

THE INFLUENCE OF THE MONETARY POLICY INTEREST RATE, INFLATION AND EXCHANGE RATE ON THE CONSUMER CREDIT BENCHMARK IN ROMANIA DURING THE COVID-19 CRISIS

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Abstract

The banking system represents the most important component of the financial system, "heart of the economy", its role being identified, mainly, in two plans. Thus, first of all, it is vital for maintaining a good functioning of the economy, the National Bank of Romania having prerogatives in ensuring price stability. Secondly, credit institutions, through their function as financial intermediaries, ensure a real process of financing the needs registered by the economic environment. Maintaining price stability in difficult economic conditions, of systemic shock, caused by the COVID-19 pandemic, required the adoption of measures by the National Bank of Romania to mitigate the negative effects. One of the measures adopted by the central bank during the pandemic was the reduction of the policy interest rate by 0.5 pp. In this context, from the research carried out on the basis of an econometric analysis, it emerged that the change in the consumer credit benchmark is also influenced by the positive or negative evolution of other economic factors, such as the monetary policy interest rate, the variation of the consumer price index and the fluctuation of the exchange rate.

Keywords: monetary policy, economic crisis, COVID-19 pandemic, banking system, price stability

Clasificare JEL : E52, E58

1. Introduction and context of the study

Maintaining the stability of the banking system is a *sine qua non* condition for the operation in optimal parameters of the economy. Being the most important financial intermediary of the economy and beyond the current day-to-day operations that banks carry out, both at the macro and microeconomic level, economic shocks propagated "cross-country" [1] with implications on the economy world events, such as the great interwar depression of 1929-1933, the oil crisis of 1973, the stock market crash of 1982, the great recession of 2007, the COVID-19 pandemic of 2020, the Russian-Ukrainian war, validate the importance of maintaining economic stability and highlight the need for clear supervision and regulation of the entire banking system.

An economic crisis represents a moment of instability and stagnation in the evolution of a society, a sudden economic decline that can be triggered by several factors. The economic crisis has been analyzed by many authors and has always created various controversies. Numerous studies [2] have highlighted the fact that an economic crisis cannot be managed by itself, the only way to counteract it is to revolutionize faulty macroeconomic policies.

Considering these aspects, the work is further structured as follows: section 2 includes a brief history of economic crises and measures to counteract, prevent and mitigate negative effects, section 3 involves an econometric analysis whose objective is to identify the answer to the question "what is the influence of the monetary policy interest rate, inflation and the EUR/RON exchange rate on the consumer credit benchmark in Romania during the COVID-19 crisis?" and in the last section the conclusions are presented.

2. The COVID-19 pandemic – a different kind of economic crisis

An economic crisis can become a banking crisis through the phenomenon of contagion, and this is an event in which one or more credit institutions in a certain country or group encounter liquidity difficulties or insolvency. According to [3], the banking crisis occurs when the bank's capital is exhausted. It is mentioned that these crises are based on bank bankruptcies of systemic importance, the flight of depositors, the high level of non-performing loans or certain emergency decisions of the government [4]. Moreover, [5] differentiate two types of banking crises: severe banking crises characterized by risks of massive withdrawals of deposits leading to bankruptcy and closure of credit institutions (Venezuela 1993, Argentina 2001) and less severe banking crises characterized of financial difficulties leading to the closure, merger, takeover of a major financial institution and which will be followed by other financial institutions (Thailand 1996-1997).

Considering the crisis events of the past, we can say that they appear after periods of economic boom and their effects lead to the spiral evolution of human society, such as the Great Depression (1929-1933), the crisis that erupted after a period of boom industrial, characterized by the latency between the ability of the industry to provide competitive products and the ability of customers to buy them, the stock market had grown because it had become a way to get easy money and there were no clear regulations in the banking system and the Great Recession of 2007, the crisis that it was generated by excessive lending in the US because banks were not concerned with the level of credit risk, lending conditions and standards were too relaxed and given to customers with an inappropriate risk profile.

As a result of the consequences of the global financial crisis, internationally, in order to reduce the effect of cross-border contamination of risks of a systemic nature, the "European Committee for Systemic Risk (CERS, 2011) was established, which together with the European Occupational Insurance and Pensions Authority, the European Banking, the European Securities Authority forms the European Financial Supervisory System, and at the national level to ensure the integrity and transparency of the financial system, the National Bank of Romania has worked with the Financial Supervisory Authority and the Government." [6]

The ESRB is "responsible for the macroprudential supervision of the EU financial system and contributes to the prevention or reduction of systemic risks in the Union as a whole or in its regions, including the identification and analysis of risks to financial stability, regardless of their origin." [7]

Based on past events, in order to limit the effects of the crises that would also affect the banking system, at the national level, the authorities worked together through the National Bank of Romania and at the European level through the European Systemic Risk Committee to counteract the consequences of the economic crisis and the effect of cross-border contamination of risks of a systemic nature.

