



# COVID CRISIS EFFECTS ON LENDING IN THE ROMANIAN BANKING MARKET

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**Abstract:** *Credit growth is an important indicator of the financial stability within a country. We aim to investigate this issue, by analyzing the credit growth in Romania during 2000-2022. We find that Covid crisis impacts positively and significantly credit growth. We bring new insights regarding the effects of macroeconomic variables like GPD growth, inflation, and long-term external debt service on credit growth. These results remain robust when we employ several categories of credit growth (e.g. by currency, by maturity, by type of credit) as dependent variables.*

**Keywords:** *lending; banking market; emerging markets; covid.*

**JEL Classification:** *G21, G28*

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## 1. INTRODUCTION

The Covid-19 crisis had significant repercussions in all sectors of activity, whilst the abrupt start of the pandemic cumulated with the governmental restrictions, led to consequences that still have significant effects felt so far. The financial sector has been one of the sectors that suffered an increased level of stress during the crisis, as it is expected to play a countercyclical role (Demirguc-Kunt, Pedraza, and Ruiz-Ortega, 2021).

Banking institutions were expected to be part of the solution for the financial concerns generated by the interruption of activities in certain sectors, as well as

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dealing with a generalized increase of uncertainty. Therefore, the Covid-19 crisis has undeniable consequences in the banking sector.

To better understand the implications of the health crisis in the banking sector, we assess the effects of the Covid-19 crisis on the lending growth registered by credit institutions in the Romanian banking market. Our empirical set includes a large set of macroeconomic factors and banking sector variables. We also examine the effects of the Covid-19 crisis on the lending growth by several categories of credit, like currency, maturity, type of loans, and type of credit institutions.

Our results show that the Covid crisis affects positively the credit growth in the Romanian banking market. We also find strong evidence of the association between the economic environment and credit growth. Macroeconomic characteristics like GDP growth, inflation, and external debt generates an increase in credit growth. Regarding the banking sector environment, we find evidence that non-performing loans growth influences negatively credit growth. Further, we show that our results are robust when performing subcomponents analysis (e.g., credit growth by currency, credit growth by maturity, credit growth by type of loans, and credit growth by type of credit institution).

Our contribution consists of the expansion of the literature regarding the determinants of credit growth by obtaining specific results for Romanian market. First, we investigate the effects of COVID pandemic on the credit growth. Then, we bring new insights by assessing which are other possible determinants of credit growth. The policy recommendation based on our results is to take into consideration that every category of credit growth reacts in a similar way in case of a crisis, but this indicator is influenced differently by the economic environment based on the category of credit (e.g., currency, maturity, type of loans). Therefore, the policy makers should be aware of the effects of economic environment on credit growth. Although, they intervene to impede the increase or decrease in credit growth, the macroeconomic indicators interfere in the efficiency of macroprudential policies.

The paper is organized as follows. In Section 2 we present the literature review regarding credit growth. Section 3 presents data collection and describes the empirical approach. The results are discussed in the section 4. Section 5 concludes.

## **2. LITERATURE REVIEW**

We present in this section the main factors that drive the level of lending in general, as well as determinants specific for emerging markets. In addition, we include several studies that assess the effects of Covid-19 crisis on lending.

## 2.1 General

Evidence from previous research on the emerging market economy, indicates that there is a connection between credit expansion and economic expansion, more precisely, a strong positive correlation of household credit with output and real exchange rate and a negative correlation with exports (Bahadir and Gumus, 2016). Another factor determining the level of lending in a region is monetary policy, having a direct influence on the credit supply. Although the impact of monetary policies is incontestable, it has a different magnitude depending on the borrower, business loans being more sensitive to monetary policies compared to household loans (Yun and Cho, 2022). Taking into account the previous literature, establishing a difference between household loans and business loans is needed when evaluating explanatory factors of the credit market.

As we mention monetary policy as a determinant factor of lending, there is further research that refers to monetary policy rate cut that indicates the expansionary effect of negative interest rates on credit supply, as high deposit banks relax their lending requirements (Schelling and Towbin, 2022). Moreover, a study that includes bank efficiency proves that good bank management, improves the transmission of policies for banks with low loan to deposits ratios and reduces the policies transmission for banks with high loan to deposits ratios (Fungacova, Kerola and Weill, 2022).

