Identification of Automatic Stabilizers Among the Instruments of the Monetary Policy of Romania Regarding the Maastricht Inflation Criterion

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Abstract: The global financial and economic crisis has left deep wounds on the world's economies, whose scars are still being seen today, and the need for economic, financial, political and social stabilization seems increasingly acute. In this context, the ability to smooth the volatility of economic output of automatic stabilizers stands out. If we discuss strictly convergence, the Maastricht criteria can also be included in an automatic stabilization paradigm. In this context, based on previous work, the article aims to develop a way to identify automatic stabilizers for inflation in Romania, starting from the classical instruments of the monetary policy of the National Bank of Romania.

Keywords: convergence; methodology; stabilization; scenarios; NBR

JEL Classification: C1; E58; E63

1. Introduction

Like other countries that are still outside the Eurozone's EU bloc which pledged and wanted to join it, Romania will have to adopt the European currency according to an imposed timetable established between national authorities and EU institutions. Thus, in order to respect the timetable for integration into the euro area, Romania will have to meet the Maastricht criteria of nominal economic convergence. Currently, these criteria are handled in the compliance area by purely discretionary mechanisms, although it is prefigured the intentions of achieving convergence through rather automatic or semi-automatic instruments. Therefore, the article aims to obtain, through a relatively simple logic and econometric model, ways of selecting possible automatic stabilizers for the inflation criterion. The automatic stabilizers will be sought to be strictly selected from the classical

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monetary policy instruments of the National Bank of Romania (NBR).

2. Description of the Problem in the Context of the Literature Review

The specialized literature abounds in dealing with the problem of convergence, but also of automatic stabilization, especially in the fiscal sphere. However, grounded studies, both theoretical and practical, on the correlation of the two problems - achieving nominal economic convergence and automatic stabilization - are practically non-existent. This shortcoming is a real opportunity for theoretical and especially applicative openings, which will allow the best possible solution to achieve the nominal economic convergence through a set of automatic stabilizers. Therefore, the article aims to bring more light in this area. It should be noted that although this article strictly addresses the problem of automatic stabilization of the inflation convergence criterion, in fact the stabilization of nominal convergence criteria is most often contrary to automatic stabilization as defined by the literature – more exactly, it must reduce the effects of GDP shocks in the economy. (Auerbach and Feenberg, 2000) and allow passive compensation of fluctuations in the economy (Stiglitz and Walsh, 2005). This aspect, of the harmonization of the two concepts - the automatic stabilization of the convergence and the automatic stabilization of the economy as a whole - will surely be addressed in other future researches.

3. Methodology and Data Source

The article aims, through a case study on Romania, to sketch possible ways of automatically stabilizing inflation calculated according to the Maastricht criterion using the correlation, linear regression and simulation tools (based on scenarios). In this approach, automatic stabilizers are sought to be among the classical instruments of the NBR's monetary policy, without any other variables or instruments outside the monetary policy. To identify the quality of automatic stabilizer we start from its properties, in particular following the counter-cyclical character.

The analysis period is 2007-2018, using monthly data, and the data sources are Eurostat, the site of the National Bank of Romania and the monthly bulletins of this institution.

The abandonment of unit root tests or cointegration tests is also due to the fact that the elements used for automatic stabilization are precisely monetary instruments, without needing further econometric arguments on how to select them.

4. Results Obtained

In order to be able to carry out the analysis on the case study of Romania, we will start by coupling the stabilization tools theoretically identified with those that actually exist in the NBR instrumentation (as in Table 1),

Thus, if we consider the situation when the inflation criterion in Romania is not met, we observe on the basis of the correlation matrix (see Table 2) that only the exchange rate and money market operations of the NBR - Repo and Auctions for certificates of deposit (the amount awarded , mil lei) - shows negative correlations with inflation. This may qualify them for automatic stabilization.