Marked by the health crisis, the year 2020 was in the first stage a year of uncertainty, rethinking, reorientation, digitization, which operatively mobilized the authorities and institutions at global level to limit the serious negative social, financial and economic consequences. In other words, the COVID-19 Pandemic generated a severe systemic shock [8] globally. It was a shock the world had not faced for a long time, resulting in the loss of human life on the one hand and a dramatic decline in the economy on the other. Considering the global amplitude of the COVID-19 Pandemic, the National Bank of Romania acted quickly and adopted a series of measures to mitigate the negative impact of the pandemic on the banking system and the entire economy.

Several authors have carried out studies on the influence of the pandemic on global bank lending [9] or analyzes between countries on banking systemic risk around COVID-19 [10] or the resilience of banks in the COVID- 19 [11], and their results show us that the global banking system has remained stable and there is no question of a new banking crisis.

3. Research methods and results

The working hypothesis that was the starting point of the research carried out is the identification of the influence of the monetary policy interest rate, inflation and the EUR/RON exchange rate on the consumer credit benchmark in Romania during the COVID-19 crisis. An econometric analysis was carried out to identify the relationships between the independent variables represented by the monetary policy interest rate, the consumer price index and the exchange rate and a dependent variable, namely the consumer credit benchmark. In order to validate the working hypothesis, a binomial model with 4 variables (3 independent variables and a dependent variable) was created, and "Output" validity tests will be performed to validate the results obtained. In order to carry out this econometric study, the qualitative method was applied, the E-views application being used, and the data related to the variables for the period October 2019-October 2022 being processed. (Appendix 1 and 2).

The variables used were noted as follows: "IRCC" - monthly consumer credit benchmark (source www.bnr.ro, own monthly processing in Excel), "Politica monetară" - for monthly monetary policy interest rates (source www.bnr.ro), "CURS_SCHIMB" - for the monthly eur/ron exchange rate (source www.bnr.ro), "IPC" - for the consumer price index (source www.insse.ro and www.bnr.ro).

The prediction of the dependent variable IRCC calculated in E-views and the validation of the results is reflected in Tables 1.1 1.5:

Table no. 1 Estimation output

Dependent Variable: IRCC Method: Least Squares Date: 11/21/22 Time: 16:47 Sample: 2019M10 2022M10 Included observations: 37				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.157833	8.376509	1.093276	0.2822
R_POLITICA_MONETARA	0.900888	0.118852	7.579884	0.0000
IPC	0.064422	0.039524	1.629941	0.1126
CURS_SCHIMB	-1.876890	1.714047	-1.095005	0.2814
R-squared	0.967626	Mean dependent var	2.478108	
Adjusted R-squared	0.964682	S.D. dependent var	1.460464	
S.E. of regression	0.274465	Akaike info criterion	0.353818	
Sum squared resid	2.485920	Schwarz criterion	0.527971	
Log likelihood	-2.545633	Hannan-Quinn criter.	0.415215	
F-statistic	328.7737	Durbin-Watson stat	1.608869	
Prob(F-statistic)	0.000000			

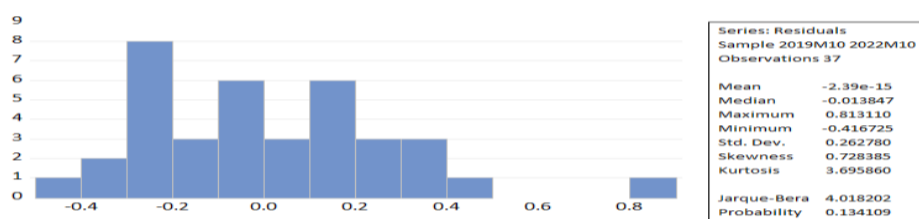
Own processing, E-views

Considering the estimation output of the above parameters, the equation is formed:

$$\text{IRCC} = 0.900 * \text{Politica_monetara} + 0.064 * \text{IPC} - 1.87 * \text{CURS_SCHIMB}$$

This equation assumes that the independent variables have a direct relationship with the dependent variable resulting from the positive result obtained, which means that when monetary policy increases by one unit, other variables remaining constant, the consumer credit benchmark increases by 0,900 units. If the exchange rate increases by one unit, other variables remaining constant, the monthly consumer credit benchmark will decrease by 1.876 units and if the consumer price index increases by one unit, the consumer credit benchmark will increase by 0.064 units. The R-squared coefficient of determination is 0.967, which means that this model is probably correct and the corresponding percentage 96.7% can be used in economic studies and analysis.