Accounting for income and wealth inequality, Rubaszek and Serwa (2014) prove that the spread of lending-deposits interest rate, individual income and individual persistence, determine the household credit to GDP.

## 2.2 Emerging markets

Considering that developed economies differ from emerging ones, we present in the current section, possible determinants of credit growth as found in previous research that has as main focus emerging market economies and credit growth. Credit growth measures prove to be a relevant topic as credit growth influences financial stability. The evidence indicates that observing the speed of credit growth has a vast importance, considering a too rapid pace may threaten financial stability (de Moraes and Costa, 2022).

Gozgor (2014) finds that loose monetary policy, differences between domestic and global lending rates and real trade openness positively impact the level of domestic lending in emerging market economies. As Gozgor explains, in the case of emerging economies, loose monetary policies intend to increase the investment volume for economic growth purposes, making borrowing more accessible,

therefore contributing to credit growth; moreover, a higher spread between domestic and foreign interest rates allows banks to lend at a higher domestic interest rate and borrow at a lower global rate, increasing the level of domestic credit. In addition, real trade openness, measured as productivity differences between countries, positively impacts domestic loans (Gozgor, 2014). Regarding the loose monetary policies, the previous findings are consistent with Guo and Stepanyan's (2011) work conducted for a sample of 38 emerging market economies.

Another study, this time focusing on a credit union from Columbia, shows that credit demand is affected by income, indebtedness, education, credit maturity and real interest rate, meanwhile, credit supply increases with interest rate, income, maturity and scores (Arango and Cardona-Sosa, 2022). Credit growth, in emerging economies, is also enhanced due to external and domestic funding and economic growth; at the same time, high levels of inflation lead to an increase in nominal credit growth, but reduces real credit growth (Guo and Stepanyan, 2011).

### **2.3 Covid-19 crisis effects**

The pandemic and the governmental restrictions led to a decrease in spending, therefore households accumulated savings, increasing the level of deposits, funds used by banks to issue more real estate loans, especially for the ones with higher capital ratios and in countries with higher house pricing (Dursun-de Neef and Schandlbauer, 2022). Another study proves that, during the pandemic, there is an increase in debt of non-financial agents, which results mainly of real estate credit growth in the case of Poland (Danilowska, 2022).

Czech and Puszer (2021) prove that an increased transmission of the virus results in a low tendency for using consumer credit and a higher tendency, when there is a decline in Covid symptoms. The pandemic also has a negative impact on the credit card use, however this effect becomes smaller over time, but other factors impacting credit use include public health interventions and riskiness of borrowers (Horvath, Kay and Wix, 2021). The decline in credit growth relies on the multiple factors. Small, foreign and government-backed banks are more effected, as well as banks from countries with less developed financial intermediaries, credit markets and bond markets (Çolak and Oztekin, 2021).

Regarding bank corporate lending in an uncertain context, results show that uncertainty reduces the probability of the loan applications to be favorable and it increases the time for loans to be disburse (Alessandri and Bottero, 2020). Considering the monetary policies easing in Poland, in order to support banks, continue their activity and help firms and households withstand the health crisis, a

decrease in credit demand was still felt, leading to lower interest rates (Danilowska, 2021). Çolak and Oztekin (2021) also report a globally loan decline in response to Covid crisis.

### 3. SAMPLE AND METHODOLOGY

#### 3.1 Sample

The analysis of the impact of the Covid-19 crisis on the lending growth in the Romanian banking sector is realized by using a sample composed by 34 financial institutions. The data is represented by monthly and quarterly data on lending growth, on NPL growth, on performance, on unemployment rate, on consumer price index captured before, during and in the aftermath of the Covid-19 crisis from 2000 to 2022.

The description of the variables used to assess the effects of Covid-19 crisis on the lending growth are highlighted in the below table:

*Table 1* Variables used to investigate the effects of Covid-19 crisis on the lending growth

