

THE LENDING ACTIVITY AND ECONOMIC GROWTH IN ROMANIA IN THE GLOBAL CRISIS CONTEXT

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1. Introduction

The Romania's economy entered on the upward part of an economic cycle starting with 2000, more exactly starting with 2002 when it succeeded in equalizing the GDP from 1989, and the banking system finished the convulsions from the period 1997-2002, fact proved through banking insolvencies, some hidden and others official, as well as through numerous withdrawals of banks functioning authorizations, especially the new obtained. It should be also added that the acceptance of the decision to adhere to the European Union (1999) had a contribution in this evolution conferring an objective and a strategy (negotiation chapters) to the economic policies, even in the conditions in which the policies were deprived of coherence.

The average economic growth within 2000-2006 was of 5.6%, and the growth motives were the exports and the investments. The exports were sustained by the competitiveness obtained through the exchange rate controlled depreciation, and the foreign investments became attractive also due to the risk perception decrease when it was confirmed the statute of NATO member and of European Union future member.

After 2005 the consumption became the economic growth engine, and the average economic growth was situated over the potential level. Another factor that also contributed to a positive

production gap was the evolution of the real estate sector. These phenomena results were the macroeconomic disequilibrium (inflation, external deficit and real estate hyperinflation) which were the basis of the actual recession in the Romania's economy, measured through the GDP decrease of 7.1% in 2009.

But together with this contraction we observe another more serious aspect that is the development opportunity loss which will delay the standard of living growth at least on medium term. The wages growth on the economic level offered the possibility to grow the credits granted to the population, increasing more the demands for consumption goods. The non-governmental credit grew extremely rapid, the level being expressed with two digits, until the global financial crisis affected the Romanian economy starting with the third quarter of 2008, due to the panic spread towards the emergent economies. The excessive appreciation of the national currency was also added to these elements.

The central bank, due to non-cooperation between the monetary policy and the other economic policies, was laid on the line of a dilemma:

↳ the wages growth above the productivity level and the public deficit growth created an excess for demand of consumption, which is in fact the inflation, situation in which the National Bank of Romania had to grow the interest rate;

↳the foreign currency big entrance, attracted by the interest differential between Romania and the euro zone economy, was in fact the systematic risk, for this reason, BNR had to diminish the interest rate.

The lending evolution depends principally on the economic evolution, and the recent forecast indicates a GDP moderate growth. Per se, we expect to see a 3-10% loan balance evaluation for 2011 according to different anticipations. But if the economic growth expectations at 1.5-2% in 2011 wouldn't materialize, certainly we won't see an advance of lending. A good lending activity ameliorates the external financing constraints, the capital being more allocated in the most productive way, fact that is essential in the economy development (Mishkin,2007). Financial intermediaries, although submitted to some regulations, determine the funds allocation strategy and play a significant role in determining the economic sectors in which the investments will be realized, and thus in the incomes distribution.

Taking into consideration the overall image of the Romanian economy previously described and the banking system role within the national economy we propose to estimate econometrically a model which surprises the determinant factors of the non-governmental credit evolution and also to sustain empirically certain statements. In this way we propose to identify with a certain precision the elements which could lead to the lending revival in the future.

2. Methodology

The non-governmental credit evolution registered very high rates of growth in Central and Eastern Europe in the years preceding the financial crisis. On one hand, this growth can be justified by the low level of the financial intermediation in these countries and by the convergence tendency towards the developed countries from the European

Union. On the other hand, the empirical and theoretical studies sustain the fact that a too rapid lending growth (a boom) can have serious macroeconomic consequences, especially if it is accompanied by disequilibrium of the current account deficit. To this effect an important challenge is related to the causes' identification that led to this growth.

Hereinafter, we propose the econometric estimation of a function through which we emphasize the main determinant factors of the non-governmental credit growth in Romania. The majority of studies which investigate this fact rely on a simple set of variables that includes the real GDP or the GDP per capita, the real or nominal interest rate, the interest spread and the inflation rate (Calza et. Al., 2003; Kiss et. al., 2006; Boissay et. al., 2006; Adamopoulos, 2010; Mishra et. al., 2009). An interesting approach belongs to Hofmann (2001) who also includes in the analysis a prices index from the real estate sector, starting from the premise that a prices growth in the real estate sector leads to a non-governmental credit growth. These authors use as an econometric model either a vector error correction, or a multiple regression.

Within our study, the model estimation through which we will surprise the variables that are important for the non-governmental credit growth will be realized through a multiple regression. We will use as a dependent variable the non-governmental credit, and the independent variables will be the real gross domestic product, the unemployment rate, the interest spread and a prices index for the real estate sector. The data included in the analysis are trimestral and surprise the period comprised between the first trimester of 2000 and the second trimester of 2010. The data were logarithmated, seasonal adjusted, and then the first difference operator was applied, excepting the unemployment rate and the interest

spread. A regression estimation through the method of the least squares demands the use of stationary series, condition verified through the Augmented Dickey-Fuller test. The data are taken from the International Monetary Fund database, excepting the prices index from the real estate sector. By including this index within this analysis we wished to surprise the effects of the prices growth in the real estate sector from Romania on the non-governmental credit.