Table no. 2 Normality test

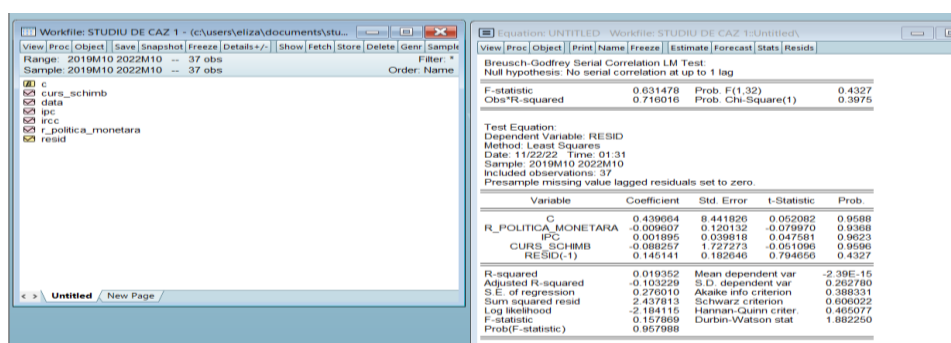


Own processing, E-views

The output shown above shows us the histogram of the distribution, the median, the mean, the maximum values and the minimum values, the skewness coefficient, the standard deviation, the kurtosis of the series and the Jarque-Bera test. According to the obtained results, the distribution is normal because the skewness coefficient (asymmetry coefficient) is close to 0, which means that it is a symmetric distribution, and the kurtotic has a value greater than 3, which means that this distribution is leptokurtotic [12]

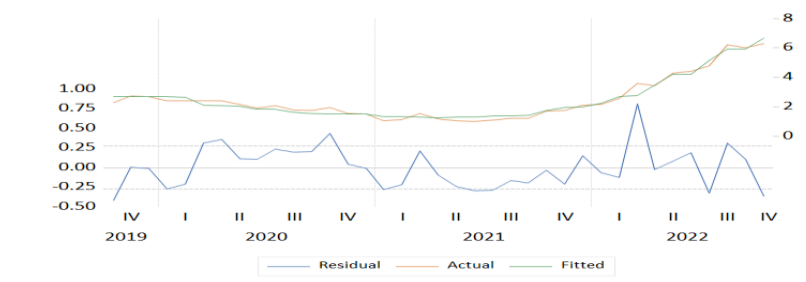
The leptokurtotic distribution assumes that the probability of occurrence of an extreme event is much higher than the probability of occurrence of that event in a normal distribution. The Jarque-Bera test shows us that a distribution is normally distributed and has based on the null hypothesis, in our case, given that the probability has a value close to 0, the null hypothesis is rejected and the series is normally distributed.

Table no. 3 Autocorrelation of errors



Own processing, E-views

Table no. 4 Graphical autocorrelation of errors



Own processing, E-views

In this graph you can see the direct linear relationship between the dependent variable and the independent variables. The test that shows us the serial correlation of the errors is the Durbin Watson Statistic (DW) test. If prob f = 0 and the value of DW is close to 2 it means that the errors are not correlated [13].

Table no. 5 Multicollinearity

Command			
View	Proc	Object	Print Name Freeze Estimate Forecast Stats Resids
Variance Inflation Factors			
Date: 11/22/22 Time: 02:30			
Sample: 2019M10 2022M10			
Included observations: 37			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
R_POLITICA_MON...	0.004172	14.25167	3.435648
IPC	0.000311	9.660120	3.435648
C	0.008649	4.223360	NA

Own processing, E-views

To test the existence of multicollinearity, the VIF (Variance inflation factor) test was used, and if the value is less than 5, the phenomenon of multicollinearity is not present in this model.

Table no. 6 Heteroskedasticity testing – White's test

View	Proc	Object	Print Name Freeze Estimate Forecast Stats Resids
Heteroskedasticity Test: White			
Null hypothesis: Homoskedasticity			
F-statistic	0.419277	Prob. F(8,28)	0.8996
Obs*R-squared	3.958191	Prob. Chi-Square(8)	0.8609
Scaled explained SS	4.244128	Prob. Chi-Square(8)	0.8345

Own processing, E-views

Hypotheses:

- H0: The model is homoscedastic if $\alpha_1 = \alpha_2 = \dots = \alpha_k = b_1 = b_2 = \dots = b_k = 0$
- H1: The model is heteroscedastic if $H_1 \exists \alpha_j \neq 0 \text{ or } b_i \neq 0$

Starting from the test statistic: $W = N \cdot R\text{-squared} = 3.9581$

$\text{Prob}(F) = 0.89 > 0.1$, which means that the null hypothesis that the model is homoscedastic is accepted.

$\text{Prob}(\text{chi-square}) = 0.86 > 0.1$, which means that the null hypothesis that the model is homoscedastic is accepted.

5. Conclusions

From the research carried out, it can be seen that the change in the consumer credit benchmark is also influenced by the positive or negative evolution of other economic factors, such as the monetary policy interest rate, the variation in the consumer price index and exchange rate fluctuations. In the present case, the sudden increase in the consumer price index and the monetary policy interest rate may favor the emergence of a new extreme economic event.