<b>Variable</b>	<b>Frequency</b>	<b>Description</b>
CG Total	monthly	Loans granted by credit institutions growth rate
CG RON	monthly	Loans granted by credit institutions; RON growth rate
CG EUR	monthly	Loans granted by credit institutions; EUR growth rate
CG USD	monthly	Loans granted by credit institutions; USD growth rate
CG OTHC	monthly	Loans granted by credit institutions; other currencies growth rate
CG ST	monthly	Loans granted by credit institutions; short term (less than one year) growth rate
CG MT	monthly	Loans granted by credit institutions; medium term (1-5 years) growth rate
CG LT	monthly	Loans granted by credit institutions; long term (more than 5 years) growth rate
CG CORP	monthly	Loans granted by credit institutions; corporate growth rate
CG HH	monthly	Loans granted by credit institutions; households growth rate
CG CONS	monthly	Loans granted by credit institutions; consumer and other loans growth rate
CG COM	monthly	Loans granted by credit institutions; commercial loans growth rate
CG HOUSE	monthly	Loans granted by credit institutions; housing loans growth rate
CG STATE	monthly	Loans granted by credit institutions; state-owned and majority state-owned credit institutions growth rate
CG PRIV	monthly	Loans granted by credit institutions; private and majority privately owned credit institutions growth rate

<b>Variable</b>	<b>Frequency</b>	<b>Description</b>
CG LEGE	monthly	Loans granted by credit institutions; credit institutions – Romanian legal entities growth rate
CG BRAN	monthly	Loans granted by credit institutions; branches in Romania of foreign credit institutions growth rate
<b>Regressors</b>		
Covid-19 dummy	monthly	Dummy Covid-19 period which takes the value 1 after March 2020, 0 otherwise
NPLs growth	monthly	Share of overdue amounts debts in total due amounts – growth rate (%)
CPI	monthly	Monthly Consumer Price Index CPI TOTALS (%)
LVR	quarterly	Leverage Ratio
ROA	quarterly	Return on assets (Annualized net profit / Total average assets)
GDPC	monthly	Gross domestic product per capita, percentage change compared to same period in previous year
UNEMP	monthly	Unemployment rate, percentage of population in the labour force, seasonally adjusted
LTEDS	monthly	Long term external debt service; direct public debt (growth rate)
STEDS	monthly	Short term external debt service (growth rate)
RON/EUR change rate	monthly	RON/EUR change rate (%)

The data source is represented by National Bank of Romania, National Institute of Statistics and Eurostat.

The main features of the data used for the empirical study are described in the below table. The lending growth for USD, the NPL ratio and the consumer price index have recorded a high volatility during the observed period. The Banks' profitability and the leverage ratio have recorded values which are closer to the mean.

*Table 2 Summary statistics*

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
CG total	153	.519	.519	-1.08	1.857
CG RON	153	.967	.745	-1.851	2.738
CG EUR	153	.101	.701	-2.277	2.426
CG USD	153	.162	4.047	-25.106	18.193
CG OTHC	153	-.796	2.458	-7.76	22.794
CG ST	153	37893.523	7403.764	27552	52030
CG MT	153	95910.719	29227.485	57805	180307
CG LT	153	202685.87	48409.737	133010	302521
CG CORP	153	.567	.977	-1.682	7.869
CG HH	153	.782	.538	-.718	4.486
CG CONS	153	.197	1.378	-14.127	3.304
CG COM	153	-.195	4.637	-29.43	7.716

Variable	Obs	Mean	Std. Dev.	Min	Max
CH HOUSE	128	.895	.651	-3.75	4.046
CG STATE	153	1.159	.991	-.87	4.868
CG PRIV	153	.473	.532	-1.116	1.824
CG LEGE	153	.501	.518	-1.478	1.843
CG BRAN	153	.703	1.521	-6.494	4.979
Covid-19 dummy	154	.208	.407	0	1
GDP	150	3.418	4.212	-9.5	16.3
LTEDS	151	31.285	100.191	-98.596	844.722
UNEMP	153	7.205	1.621	4.7	9.6
CPI	151	132.927	11.815	100.56	158.55
STEDS	151	17.601	42.748	-92.512	133.172
NPLs growth	153	.026	3.157	-14.088	13.742
LVR	146	8.653	.831	7.38	10.3
ROA	146	.93	.519	.01	1.76
RON/EUR change	153	.102	.709	-2.45	3.226

The values recorded by the correlation coefficients provide evidence that the variables used in the empirical model are likely to have low levels of correlation (<0.5).

A strong level of correlation has been identified between the values recorded by the Consumer Price Index (CPI) and unemployment rate (UNEMP) and between the NPLs growth rate and the Consumer Price Index (CPI).

