10.2478/vjes-2023-0008

The Impact of Monetary Policy on Bank Lending in Romania in the Context of Covid-19

Violeta Elena DRĂGOI
Larisa Elena PREDA
Lavinia Roxana DINCĂ (DIACONU)
"Valahia" University of Târgoviște, Romania
Ana-Mariana DINCU
University of Life Sciences "King Mihai I" from Timisoara, Romania
violeta_dragoi@yahoo.com

Abstract

This study explores the impact of the monetary policy of the National Bank of Romania, with its instruments and objectives during the Covid-19 pandemic, on the banks lending in Romania, considering the data provided by the NBR for the last 6 years. Overall, our findings confirm that the increasing bank lending channel for global monetary policy was active during the pandemic crisis.

Keywords: *monetary policy, inflation, interest rate, minimum reserve requirements, money market operations, permanent facilities*

JEL Classification: G14, G18, G32, M12

Introduction

Monetary policy is a set of decisions central banks make to influence the cost and availability of money in an economy, contributing to sustainable economic development. The central monetary policy instrument is the interest rate which represents the price at which currency is offered. The final objective of the monetary policy adopted by the central banks of several developed or under-developed countries is price stability. A stable economic framework is created by ensuring price stability, which allows sustainable economic development and highlights the increased level of responsibility the central bank assumes for ensuring economic growth.

With the accession to the European Union and, implicitly, its entry into the European System of Central Banks, the National Bank of Romania, as the central bank of the Romanian state, is tasked with analyzing the country's economic situation, assessing the fundamental balances of the economy that can be endangered by one or another evolution

© Author(s) 2023. This work is distributed under the Creative Commons Attribution 4.0. License (http://creativecommons.org/licenses/by-nc-nd/4.0/)

of the macroeconomic indicators, and to adopt the monetary policy strategies to fulfill the main objective of ensuring monetary stability, namely reducing the level of inflation to a level compatible with the membership status of the Economic and Monetary Union. In this context, to consistently fulfill its fundamental objective, the National Bank of Romania changed the monetary policy strategy and officially adopted the direct inflation targeting strategy, which allows targeting the inflation differential forecasts to ensure monetary stability.

The benefits of this monetary policy objective are:

- increasing general well-being and increasing economic potential;
- ensuring financial stability.

Price stability contributes to financial stability because it eliminates dysfunctions and uncertainties that may appear in the markets as a consequence of price instability.

Financial stability represents a situation in which there are no banking crises and in which the price of assets and interest rates present a certain stability.

These two previously mentioned objectives are essential components of the macroeconomic balance and are complementary, with inflation being a main factor of financial instability. With many economies still struggling to boost inflation a decade after the Global Financial Crisis (GFC), central banks were suddenly faced with the challenge of responding to the Covid shock at the start of 2020. The speed of the economic deterioration, the sharp rise in market volatility, and blinding uncertainty about the pandemic's impact in an already low-inflation environment prompted an unprecedented central bank response in terms of the speed, scope, and scale of its policy.

Short-term interest rates, which were already low in most advanced economies, fell rapidly to around zero in all advanced economies. Emerging markets also saw sharp declines in short-term rates, approaching zero in several countries (such as Chile, Poland, Israel and Korea). Central banks have faced the challenge of supporting real economies and stabilizing financial markets through tools other than cuts to key policy rates. While there was broad agreement that fiscal and health policy would play the main role in combating the pandemic and generating a recovery, monetary policy still had a critical role as markets froze, capital flows to emerging markets collapsed, and economic activity stagnated.

The Covid shock presented a problem it had never faced before a sudden global shutdown of economic activity caused by a pandemic. An environment of uncertainty made growth and inflation forecasting extremely challenging.

1. Monetary Policy Management Tools in the Romanian Banking Sector

The central bank implements monetary policy to achieve its fundamental objective with the help of a set of tools and procedures called monetary policy instruments.