6. Bibliography

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Appendix 1

DATA	IRCC
31.10.2022	6.66
28.10.2022	6.93
27.10.2022	6.97
26.10.2022	7.03
25.10.2022	7.06
24.10.2022	7.06
21.10.2022	5.33
20.10.2022	5.45
19.10.2022	5.39
18.10.2022	5.32
17.10.2022	5.46
14.10.2022	5.69
13.10.2022	5.87
12.10.2022	6.16
11.10.2022	6.43
10.10.2022	6.49
07.10.2022	6.58
06.10.2022	6.75
05.10.2022	6.41
04.10.2022	6.44
03.10.2022	6.45
Oct. 2022	6.28
30.09.2022	6.4
29.09.2022	6.61
28.09.2022	6.63
27.09.2022	6.48
26.09.2022	6.44
23.09.2022	6.04
22.09.2022	4.76
21.09.2022	4.82
20.09.2022	5.18
19.09.2022	5.6
16.09.2022	5.89
15.09.2022	6.05
14.09.2022	6.17
13.09.2022	6.16
12.09.2022	6.17
09.09.2022	6.18
08.09.2022	6.19
07.09.2022	6.2
06.09.2022	6.21
05.09.2022	6.22
02.09.2022	6.23

01.09.2022	6.24
Sept. 2022	6.03
31.08.2022	6.4
30.08.2022	6.46
29.08.2022	6.48
26.08.2022	6.55
25.08.2022	6.58
24.08.2022	6.47
23.08.2022	6
22.08.2022	6.15
19.08.2022	6.24
18.08.2022	6.35
17.08.2022	6.31
16.08.2022	6.26
12.08.2022	6.26
11.08.2022	6.23
10.08.2022	6.25
09.08.2022	6.25
08.08.2022	6.11
05.08.2022	5.87
04.08.2022	5.86
03.08.2022	5.85
02.08.2022	6.03
01.08.2022	5.99
Aug. 2022	6.22
29.07.2022	5.98
28.07.2022	6.06
27.07.2022	5.91
26.07.2022	5.89
25.07.2022	5.97
22.07.2022	4.21
21.07.2022	3.97
20.07.2022	3.94
19.07.2022	4.07
18.07.2022	4.24
15.07.2022	4.28
14.07.2022	4.32
13.07.2022	4.31
12.07.2022	4.31
11.07.2022	4.53
08.07.2022	4.73
07.07.2022	4.93
06.07.2022	4.73
05.07.2022	4.76
04.07.2022	4.98

01.07.2022	4.79
Iul. 2022	4.8
30.06.2022	4.87
29.06.2022	4.85
28.06.2022	4.84
27.06.2022	4.93
24.06.2022	4.97
23.06.2022	2.98
22.06.2022	2.96
21.06.2022	3.3
20.06.2022	3.57
17.06.2022	3.76
16.06.2022	4.01
15.06.2022	4.62
14.06.2022	5.16
10.06.2022	4.8
09.06.2022	4.77
08.06.2022	4.75
07.06.2022	4.77
06.06.2022	4.78
03.06.2022	4.81
02.06.2022	4.82
Iun. 2022	4.41
31.05.2022	4.78
30.05.2022	4.93
27.05.2022	4.84
26.05.2022	4.8
25.05.2022	4.85
24.05.2022	4.8
23.05.2022	4.01
20.05.2022	3.86
19.05.2022	3.35
18.05.2022	3.17
17.05.2022	3.36
16.05.2022	4.11
13.05.2022	4.41
12.05.2022	4.74
11.05.2022	4.84
10.05.2022	4.28
09.05.2022	4.18
06.05.2022	4.11
05.05.2022	4.1
04.05.2022	4.12
03.05.2022	4.21
02.05.2022	4.09

Mai 2022	4.27
29.04.2022	4.05
28.04.2022	4.06
27.04.2022	4.04
26.04.2022	3.99
21.04.2022	2.59
20.04.2022	2.16
19.04.2022	2.3
18.04.2022	2.24
15.04.2022	3.03
14.04.2022	3.22
13.04.2022	3.37
12.04.2022	3.62
11.04.2022	3.81
08.04.2022	3.95
07.04.2022	3.98
06.04.2022	3.99
05.04.2022	3.64
04.04.2022	3.71
01.04.2022	3.74
Apr. 2022	3.44
31.03.2022	3.57
30.03.2022	3.8
29.03.2022	3.79
28.03.2022	3.67
25.03.2022	3.74
24.03.2022	3.63
23.03.2022	3.43
22.03.2022	3.48
21.03.2022	3.48
18.03.2022	3.6
17.03.2022	3.62
16.03.2022	3.6
15.03.2022	3.54
14.03.2022	3.54
11.03.2022	3.57
10.03.2022	3.59
09.03.2022	3.63
08.03.2022	3.62
07.03.2022	3.62
04.03.2022	3.56
03.03.2022	3.56
02.03.2022	3.53
01.03.2022	3.58
Mar. 2022	3.59
28.02.2022	3.61