Table 3 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
CG total	1.00										
Covid-19 dummy	0.29	1.00									
GDP	0.15	-0.14	1.00								
LTEDS	0.03	0.12	-0.03	1.00							
UNEMP	-0.28	-0.40	-0.36	-0.09	1.00						
CPI	-0.21	-0.69	-0.23	-0.12	0.76	1.00					
STEDS	0.09	-0.00	0.00	0.59	-0.02	-0.01	1.00				
NPLs growth	-0.001	-0.23	-0.33	-0.06	0.48	0.53	-0.12	1.00			
LVR	0.21	0.39	-0.07	0.08	-0.80	-0.57	-0.03	-0.35	1.00		
ROA	0.20	0.23	0.46	0.04	-0.78	-0.66	-0.03	-0.52	0.48	1.00	
RON/EUR change	0.11	0.02	0.04	0.03	-0.03	0.00	0.05	-0.12	0.06	-0.02	1.00

### 3.2 Methodology

Empirical financial studies highlighted that the Covid-19 crisis effects are reflected on the lending rate evolution. In this paper we assess the determinants of the lending growth for the Romanian banking sector, under the magnifying glass of the Covid-19 pandemic.

Having the objective to quantify the impact of the Covid-19 effects on the evolution of the lending growth, we have estimated the following regression models based on the OLS (Ordinary Least Squares) method with robust standard errors:

$$CG_t = \alpha + \beta * Covid - 19 \text{ dummy}_t + \gamma * \text{Macroeconomic variables}_{t-1} + \delta * \text{Banking sector variables}_{t-1} + \varepsilon_t$$

For the robustness of the results we have estimated multiple regression models, where the dependent variable  $CG_t$  quantifies the following data:

- $CG_{total}$  – lending growth total (lending growth evolution for the overall Romanian banking sector);
- $CG_{RON}; CG_{EUR}; CG_{USD}; CG_{OTHC}$  – lending growth by several categories of currencies, like RON, EUR, USD, Others
- $CG_{ST}; CG_{MT}; CG_{LT}$  – lending growth by various maturities, respectively short term loans, medium term loans and long term loans
- $CG_{CORP}; CG_{HH}; CG_{CONS}; CG_{COM}; CG_{HOUSE}$  – lending growth by credit typology: loans granted to corporates, households, consumer and others, commercial loans and housing loans
- $CG_{STATE}; CG_{PRIV}; CG_{LEGE}; CG_{BRAN}$  – lending growth by financial institutions typology: loans granted by state-owned credit institutions, loans granted by private-owned credit institutions, loans granted by credit institutions – Romanian legal entities; loans granted by branches in Romania of foreign credit institutions

The explanatory variables which quantify the evolution of the macroeconomic environment are:  $Covid - 19 \text{ dummy}$ ,  $L.GDPC$  – gross domestic product per capita, percentage change,  $L.LTEDS$  – long term external debt service, growth rate,  $L.UNEMP$  – unemployment rate,  $L.CPI$  – monthly consumer price index (%),  $L.STEDS$  – short term external debt service, percentage change,  $L.\frac{RON}{EUR} \text{ change}$  – RON / EUR change rate (%).

Further, we have considered also the explanatory variables associated with the banking sector dynamics, respectively:  $L.NPLs \text{ growth}$  – growth rate of the non-performing loans,  $L3.LVR$  – leverage ratio,  $L3.ROA$  – return on assets.

## 4. EMPIRICAL RESULTS

We begin our research by analyzing the main determinants of the credit growth in the Romanian banking sector during the period 2000-2022, which also incorporates the Covid-19 crisis. The empirical results from Table 4 support strong evidence for the impact of the Covid-19 effects on the evolution of the credit growth. We observed a positive and notable effect of the Covid-19 pandemic on the lending activities and we explain this by EBA supporting regulatory requirements for the

SME and infrastructure projects lending, having the objective to sustain the lending activities and the post crisis recovery.

Further, the empirical findings provide evidence of a positive impact of the GDP per capita rate on the lending activities growth. Even if the GDP has decreased in real terms during the Covid-19 period, the contraction was lower than the previously anticipated and the positive forecast is due to the recovering domestic demand.

Additionally, the results obtained highlight a positive relationship between the long-term external debt service and the credit growth. We explain this by the financial stimulus packages which were introduced to counter the negative effects of the Covid-19 pandemic having the objective to sustain the preservation of the workplaces and the financing and investment needs of the companies.