The monetary policy instruments that the NBR uses according to the regulations in force are: money market operations; permanent facilities granted to credit institutions; minimum mandatory reserves (RMO).

1.1. Money market operations (open market) is the most important tool of monetary policy and is carried out at the central bank's initiative, with the following functions: guiding interest rates, managing liquidity conditions on the money market and signalling the direction of monetary policy. The main categories of open market operations under the custody of the NBR are:

• repo operations – intended for liquidity injection, in which the NBR purchases eligible assets from other credit institutions, committing to buy them back at a later date and at a predetermined price on the date of the transaction;

• attraction of deposits – transactions with predetermined maturity, intended for liquidity absorption;

• issuance of deposit certificates – transactions intended for liquidity absorption, in which the NBR sells deposit certificates to credit institutions;

• reverse repo operations – reversible transactions, in which the NBR sells assets eligible for trading to credit institutions.

• sales/purchases of assets eligible for trading – the NBR sells/buys such assets, the transfer of ownership over them from the seller to the buyer being made through the "delivery versus payment (DVP)" system, etc.

1.2. The permanent facilities made available by the NBR also aim to provide short-term liquidity (one day), show the general orientation of the monetary policy and stabilize the short-term interest rates on the interbank money market, through the link made by the interest rates related to the two instruments.

There are two facilities made available by the NBR, namely:

- credit facility – allows obtaining a loan with a maturity of one day from the central bank, at a predetermined interest rate, an interest rate that represents a ceiling of the overnight interest rate of the money market;
- the deposit facility – allows placing a deposit with a maturity of one day at the central bank, at a predetermined interest rate; this rate representing the overnight interest rate threshold of the money market.

Interest rates on permanent facilities follow a symmetric corridor around the policy rate.

1.3 Mandatory minimum reserves (RMO) constitute banks' cash availability, in lei and in foreign currency, kept in accounts opened at the NBR. Those opening in lei have as their main functions the functions of monetary control and the stabilization of interest rates on the interbank money market. The main task of the foreign currency RMO is to moderate the expansion of foreign currency credit.

They have the following main characteristics:

- the basis for calculating the RMO is determined as the average daily balance level of the liability elements in lei and in foreign currency from the banks' balance sheets;
- RMO rates can be differentiated both according to the currency of constitution and according to the residual maturity of the elements included in the calculation base;
- RMO is realized as the average daily level of availability maintained during the application period in the accounts opened at the NBR;
- a penalty interest is applied to the deficit of reserves, and repeated violations are sanctioned by warning, fines or limitation of the credit institution's operations.

The year 2020 has been severely marked by the global shock wave since the outbreak of the COVID-19 pandemic. The NBR adopted a package of measures aimed at mitigating the economic impact of the pandemic, but also at strengthening liquidity in the banking system so as to ensure the proper functioning of the money market and other

financial market segments, as well as the smooth financing of the real economy and the public sector. The package included a reduction in the monetary policy rate by 0.50 percentage points to 2.00 percent a year; the narrowing of the corridor defined by interest rates on standing facilities around the monetary policy rate to ±0.5 percentage points from ±1.0 percentage point; decisions on carrying out repo operations to provide liquidity to credit institutions; purchases of government bonds in lei from the secondary market.

Table 1.

The Monetary Policy Interest Rate

Year	(%)
2022	6,75
2021	1,25
2020	2
2018	2,25
2017	1,75
2015	2

(Source: www.NBR.ro – Statistics)

From the previous table, it can be seen that the reference interest rate fluctuates from year to year. Thus, from 2015 to 2017 it decreased from 2% to 1.75%, reaching 2.25% in 2018. (Table 1) This increase in a few months implies an encouragement of saving, being influenced by all users who have loans with variable interest (increase in loan rates in lei). Subsequently, a one percentage point decrease is visible from February 2018 to October 2021, thus encouraging consumption and investment. Inflation is also accentuated and emphasis is placed on facilitating access to credits. For the interest rate to be analyzed correctly, the monetary policy interest rate and the interbank money market interest rate are considered. Thus, the NBR uses the interest rate on the attracted deposits (ROBID) and on the placed deposits (ROBOR). ROBID is the average interest rate at which a bank is willing to borrow from another financial institution, and ROBOR is the rate at which a bank is willing to lend to another bank. (Table 2)

The following table will show these rates for the end of the last 6 years.