25.02.2022	3.37
24.02.2022	3.03
23.02.2022	1.8
22.02.2022	2
21.02.2022	2.35
18.02.2022	2.05
17.02.2022	1.85
16.02.2022	1.99
15.02.2022	2.53
14.02.2022	2.85
11.02.2022	3
10.02.2022	3.16
09.02.2022	2.94
08.02.2022	2.88
07.02.2022	2.74
04.02.2022	2.44
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01.02.2022	2.14
Feb. 2022	2.55
31.01.2022	2.15
28.01.2022	2.09
27.01.2022	2.07
26.01.2022	2.06
25.01.2022	2.02
21.01.2022	1.3
20.01.2022	1.35
19.01.2022	1.22
18.01.2022	1.33
17.01.2022	1.92
14.01.2022	1.24
13.01.2022	1.22
12.01.2022	1.33
11.01.2022	1.47
10.01.2022	1.72
07.01.2022	1.33
06.01.2022	1.55
05.01.2022	1.81
04.01.2022	1.8
03.01.2022	1.91
Ian. 2022	2.15
31.12.2021	2.04
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29.12.2021	2.08
28.12.2021	2.31
27.12.2021	2.32

24.12.2021	2.35
23.12.2021	1.69
22.12.2021	2.16
21.12.2021	2.51
20.12.2021	2.41
17.12.2021	2.19
16.12.2021	1.93
15.12.2021	1.95
14.12.2021	1.89
13.12.2021	2.01
10.12.2021	2.05
09.12.2021	2.14
08.12.2021	2.09
07.12.2021	2.15
06.12.2021	2.1
03.12.2021	2.12
02.12.2021	2.17
Dec.2021	2.12
29.11.2021	2.14
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23.11.2021	1.11
22.11.2021	1.48
19.11.2021	1.08
18.11.2021	1.22
17.11.2021	1.29
16.11.2021	1.43
15.11.2021	1.71
12.11.2021	1.75
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10.11.2021	2.01
09.11.2021	1.99
08.11.2021	1.97
05.11.2021	1.96
04.11.2021	1.93
03.11.2021	1.88
02.11.2021	1.89
01.11.2021	1.87
Nov. 2021	1.74
29.10.2021	1.88
28.10.2021	1.98
27.10.2021	1.95
26.10.2021	1.99
25.10.2021	1.91
22.10.2021	1.28

21.10.2021	1.1
20.10.2021	1.17
19.10.2021	1.25
18.10.2021	1.53
15.10.2021	1.82
14.10.2021	1.83
13.10.2021	1.84
12.10.2021	1.82
11.10.2021	1.85
08.10.2021	1.87
07.10.2021	1.86
06.10.2021	1.87
05.10.2021	1.7
04.10.2021	1.63
01.10.2021	1.66
Oct. 2021	1.7
30.09.2021	1.65
29.09.2021	1.65
28.09.2021	1.59
27.09.2021	1.44
24.09.2021	1.41
23.09.2021	0.86
22.09.2021	0.89
21.09.2021	0.86
20.09.2021	1.2
17.09.2021	0.93
16.09.2021	0.97
15.09.2021	1.01
14.09.2021	1.08
13.09.2021	1.22
10.09.2021	1.17
09.09.2021	1.19
08.09.2021	1.24
07.09.2021	1.24
06.09.2021	1.25
03.09.2021	1.25
02.09.2021	1.27
01.09.2021	1.28
Sept. 2021	1.21
31.08.2021	1.38
30.08.2021	1.31
27.08.2021	1.41
26.08.2021	1.43
25.08.2021	1.44
24.08.2021	1.35
23.08.2021	1.15

20.08.2021	0.92
19.08.2021	0.9
18.08.2021	0.86
17.08.2021	0.88
16.08.2021	1.22
13.08.2021	1.25
12.08.2021	1.29
11.08.2021	1.3
10.08.2021	1.31
09.08.2021	1.26
06.08.2021	1.23
05.08.2021	1.23
04.08.2021	1.24
03.08.2021	1.26
02.08.2021	1.27
Augt. 2021	1.22
30.07.2021	1.33
29.07.2021	1.28
28.07.2021	1.31
27.07.2021	1.31
26.07.2021	1.29
23.07.2021	1.03
22.07.2021	0.94
21.07.2021	0.91
20.07.2021	0.85
19.07.2021	1.2
16.07.2021	0.84
15.07.2021	0.85
14.07.2021	0.87
13.07.2021	0.97
12.07.2021	1.21
09.07.2021	1.08
08.07.2021	1.05
07.07.2021	1.07
06.07.2021	1.06
05.07.2021	1.24
02.07.2021	0.99
01.07.2021	1.01
Iul. 2021	1.07
30.06.2021	1.1
29.06.2021	0.98
28.06.2021	0.97
25.06.2021	1.01
24.06.2021	1.04
23.06.2021	0.81
22.06.2021	0.91

