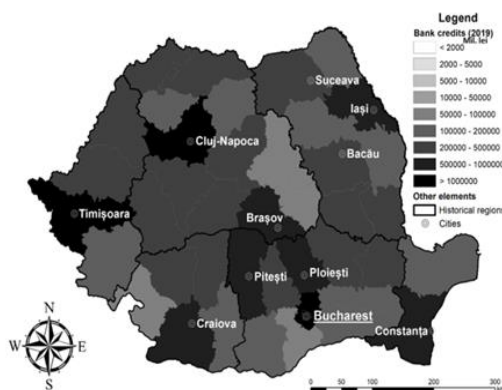


Figure 18. The degree of indebtedness of the Romanian population in 2019 (mil. lei)

## CONCLUSIONS

The tracking of accessing bank loans in the period 2002-2019 highlights a series of economic peculiarities from each region of Romania. There are counties in Romania where the economy has had difficulties in implementing new economic activities. This is marked by a stagnation or a decrease in jobs. The lack of income discourages or places most of these inhabitants in the area of inability to access a bank loan. On the other hand, there are counties where foreign or Romanian investments have favored job creation. They attracted a predominantly young workforce. Thus there arose another need, that of a home. This way, most employees, who did not have a home, accessed a loan of the "first house" type, as well as of the real estate type or mortgage type. Thus, one can follow the centers with great attraction for the population. This attraction is for the opportunity offered by the existing jobs and the salary grade. From this point of view, large cities, such as Cluj Napoca, Timisoara, Constanta, Ploiesti, Pitesti, Bacau, Sibiu, Brasov, Craiova, to which there are added smaller ones, are the most attractive urban centers for young people, but also for working population of any age in Romania. The present study is only a part of a much more detailed analysis that follows the analysis of the degree of indebtedness of the Romanian population.

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