Table 2.

The interest rate on the attracted deposits and on the placed deposits

			O/N	T/N	1w	1M	3M	6M	9M	12M
31.12.2016			0,25	0,25	0,28	0,35	0,46	0,58	0,65	0,7
31.12.2017			0,73	0,73	0,88	1,49	1,66	1,77	1,79	1,81
31.12.2018			2,39	2,41	2,47	2,52	2,70	2,92	3,03	3,12
31.12.2019	**ROBID**		2,13	2,34	2,43	2,75	2,86	2,88	-	2,95
31.12.2020			1,33	1,52	1,64	1,72	1,73	1,76	-	1,79
31.12.2021			1,85	1,86	2,06	2,49	2,71	2,79	-	2,88
			5,56	5,60	5,76	6,32	7,27	7,49	-	7,76
31.12.2016			0,56	0,57	0,63	0,76	0,9	1,11	1,19	1,25
31.12.2017			1,09	1,11	1,24	1,87	2,05	2,27	2,3	2,32
31.12.2018			2,69	2,71	2,78	2,84	3,02	3,3	3,42	3,51
31.12.2019	**ROBOR**		2,43	2,63	2,72	3,04	3,18	3,24	-	3,31
31.12.2020			1,63	1,82	1,94	2,01	2,03	2,10	-	2,13

			O/N	T/N	1w	1M	3M	6M	9M	12M
31.12.2021			2,13	2,15	2,35	2,79	3,01	3,13	-	3,23
			5,85	5,89	6,05	6,61	7,57	7,81	-	8,09

(Source: www.NBR.ro – Statistics)

Analyzing the previous table, we can see that, for the most part, both ROBID and ROBOR recorded increases from 2016 to 2018, this aspect being highlighted by the increase in inflation. By increasing them, banks want to attract liquidity. In 2019-2020, these rates decreased by approximately one percentage point. This is explained by the decrease in the monetary policy interest rate of the NBR, the banks expecting to be able to place the available funds at lower interest rates.

The following table presents an overall picture of the interest rates on the credit and deposit facilities in Romania over the last 6 years.

Table 3.

The Evolution of Interest Rates on the Credit and Deposit Facility

Date	Lending facility rate (%)	Deposit facility rate (%)
2022	7,75	5,75
2021	2	1
2020	2	1
2019	3,5	1,5
2018	3,25	1,25
2017	2,75	0,75

(Source: www.NBR.ro – Statistics)

From the table it can be seen that both the interest rate on the credit facility and the interest rate on the deposit facility have an increasing trend from 2017 to 2019, the rate for loans increases from 2.75 to 3.5 percent, and for deposits from 0.75% to 1.5%. In 2020 and 2021, there is a 2% and 1% decrease, respectively, to increase to 7.75% and 5.75% in 2022. The deposit and lending facility rates were also gradually reduced to 0.75 percent and 1.75 percent per year, respectively.

Given the lack of liquidity in the money market, the NBR's key rate cuts in 2020 were accompanied by decisions to continue repo transactions and continue the purchase of government securities in lei from the secondary market while maintaining the rate mandatory minimum reserves for liabilities in lei of credit institutions at 8 percent; however, the minimum reserve ratio for foreign currency liabilities was cut in November, to 5 percent from 6 percent. (Table 4)

Table 4.