18.06.2021	0.89
17.06.2021	0.9
16.06.2021	0.97
15.06.2021	1.2
14.06.2021	0.9
11.06.2021	1.03
10.06.2021	1.12
09.06.2021	1.06
08.06.2021	1.24
07.06.2021	0.93
04.06.2021	0.99
03.06.2021	1.05
02.06.2021	1.07
Iun. 2021	1
31.05.2021	1.16
28.05.2021	1.19
27.05.2021	1.25
26.05.2021	1.21
25.05.2021	1.26
24.05.2021	1.2
21.05.2021	0.88
20.05.2021	0.83
19.05.2021	0.83
18.05.2021	0.84
17.05.2021	1.19
14.05.2021	0.86
13.05.2021	0.83
12.05.2021	0.89
11.05.2021	0.94
10.05.2021	0.97
07.05.2021	1.05
06.05.2021	1.13
05.05.2021	1.18
04.05.2021	1.3
Mai 2021	1.04
29.04.2021	1.47
28.04.2021	1.49
27.04.2021	1.46
26.04.2021	1.46
23.04.2021	0.98
22.04.2021	0.88
21.04.2021	0.99
20.04.2021	0.86
19.04.2021	1.03
16.04.2021	0.91
15.04.2021	1.16

14.04.2021	0.95
13.04.2021	0.88
12.04.2021	0.88
09.04.2021	0.95
08.04.2021	1.01
07.04.2021	1.19
06.04.2021	1.39
05.04.2021	1.5
02.04.2021	1.53
01.04.2021	1.52
Apr. 2021	1.16
31.03.2021	1.6
30.03.2021	1.59
29.03.2021	1.47
26.03.2021	1.48
25.03.2021	1.44
24.03.2021	1.45
23.03.2021	0.84
22.03.2021	0.96
19.03.2021	1.4
18.03.2021	1.64
17.03.2021	1.65
16.03.2021	1.6
15.03.2021	1.58
12.03.2021	1.57
11.03.2021	1.64
10.03.2021	1.65
09.03.2021	1.67
08.03.2021	1.69
05.03.2021	1.68
04.03.2021	1.66
03.03.2021	1.63
02.03.2021	1.64
01.03.2021	1.65
Mar. 2021	1.52
26.02.2021	1.62
25.02.2021	1.55
24.02.2021	1.39
23.02.2021	0.84
22.02.2021	1.04
19.02.2021	1.26
18.02.2021	1.22
17.02.2021	1.23
16.02.2021	1
15.02.2021	1.01
12.02.2021	1.11

11.02.2021	1.08
10.02.2021	1.08
09.02.2021	1
08.02.2021	1.02
05.02.2021	0.97
04.02.2021	1.01
03.02.2021	1.05
02.02.2021	1.01
01.02.2021	1.01
Feb.2021	1.12
29.01.2021	1.05
28.01.2021	1.02
27.01.2021	1
26.01.2021	1.05
25.01.2021	1.03
22.01.2021	0.78
21.01.2021	0.81
20.01.2021	0.86
19.01.2021	0.92
18.01.2021	0.85
15.01.2021	1.04
14.01.2021	1.09
13.01.2021	1.09
12.01.2021	1.19
11.01.2021	1.13
08.01.2021	1.14
07.01.2021	1.29
06.01.2021	1.27
05.01.2021	1.19
04.01.2021	1.39
Ian. 2021	1.05
31.12.2020	1.51
30.12.2020	1.58
29.12.2020	1.67
28.12.2020	1.81
24.12.2020	1.85
23.12.2020	1.34
22.12.2020	1.22
21.12.2020	1.15
18.12.2020	1.13
17.12.2020	1.18
16.12.2020	1.17
15.12.2020	1.19
14.12.2020	1.34
11.12.2020	1.47
10.12.2020	1.59

09.12.2020	1.64
08.12.2020	1.69
07.12.2020	1.76
04.12.2020	1.77
03.12.2020	1.72
02.12.2020	1.71
Dec. 2020	1.49
27.11.2020	1.77
26.11.2020	1.74
25.11.2020	1.75
24.11.2020	1.71
23.11.2020	1.23
20.11.2020	1.16
19.11.2020	1.29
18.11.2020	1.32
17.11.2020	1.2
16.11.2020	1.19
13.11.2020	1.4
12.11.2020	1.6
11.11.2020	1.59
10.11.2020	1.65
09.11.2020	1.7
06.11.2020	1.77
05.11.2020	1.73
04.11.2020	1.74
03.11.2020	1.77
02.11.2020	1.85
Nov. 2020	1.55
30.10.2020	1.93
29.10.2020	1.95
28.10.2020	1.88
27.10.2020	1.9
26.10.2020	1.95
23.10.2020	1.96
22.10.2020	1.74
21.10.2020	1.85
20.10.2020	1.9
19.10.2020	1.93
16.10.2020	1.99
15.10.2020	1.98
14.10.2020	1.99
13.10.2020	1.98
12.10.2020	1.97
09.10.2020	1.98
08.10.2020	1.99
07.10.2020	1.98