Table 4 Main results: Determinants of credit growth

	(1)	(2)	(3)
	CG total	CG total	CG total
Covid-19 dummy	.222** (.108)	.481*** (.154)	.408*** (.154)
L.Y	.38*** (.065)	.316*** (.063)	.383*** (.079)
L.GDPC	.028** (.011)	.034*** (.011)	.024* (.012)
L.LTEDS	.001** (0)	.001 (0)	.001* (0)
L.UNEMP	-.024 (.027)	-.045 (.033)	-.104 (.065)
L.CPI		.01* (.005)	.012** (.005)
L.STEDS		.001 (.001)	0 (.001)
L.NPLs growth			-.028* (.014)
L3.LVR			-.066 (.079)
L3.ROA			-.171 (.137)
Constant	.358 (.228)	-.886 (.626)	.039 (1.314)
Observations	173	173	170
R-squared	.498	.519	.488

Robust standard errors are in parentheses

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Table 5 Determinants of credit growth by currency

	(1) CG RON	(2) CG EUR	(3) CG USD	(4) CG OTHC
Covid-19 dummy	.048 (.153)	.873*** (.201)	1.896** (.959)	.983** (.493)
L.Y	.483*** (.072)	.21*** (.077)	-.201 (.161)	.109 (.112)
L.GDPC	.024* (.014)	.03** (.015)	.192*** (.065)	.072** (.035)
L.LTEDS	.001* (.001)	0 (.001)	.001 (.004)	.003** (.001)
L.UNEMP	.015 (.044)	-.061 (.039)	.425 (.258)	.019 (.122)
L.CPI	-.003 (.004)	.031*** (.007)	.013 (.024)	.08*** (.024)
L.STEDS	0 (.001)	.001 (.002)	-.008 (.015)	-.003 (.004)
L.NPLs growth	-.025 (.018)	-.007 (.018)	-.103 (.063)	-.084** (.039)
L.RON/EUR change	-.038 (.043)	-.158*** (.043)	-.122 (.168)	-.13 (.115)
Constant	.651 (.648)	-3.9*** (.962)	-5.585* (3.249)	-11.946*** (3.019)
Observations	173	173	173	173
R-squared	.46	.486	.092	.225

Robust standard errors are in parentheses

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Positive and statistically significant coefficients confirm that the main macroeconomic determinants of the lending growth by currency for the Romanian banking sector are the Covid-19 effects, GDP per capita growth rate, Consumer Price Index rate. A positive relation between the credit growth the and the Consumer Price Index rate is induced by the further liberalization of the household electricity market and the increasing global inflation pressure.

Table 6 Determinants of credit growth by maturity

	(1) CG ST	(2) CG MT	(3) CG LT
Covid-19 dummy	1.863*** (.624)	.964*** (.271)	.406*** (.149)
L.Y	.189** (.091)	.138** (.059)	.158*** (.04)
L.GDPC	.066* (.039)	.04** (.02)	.029** (.012)

L.LTEDS	.001 (.004)	.002* (.001)	0 (.001)
L.UNEMP	-.04 (.155)	-.015 (.062)	-.076* (.041)
L.CPI	.029* (.015)	.016* (.008)	.025*** (.006)
L.STEDS	-.008 (.012)	-.003 (.002)	.004 (.004)
L.NPLs growth	-.001 (.044)	-.058** (.027)	-.032** (.014)
L.RON/EUR change	-.2* (.107)	-.135** (.058)	-.144*** (.033)
Constant	-4.045** (2.047)	-1.686 (1.163)	-2.482*** (.771)
Observations	173	173	173
R-squared	.135	.275	.372

*Robust standard errors are in parentheses*

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

For checking the robustness of our results, we have estimated regressions, where the dependent variable is represented by the credit growth rate, split by maturities: short term, medium term, long term. We find evidence in Table 6 that the main variables which influence the evolution of the credit growth by maturity are the Covid-19 effects, GDP per capita growth rate, Consumer Price Index rate, RON/EUR change rate.