Evolution of the RMO Rate

Year	Subsidized interest rate on mandatory minimum reserves (%)			Rate mandatory minimum reserves (%)	
	Lei	Usd	Eur	Lei	Currency
2017	0.08	0.07	0.03	8.00	8.00
2018	0.2	0.12	0.02	8.00	8.00
2019	0.2	0.1	0.1	8.00	8.00
2020	0.11	0.02	0.00	8.00	6.00

Year	Subsidized interest rate on mandatory minimum reserves (%)			Rate mandatory minimum reserves (%)	
	Lei	Usd	Eur	Lei	Currency
2021	0.09	0.01	0.00	8.00	5.00
2022	0,7	0,08	0,02	8.00	5.00

(Source: www.NBR.ro – Statistics)

The RMO rate expressed in lei remained constant during the first 5 years, it remains at the level of 8%, after which it decreased to 5.25% in 2022. As for the rate of mandatory minimum reserves in foreign currency, they remain at the same percentage of 8% from 2017 to 2019 inclusive. In the next 3 years, it will decrease, up to 6% in 2020 and even 2.75% in 2022, a decision instituted in the context of reducing foreign currency credit, consolidating foreign exchange reserves above the appropriate level and improving their structure.

Maintaining the same level of the mandatory minimum reserve ratio in lei and in foreign currency supports the encouragement of banks to grant loans in foreign currency.

The following chart provides a clear picture of the rate assessed in both domestic and foreign currency.

Through its decisions, the central bank aimed to support the recovery of economic activity after the contraction induced by the pandemic, with a view to bringing and consolidating the annual inflation rate in the medium term in line with the inflation target of 2.5 percent ±1 percentage point, while maintaining financial stability.

The implementation of the decisions regarding the monetary policy rate was accompanied by sustained but carefully calibrated actions undertaken by the NBR to ensure the necessary liquidity for the banking system. In addition, for precautionary reasons, the NBR and the ECB have agreed on the establishment of an urgency to provide euro liquidity to the NBR to meet potential urgent euro liquidity needs that may have arisen following the market disruptions induced by the pandemic crisis.

2. The Effects of Monetary Policy on the Economy

Monetary policy constitutes all the channels through which the central bank, using the instruments specific to monetary policy, influences the dynamics of aggregate demand and prices in the economy. According to specialized literature, these transmission channels are: the channel of interest rates practiced by financial institutions, the channel of credit, the channel of the exchange rate, the channel of wealth and balance sheet effects, the channel of expectations of economic agents regarding inflation.

Most of the time, monetary policy decisions spill over into the economy indirectly, with the help of the financial-banking system. The central bank effectively controls short-term interest rates by managing liquidity on the interbank money market. The economy is, however, much more affected by the medium and long-term interest rates applied by commercial banks in attracting deposits and placing loans. These interest rates depend on the monetary policy interest rate, inflation, economic growth, etc.

Interest can be assessed as follows:

- low-interest rates, stimulate investment and consumption to the detriment of saving;
- high-interest rates, simulate saving, inhibiting consumption and investment in the short term.

Also, the demand of external customers for export products can significantly contribute to the economy. In the short or even medium term, monetary policy can affect the gap between the actual level of output and the long-term sustainable level, in other words the deviation of real GDP from its potential level.

Through its role on interest rates, the central bank may have the ability to influence economic agents in such a way that they use, respectively, hold accounts in lei, and not in foreign currency. So, the evolution of the exchange rate can be another factor that can influence the economy. This exchange rate also has influences on the goods made at the level of the country compared to those from exports.

The wealth and balance sheet effect supports the fact that a depreciation of the leu's exchange rate generates a decrease in the demand for loans in foreign currency and, at the same time, a decrease in the disposable income of those who already have such loans. So, those who earn their income in lei will pay more in order to pay off their debt. On the other hand, the appreciation of the exchange rate will increase the motivation of economic agents to borrow more in foreign currency than in lei.

The changes in the exchange rate influence a whole series of prices, such as those of imported goods, the price of fuels, administration prices (pharmacy, telephone), the price of complementary/substitutable goods to imported ones.