06.10.2020	1.99
05.10.2020	1.98
02.10.2020	2
01.10.2020	1.99
Oct.2020	1.94
30.09.2020	2.02
29.09.2020	2.01
28.09.2020	1.99
25.09.2020	1.99
24.09.2020	1.95
23.09.2020	1.39
22.09.2020	1.29
21.09.2020	1.38
18.09.2020	1.49
17.09.2020	1.54
16.09.2020	1.64
15.09.2020	1.66
14.09.2020	1.73
11.09.2020	1.85
10.09.2020	1.89
09.09.2020	1.84
08.09.2020	1.76
07.09.2020	1.71
04.09.2020	1.75
03.09.2020	1.85
02.09.2020	1.87
01.09.2020	1.92
Sept. 2020	1.75
31.08.2020	1.91
28.08.2020	1.94
27.08.2020	1.95
26.08.2020	1.93
25.08.2020	1.94
24.08.2020	1.92
21.08.2020	1.27
20.08.2020	1.19
19.08.2020	1.37
18.08.2020	1.5
17.08.2020	1.66
14.08.2020	1.85
13.08.2020	1.9
12.08.2020	1.89
11.08.2020	1.79
10.08.2020	1.82
07.08.2020	1.88
06.08.2020	1.86

05.08.2020	2.12
04.08.2020	2.14
03.08.2020	2.17
Aug. 2020	1.8
31.07.2020	2.17
30.07.2020	2.15
29.07.2020	2.17
28.07.2020	2.19
27.07.2020	2.14
24.07.2020	2.21
23.07.2020	1.79
22.07.2020	1.94
21.07.2020	2.08
20.07.2020	2.12
17.07.2020	2.17
16.07.2020	2.1
15.07.2020	2.03
14.07.2020	1.99
13.07.2020	1.97
10.07.2020	1.97
09.07.2020	2
08.07.2020	2.01
07.07.2020	1.94
06.07.2020	2.13
03.07.2020	2.11
02.07.2020	2.15
01.07.2020	2.16
Iul. 2020	2.07
30.06.2020	2.19
29.06.2020	2.11
26.06.2020	2.13
25.06.2020	2.13
24.06.2020	2.13
23.06.2020	1.52
22.06.2020	1.7
19.06.2020	2.04
18.06.2020	2
17.06.2020	1.71
16.06.2020	1.64
15.06.2020	1.67
12.06.2020	1.67
11.06.2020	1.76
10.06.2020	1.86
09.06.2020	1.98
05.06.2020	2.03
04.06.2020	2.08

03.06.2020	2.09
02.06.2020	2.08
Iun. 2020	1.92
29.05.2020	2.19
28.05.2020	2.28
27.05.2020	2.34
26.05.2020	2.35
25.05.2020	2.37
22.05.2020	2.06
21.05.2020	1.93
20.05.2020	1.92
19.05.2020	1.92
18.05.2020	1.91
15.05.2020	1.89
14.05.2020	2
13.05.2020	2.09
12.05.2020	2.13
11.05.2020	2.15
08.05.2020	2.18
07.05.2020	2.17
06.05.2020	2.28
05.05.2020	2.37
04.05.2020	2.44
Mai 2020	2.14
30.04.2020	2.47
29.04.2020	2.51
28.04.2020	2.54
27.04.2020	2.56
24.04.2020	2.53
23.04.2020	1.66
22.04.2020	1.75
21.04.2020	2.26
16.04.2020	2.46
15.04.2020	2.5
14.04.2020	2.5
13.04.2020	2.49
10.04.2020	2.51
09.04.2020	2.52
08.04.2020	2.54
07.04.2020	2.5
06.04.2020	2.54
03.04.2020	2.53
02.04.2020	2.53
01.04.2020	2.52
Apr. 2020	2.42
31.03.2020	2.49

30.03.2020	2.48
27.03.2020	2.56
26.03.2020	2.54
25.03.2020	2.5
24.03.2020	2.41
23.03.2020	1.75
20.03.2020	2.12
19.03.2020	2.46
18.03.2020	2.54
17.03.2020	2.59
16.03.2020	2.55
13.03.2020	2.6
12.03.2020	2.41
11.03.2020	2.39
10.03.2020	2.35
09.03.2020	2.49
06.03.2020	2.31
05.03.2020	2.29
04.03.2020	2.36
03.03.2020	2.42
02.03.2020	2.5
Mar. 2020	2.41
28.02.2020	2.49
27.02.2020	2.42
26.02.2020	2.48
25.02.2020	2.53
24.02.2020	2.51
21.02.2020	1.83
20.02.2020	1.72
19.02.2020	1.86
18.02.2020	1.99
17.02.2020	2.47
14.02.2020	2.49
13.02.2020	2.59
12.02.2020	2.61
11.02.2020	2.64
10.02.2020	2.69
07.02.2020	2.76
06.02.2020	2.66
05.02.2020	2.67
04.02.2020	2.58
03.02.2020	2.56
Feb. 2020	2.42
31.01.2020	2.6
30.01.2020	2.58
29.01.2020	2.64