The first two independent variables, the real gross domestic product and the unemployment rate represent the indicators which characterize the economic activity. An appreciation of the gross domestic product will lead to a non-governmental credit growth, and an unemployment rate growth will lead to a non-governmental credit decrease. The interest spread,

$$\text{Cred}_{\text{gov}} = f(\text{GDP}_{\text{real}}, \text{Spread}_{\text{interest}}, \text{Rate}_{\text{unemployment}}, \text{Index}_{\text{unemployment}})$$

An interesting approach within the model is constituted by the inclusion of a prices index from the real estate sector. Its inclusion is sustained by numerous reasons. Firstly, the prices growth in the real estate sector results from a value growth which had to be spent for buying these properties and, implicitly, for growing the demand for credits. Secondly, the prices changes in the real estate sector determine a higher value of the mortgages and, implicitly, of the credits, which are the basis of these mortgages. Thirdly, the house price growth induces a feeling of richness for their owners, feeling which is rendered through the growth of the desire for welfare which is also obtained through credit. A fundamental problem in the prices analysis in the real estate sector is represented by establishing the factors which led to this index growth. Were these factors based from the economic

calculated as a difference between the active interest and the passive interest, represents an index which surprises the degree of development in the financial sector. A depreciation (appreciation) of this indicator will lead to a non-governmental credit growth (decrease).

In the initial model we included other variables such as the inflation and the money market rate. But the significance threshold of these rejected the regression coefficients validity. This fact can be ascribed to the disinflationary trend which took place in Romania in the latest years. Thus, a high inflation didn't represent an impediment for the population when they accessed credits, because the diminution trend of this one induced a feeling of trust. The form of the estimated regression equation is the following:

point of view or this index reflects a bubble?

3. The results of the econometric estimation

The dynamics of the non-governmental credit is explained in a proportion of 73.4% by the factors included in the analysis (table no.1). As we can observe the independent variables sign is the one adequate for the theory. Thus, the credit is positively influenced by the real gross domestic product growth and by the real estate index and it is negatively influenced by the growth of the unemployment rate and of the interest spread. The significance test level is inferior to the 5% limit for all the variables included in the model, so the null hypothesis according to which the variables coefficient is zero is rejected.

Table no.1 The results of the econometric model

Dependent Variable: DLCREDIT_NEGUV
 Method: Least Squares
 Date: 12/12/10 Time: 10:03
 Sample (adjusted): 2001Q1 2010Q2
 Included observations: 38 after adjustments
 Convergence achieved after 8 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.069416	0.010084	6.884001	0.0000
DLPIB_R(-2)	0.363120	0.282325	1.286174	0.0476
DSPREAD(-2)	-0.017512	0.005410	-3.237119	0.0028
DSOM(-2)	-0.014811	0.004746	-3.120919	0.0038
DLIMOB(-1)	0.160725	0.063047	2.549282	0.0158
R-squared	0.734071	Mean dependent var		0.087742
Adjusted R-squared	0.692519	S.D. dependent var		0.043968
S.E. of regression	0.024381	Akaike info criterion		-4.446125
Sum squared resid	0.019021	Schwarz criterion		-4.187559
Log likelihood	90.47638	Hannan-Quinn criter.		-4.354129
F-statistic	17.66655	Durbin-Watson stat		2.047154
Prob(F-statistic)	0.000000			

As we observe the real gross domestic product growth rate and the index evolution of the real estate prices have the most significant influence on the non-governmental credit, their coefficients having a positive impact of 36.3% and, respectively, of 16%. The hypotheses from the specialized literature are thus verified. In our opinion, the economic growth between 2000 and 2004, which was based greatly on exports, underlay the non-governmental credit ascendant evolution. This tendency was sustained by the explosion in the real estate sector which started in 2005-diagram no.1.

The coefficients of the other variables included in the analysis have a quiet small negative influence, of 1.75 % and of 1.48% on the non-governmental credit evolution. This fact can be explained in the case of the interest spread, through the downward trend which it had in the latest years and through the relative low importance given

by the population to the interest rate when accessing a credit.