One of the most essential and effective channels for the transmission of monetary policy is the channel of expectations of economic agents regarding inflation, leading to an increase in the transparency and credibility of the central bank's actions.

3. The Role of Monetary Policy in the Romanian Economy

A country's inflation depends on the aggregate demand ratio in that country's economy to its ability to provide goods and services. Monetary policy ensures and maintains price stability, this objective being quantitatively translated into inflation targets.

A restrictive monetary policy will lead to an increase in interest rates and therefore to a decrease in market demand. This will determine the reduction of the inflationary pressure and hence the price increase decrease. If the increase in the money supply and implicitly in production leads to a reduction in the interest rate, it leads to a decrease in the interest rate, the demands for investments will increase, and also the prices, which will inevitably lead to an increase in inflation.

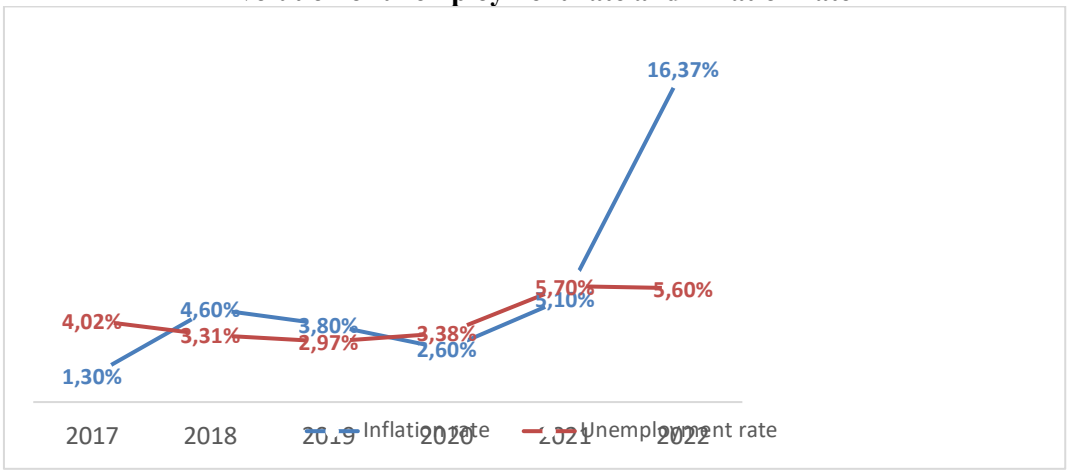
After the outbreak of the pandemic, the general level of risks to financial stability in Romania was high, due to the worsening of economic and financial conditions, similar to developments worldwide. Specifically, the risk of a worsening on domestic macroeconomic balances was severe, while the risk of default on loans to the private sector and global uncertainty in the context of the pandemic were assessed as high.

The following graph shows the evolution of inflation and unemployment over the last 5 years. It can be observed that in the first two years, the inflation rate has an increasing trend, which causes an increase in prices and a decrease in the purchasing power in lei, an unfavourable aspect for the economy and implicitly for society. The fact that in 2020 the inflation rate drops by approximately 2 percentage points, from 4.6% to 2.6% is favourable, thus leading to the improvement of the economic climate. But the increase of this indicator up to 5.10% in 2021 indicates that the purchasing power in lei has decreased a lot. (Figure 1.)

On the other hand, the unemployment rate does not change much in value during the first 4 years. This decreased from 4.02% in 2017 to 2.97 in 2019, an aspect considered favourable. This means that the number of unemployed has decreased, and the fact that in 2020 and 2021, the unemployment rate is higher than the inflation rate, illustrates the change in the number the unemployed amid increased production.

Figure 1.