28.01.2020	2.8
27.01.2020	2.8
23.01.2020	2.38
22.01.2020	2.18
21.01.2020	2.1
20.01.2020	2.45
17.01.2020	1.61
16.01.2020	1.84
15.01.2020	2.26
14.01.2020	2.48
13.01.2020	2.51
10.01.2020	2.44
09.01.2020	2.42
08.01.2020	2.47
07.01.2020	2.51
06.01.2020	2.51
03.01.2020	2.43
Ian. 2020	2.4
31.12.2019	2.31
30.12.2019	2.52
27.12.2019	2.58
24.12.2019	2.9
23.12.2019	3.21
20.12.2019	3.1
19.12.2019	2.28
18.12.2019	2.31
17.12.2019	2.54
16.12.2019	2.59
13.12.2019	2.67
12.12.2019	2.63
11.12.2019	2.61
10.12.2019	2.6
09.12.2019	2.66
06.12.2019	2.72
05.12.2019	2.84
04.12.2019	3
03.12.2019	2.97
02.12.2019	2.82
Dec. 2019	2.69
29.11.2019	2.71
28.11.2019	2.5
27.11.2019	2.5
26.11.2019	2.53
25.11.2019	2.58
22.11.2019	1.65
21.11.2019	1.96

20.11.2019	2.37
19.11.2019	2.42
18.11.2019	2.49
15.11.2019	2.47
14.11.2019	2.37
13.11.2019	2.38
12.11.2019	2.28
11.11.2019	2.48
08.11.2019	2.28
07.11.2019	2.27
06.11.2019	2.27
05.11.2019	2.27
04.11.2019	2.49
01.11.2019	2.38
Nov. 2019	2.71
31.10.2019	2.43
30.10.2019	2.53
29.10.2019	2.64
28.10.2019	2.66
25.10.2019	2.96
24.10.2019	2.74
23.10.2019	1.62
22.10.2019	1.8
21.10.2019	2.38
18.10.2019	1.58
17.10.2019	1.64
16.10.2019	2.03
15.10.2019	2.09
14.10.2019	2.48
11.10.2019	2.32
10.10.2019	2.33
09.10.2019	2.32
08.10.2019	2.4
07.10.2019	2.48
04.10.2019	2.24
03.10.2019	2.26
02.10.2019	2.36
01.10.2019	2.44
Oct. 2019	2.29

Appendix 2

Data	R_dob_p olitica monetara	Cursul_s chimb mediu	IPC	IRCC
Oct. 2022	6.25	4.9266	17.18	6.28
Sep. 2022	5.50	4.9080	15.88	6.03
Aug. 2022	5.50	4.8953	15.32	6.22
Jul. 2022	4.75	4.9398	14.96	4.8
Jun. 2022	3.75	4.9448	15.05	4.41
May. 2022	3.75	4.9462	14.49	4.27
Apr. 2022	3.00	4.9437	13.76	3.44
Mar. 2022	2.50	4.9481	10.15	3.59
Feb. 2022	2.50	4.9456	8.53	2.55
Jan. 2022	2.00	4.9448	8.35	2.15
Dec. 2021	1.75	4.9489	8.19	2.12
Nov. 2021	1.75	4.9488	7.80	1.74
Oct. 2021	1.50	4.9481	7.94	1.7
Sep. 2021	1.25	4.9465	6.29	1.21
Aug. 2021	1.25	4.9229	5.25	1.22
Jul. 2021	1.25	4.9250	4.95	1.07
Jun. 2021	1.25	4.9236	3.94	1
May. 2021	1.25	4.9247	3.75	1.04
Apr. 2021	1.25	4.9221	3.24	1.16
Mar. 2021	1.25	4.8878	3.05	1.52
Feb. 2021	1.25	4.8741	3.16	1.12
Jan. 2021	1.25	4.8728	2.99	1.05
Dec. 2020	1.50	4.8707	2.06	1.49
Nov. 2020	1.50	4.8699	2.14	1.55
Oct. 2020	1.50	4.8733	2.24	1.94
Sep. 2020	1.50	4.8586	2.45	1.75
Aug. 2020	1.50	4.8372	2.68	1.8
Jul. 2020	1.75	4.8380	2.8	2.07
Jun. 2020	1.75	4.8393	2.52	1.92
May. 2020	2.00	4.8365	2.26	2.14
Apr. 2020	2.00	4.8342	2.68	2.42
Mar. 2020	2.00	4.8263	3.05	2.41
Feb. 2020	2.50	4.7828	3.05	2.42
Jan. 2020	2.50	4.7785	3.6	2.4
Dec. 2019	2.50	4.7773	4.04	2.69
Nov. 2019	2.50	4.7683	3.77	2.71
Oct. 2019	2.50	4.7538	3.4	2.29