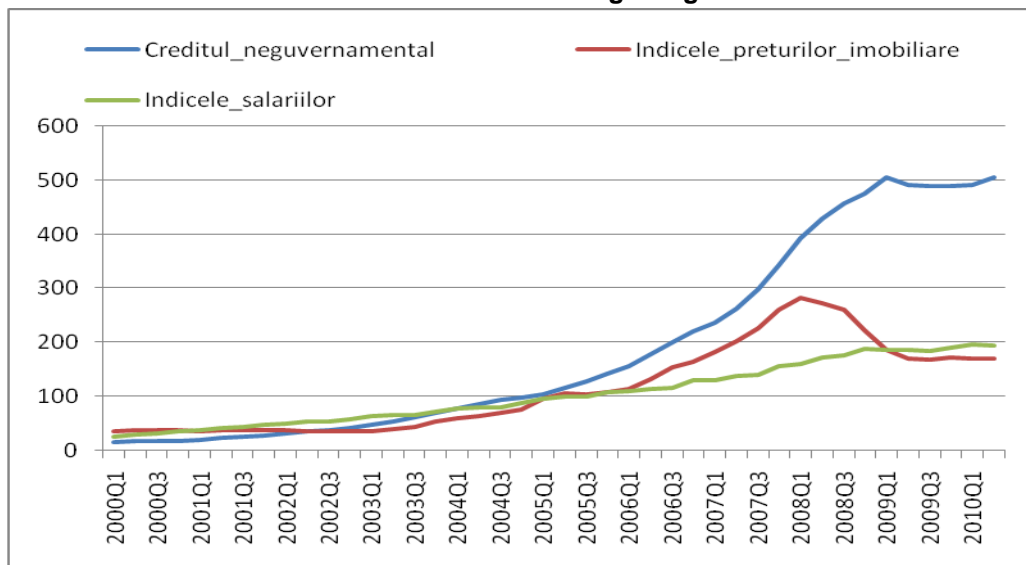
A psychological factor that contributed to the lending growth is also the trust in a positive evaluation of the future incomes and of the overall economy. But this trust wasn't a moderated one but rather an exuberant one.

The following graphic comprises the growth index of the non-governmental credit, of the prices in the real estate sector and of the average wage (2005=100). Their evolutions present an interesting image which can be divided in two periods. Until 2005, the three indicators developed in a similar tendency. After this year, we can observe a strong appreciation of prices in the real estate sector and an accentuated growth of the non-governmental credit, while the wage growth index has an evolution that inscribes in the previous years' tendency. In our opinion these evolution constituted the premises of the ulterior

macroeconomic disequilibrium. A significant proportion of the non-governmental credit was represented by the consumer credit, which led to the

current account deficit accentuation, because Romania didn't produce goods demanded by the consumers, these goods being imported.

Graphic no.1- The evolution of the non-governmental credit, of the real estate index and of the average wage



Source: IMF - International Financial Statistics

On the other hand, the prices index evolution in the real estate sector wasn't based on the superior quality of the houses, but on a speculative reason. The Romania's macroeconomic structure confronted with the influences of a new element that is "hyperinflation" in the real estate sector. The houses prices grew with 150% in only 3 years (2005-2008). The money supply growth has a significant impact on the houses prices and on the credit, the credit influencing the houses prices, and these influence, at their turn, both the credit and the money supply.

That is why we believe that the actual financial crisis will also lead to the reconsideration of the monetary policies, the central banks also having to give importance to the assets prices evolution. A monetary policy strategy which gives the correct attention to analyzing the monetary evolution can, virtually,

determine the central bank to react indirectly to the financial disequilibrium, being thus able to reduce the antagonistic consequences of these on long term.

For that purpose, having in view that such a policy can be difficultly communicated in periods with stable low inflation, as well as the problem of the regional differences of the real estate prices and of the credit dynamics (which can be solved through monetary policy as long as they are reflected in aggregates on the entire zone) Goodhart and Hofmann (2008) propose to take into consideration a secondary financial tool that refers directly to the connexions between the real estate prices and the monetary variables and which could be used at a regional level and within a monetary union. This tool could be an administrative counter-cyclic ceiling for the volume report of the credit/ value for

the credit on mortgage, ceiling which could be raised in the case of a low rate or of the growth collapse of the mortgages volume (and of the inflation generated by the real estate prices), or reduced during a strong expansion period.

This idea is also enforced by the study of the evolution of non-performing credits. Analyzing this indicator (the credit risk rate grew from 4% in December 2007 to 20.24% in September 2010) we observe that the lending activities management seems to be led by the idea of economies of scale, in the sense that the expansive growth of the lending activities volume would have allowed the acceptance of some loss from non-performing credits. In the future, the banks will have to pass from a dangerous business model, inadequate to the concrete conditions in Romania, with strategies focused principally on volume (the growth of the credits volume, of the clients number, of the assets, of the credit card with identity card) to a model based on qualitative aspects (client' reliability, cash flow projection analysis, business, internal and external economic environment, the policies mix).

4. Conclusions

Within this article we estimated an econometric model through which we

emphasized the main factors which contributed to the non-governmental credit accentuate growth between 2000 and 2010. Such an approach is necessary, offering an overall image on the lending market.

The economic growth and the prices from the real estate sector had the most significant impact on the non-governmental credit. In our opinion, the prices index evolution in the real estate sector wasn't based on a superior quality of the houses, but on a speculative reason. The accelerate growth of the non-governmental credit wasn't also accompanied by a proportional appreciation of the population's incomes. These two factors correlated with the actual financial crisis led to the apparition of a significant number of non-performing credits in the banks' portfolio.

Although the model we used is a quiet simple one, it surprises fairly correctly the determinant factor of the non-governmental credit growth. This research must be continued through a more complex analysis from which the conditions that were the basis of the prices excessive appreciation in the real estate sector, the relation between the monetary mass and the assets prices and the consequences, which this phenomenon had on the national economy come out more exactly.

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