Evolution of unemployment rate and inflation rate

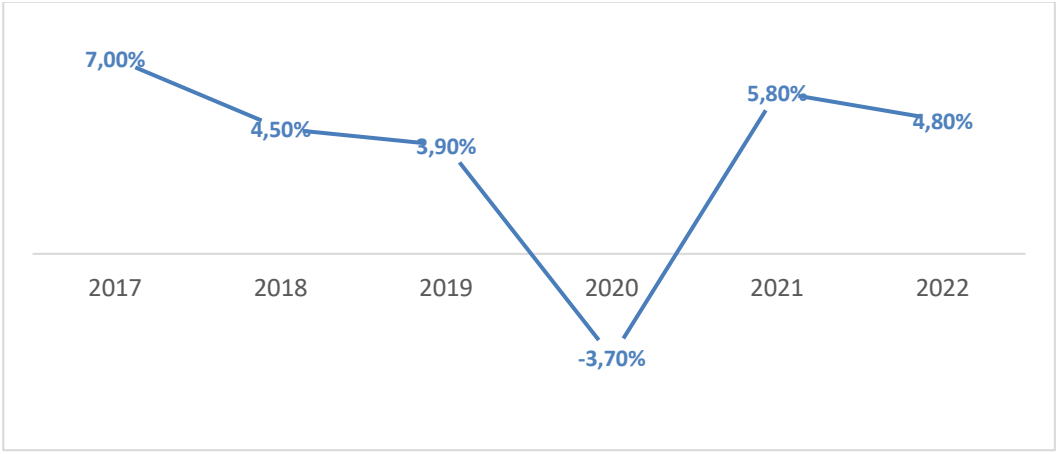


(*Source: NBR)*

The gross domestic product is also of particular importance in monetary policy. Its evolution for the last 6 years is shown in the following graph:

Figure 2.

Evolution of GDP in Romania



(*Source: NBR)*

From the previously presented, the gross domestic product oscillates, it has an upward trend for the most part. It can be observed that in 2018 compared to 2017 it increased by 3.5p.p.

The variation of the gross domestic product in 2020 year was decreasing, the GDP decreased significantly, from a variation of +3.9% to -3.7%, this aspect is totally unfavourable for Romania and is largely due to the pandemic caused by SARS - CoV-2. (Figure 2)

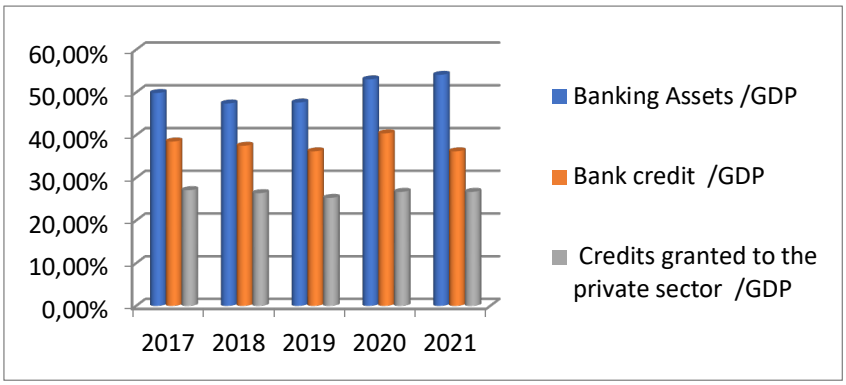
During 2020, the banking sector continued to perform adequately from a macroprudential perspective. In this sense, it is important to emphasize that, at the beginning of the pandemic, the structure of the banking sector's balance sheet was favourable for the adequate management of liquidity shocks. The high share of liquid assets (especially government securities and exposures to the central bank) and the traditional financing model – based mainly on household deposits – contributed to the good resilience of credit institutions, amid the challenges brought by the public health crisis.

The ratio of non-performing loans and the ratio of restructured loans show that the banking sector in Romania is in the intermediate risk category, while the adequate value of non-performing loans coverage by provisions had a counterbalancing influence. The measures adopted by the NBR, following the guidelines and recommendations of the EBA and CERS, as well as the package of economic support measures implemented by the public authorities in the context of the health crisis supported the development of lending activities and allowed the postponement of the payment of loans for debtors affected by the pandemic.