Table 7 Determinants of credit growth by type of loans

	(1) CG CORP	(2) CG HH	(3) CG CONS	(4) CG COM	(5) CH HOUSE
Covid-19 dummy	1.128*** (.249)	.488*** (.131)	.718*** (.26)	-2.146 (2.007)	.526** (.208)
L.Y	.017 (.066)	.06* (.031)	.015 (.024)	.033 (.102)	-.094 (.087)
L.GDPC	.051** (.02)	.039*** (.012)	.042** (.019)	-.262 (.168)	.015* (.008)
L.LTEDS	0 (.001)	0 (.001)	.003 (.002)	.006* (.003)	.001 (.001)
L.UNEMP	.001 (.057)	-.057 (.037)	-.229*** (.08)	-.079 (.333)	-.152** (.064)
L.CPI	.018** (.007)	.027*** (.007)	.042*** (.011)	.05 (.038)	.034** (.013)
L.STEDS	.004 (.004)	.002 (.002)	-.007 (.008)	-.004 (.008)	-.002 (.003)
L.NPLs growth	-.024 (.022)	-.027 (.017)	-.062** (.027)	-.042 (.187)	-.014 (.016)
L.RON/EUR	-.159***	-.115***	-.185**	-.025	-.069

change	(.053)	(.043)	(.081)	(.405)	(.058)
Constant	-2.341***	-2.739***	-3.97***	-4.973	-2.483*
	(.874)	(.779)	(1.259)	(4.828)	(1.361)
Observations	173	173	173	173	125
R-squared	.201	.4	.234	.095	.118

*Robust standard errors are in parentheses*

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

The main factors shaping the lending growth in the Romanian banking sectors, by loans typology are GDP per capita growth rate, unemployment rate, the Consumer Price Index (%) and RON/EUR change rate. The empirical results from Table 7 highlight a negative relationship between the NPLs growth and the lending growth for the consumer loans. The decreasing of the NPL growth ratio can be assigned to the supporting macroeconomic environment associated with comprehensive monetary and risk policies, portfolio cleaning activities which have been realized by the financial institutions.

*Table 8 Determinants of credit growth by type of credit institutions*

	(1) CG STATE	(2) CG PRIV	(3) CG LEGE	(4) CG BRAN
Covid-19 dummy	1.034***	.573***	.593***	.836**
	(.294)	(.153)	(.158)	(.344)
L.Y	.247***	.264***	.25***	.038
	(.086)	(.061)	(.065)	(.071)
L.GDPC	.077***	.028**	.029**	.069***
	(.019)	(.011)	(.012)	(.026)
L.LTEDS	.001	.001	.001	-.001
	(.001)	(0)	(0)	(.001)
L.UNEMP	-.067	-.056*	-.043	-.252***
	(.077)	(.033)	(.034)	(.087)
L.CPI	.052***	.017***	.017***	.035***
	(.013)	(.005)	(.006)	(.012)
L.STEDS	.004*	0	0	.003
	(.002)	(.001)	(.001)	(.003)
L.NPLs growth	-.041	-.028**	-.031*	-.009
	(.044)	(.014)	(.016)	(.032)
L.RON/EUR change	.105	-.136***	-.104***	-.376***
	(.107)	(.033)	(.033)	(.115)
Constant	-6.102***	-1.651***	-1.758**	-2.625
	(1.731)	(.627)	(.721)	(1.646)
Observations	173	173	173	173
R-squared	.479	.54	.511	.222

*Robust standard errors are in parentheses*

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

We conclude our empirical research by investigating the determinants of the credit growth by financial institutions typology. Table 8 reports the sign and the statistical significance of the Covid-19 dummy, GDP growth per capita, unemployment rate, consumer price index and RON/EUR exchange rate coefficients. NPLs growth ratio can explain the evolution of the credit growth in the case of loans granted by private-owned credit institutions and loans granted by credit institutions – Romanian legal entities.

## 5. CONCLUSIONS

Credit growth and lending levels from an economy are reliable indicators of financial stability, therefore empirical estimates are a subject of interest for supervisors, policy makers and investors likewise. With this study, we extend the literature on credit growth by investigating the link between COVID crisis and credit growth within the Romanian banking sector. Analyzing the period 2000-2022, we empirically assess the impact of COVID pandemic on credit growth. The main results show that COVID crisis influences positively credit growth. Macroeconomic indicators like GDP growth, inflation, and external debt, also significantly affect the lending. These results remain robust when we assess the effects of the pandemic on different subcategories of credit determined by currency, type of loans, maturity, and type of institutions.

### *ACKNOWLEDGEMENT:*

*This work was supported by a grant of the Ministry of Research, Innovation and Digitization, CNCS/CCCDI – UEFISCDI, project number PN-III-P1-1.1-TE-2019-1522, within PNCDI III*

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