Bank loans to the private sector, affected in the second quarter of the year by the administrative measures taken by the public authorities following the outbreak of the pandemic, subsequently recorded faster dynamics, their annual growth reaching 5.5 percent (in nominal terms) in December 2020. Considering the advance of the component in lei, against the background of government programs and the decrease in interest rates, the share of national currency exposures in total private sector credit reached around 70 percent at the end of the year, thus mitigating the risks associated with potential downsides, the evolution of the exchange rate of the Leu.

Figure 3.

Indicators of Financial Intermediation



(Source: NBR)

For 2021, lending data showed non-government credit growing by 5.5% to €58 billion. Thus, in 2021, paradoxically, we witnessed an increase in financial intermediation to 26.8% - from 25.3% in 2019. The new credit granted to corporations and the population was 84 billion lei in 2021 and had a weight of almost one third of the balance of non-governmental loans. (Figure 3)

The average growth rate of credits granted to the private sector increased to 10.7 percent in 2021 (compared to 5.5 percent in 2020), the acceleration of the rate being determined by the substantial increase in lending activity in lei (from 8 .5 percent at the end of 2020 up to 19.6 percent in December 2021), both on the population segment and on that of non-financial companies, in the context of tempering the pace of credit outsourcing operations carried out by credit institutions.

Conclusion

The monetary policy maximizes welfare, ensuring price stability and keeping output as close to potential as possible. In Romania, monetary policy aims to reduce inflation, which has happened in the last two years. The NBR ensures a macroprudential framework suitable for restoring economic balances and maintaining financial stability.

When the economic expansion occurs, the NBR adopts a restrictive behaviour by increasing the minimum reserve requirements, increasing the monetary policy interest rates and emphasizing the lending norms. In a period of economic recession, the NBR does precisely the opposite of what it says: it reduces the monetary policy interest rates and the minimum reserves requirements.

In conclusion, monetary policy reduces uncertainty in the economy and contributes to an efficient allocation of resources as follows: it facilitates the formulation of business plans, improves the functioning of markets, enhancing the signal role of price changes, discourages speculative activities, eliminates unanticipated inflation, facilitates the formation of resources for investments and trains them in productive activities.

References

Gustavo S. Cortes, George P. Gao, Felipe B. G. Silva, Zhaogang Song (2022), *Unconventional monetary policy and disaster risk: Evidence from the subprime and COVID–19 crises,* Journal of International Money and Finance 122, Unconventional monetary policy and disaster risk: Evidence from the subprime and COVID–19 crises - ScienceDirect

Joshua Aizenman, Hiro Ito, Gurnain Kaur Pasricha (2022), *Central bank swap arrangements in the COVID-19 crisis,* Journal of International Money and Finance 122, Central bank swap arrangements in the COVID-19 crisis - ScienceDirect

Mark M. Spiegel(2022), *Monetary policy spillovers under COVID-19: Evidence from lending by U.S. foreign bank subsidiaries,* Journal of International Money and Finance 122, Monetary policy spillovers under COVID-19: Evidence from lending by U.S. foreign bank subsidiaries - ScienceDirect

Mishkin F., Bordes C., Hautcœur P.-C., Lacoue-Labarthe D. (2007), *Monnaie, banque et marchés financiers,* 8e édition, Pearson Education,.

Olteanu A., Rădoi (Olteanu) M.A. (2005), *Politici şi strategii naţionale şi comunitare în domeniul financiar-bancar*, Editura Dareco Bucharest

Zăpodeanu D. (2002), *Politici monetare*, Editura Dacia, Cluj Napoca,

Banca Naţională a României, www.bnr.ro, Banca Naţională a României - Publicaţii periodice (bnr.ro)