Table 1. Identification and Coupling of Theoretical with Practical Elements Regarding Automatic Inflation Rate Stabilizers

Possible automatic stabilizers	Liquidity injection	Absorption of liquidity	NBR data availability
Exchange rate	X	X	X
Repo operations	X		X
Attraction of deposits		X	X
Issuance of certificates of deposit		X	X
Reverse repo operations		X	X
Granting of collateralized loans with assets eligible for collateral	X	-	-
Sales / purchases of assets eligible for trading	X	X	-
Currency swap	X	X	-
Interest rate on permanent credit facility	X	-	X
Interest rate at the permanent deposit facility		X	X
MRR rate in lei	X	X	X
MRR rate in foreign currency	X	X	X

Source: author's conception, previous work mentioned and information from the NBR

Table 2. The Correlation Matrix between Inflation Rate and the Proposed Monetary Instruments for Automatic Stabilization, for the Period 2007-2018, when the Inflation Criterion is Not Met

	i	ErRON/EUR	R	AD	ADC	RR	Irpcf	Irpdf	LMRRR	FMRRR	PCF	PDF
i	1											
ErRON/EUR	-0.46	1										
R	-0.09	0.29	1									
AD	0.29	-0.37	-0.22	1								
ADC	-0.03	-0.43	-0.10	0.20	1							
RR	0.09	0.02	0.01	-0.06	-0.04	1						
Irpcf	0.63	-0.77	-0.08	0.11	0.24	0.20	1					
Irpdf	0.64	-0.31	-0.05	0.00	-0.12	0.32	0.68	1				
LMRRR	0.57	-0.84	-0.13	0.22	0.28	0.09	0.94	0.52	1			
FMRRR	0.58	-0.86	-0.18	0.26	0.29	0.20	0.93	0.62	0.94	1		
PCF	0.21	-0.11	0.02	-0.11	-0.05	0.17	0.35	0.54	0.23	0.33	1	
PDF	0.02	0.00	-0.16	-0.15	0.16	-0.07	0.09	-0.06	0.10	-0.02	-0.15	1

Source: author's calculation, NBR data. Notations: i – inflation rate; ErRON / EUR - nominal exchange rate RON / EUR, R - money market transactions of repo type (mil lei), AD - money market operations such as deposit auctions, awarded amount, mil lei, ADC - market operations monetary of the type of auctions certified for deposit (the amount awarded, million lei), RR - money market operations of the reverse repo type (million lei), Irfpc - the interest rate at the permanent credit facility (%), Irpdf - the interest rate at the permanent deposit facility (%), LMRRR - the rate of minimum mandatory reserves in lei (%), FMRRR - the rate of minimum mandatory reserves in foreign currency (%), PCF - permanent credit facility (million lei), PDF - permanent deposit facility (million lei).

At the same time, it is worth noting that the interest rate on the permanent credit facility, the interest rate on the permanent deposit facility, the interest rate on the mandatory minimum reserves in lei and in foreign currency have strong, albeit positive, correlations with inflation rate. Although among the instruments initially selected were the interest rate on the permanent credit facility and the interest rate

on the permanent deposit facility, we also selected in this table the volume information (million lei) regarding the permanent credit facility (PCF) and the deposit facility (PDF). Their correlation with inflation proved to be of low intensity and subsequently I gave up taking them into consideration.

The RON / EUR exchange rate and the Repo operations, as well as the PDF, present with almost all other monetary instruments negative correlations, but generally insignificant. Only the exchange rate in relation with Irpcf, LMRRR and FMRRR has strong and very strong negative correlations (in the case of the required minimum reserve rate in foreign currency and lei).

In the case of meeting the Maastricht criterion on inflation, during that period of fulfilment of the criterion a series of monetary instruments does not present uses such as deposit auctions (AD), auctions of certificates of deposit (ADC) and reverse repo operations (RR), thus excluding them from the model. Therefore, the correlation matrix of the selected elements was reduced (see Table 3), the exchange rate being the only element that kept its negative correlation with the inflation rate, although the intensity of the correlation became almost insignificant.

Table 3. The Correlation Matrix between Inflation Rate and the Proposed Monetary Instruments for Automatic Stabilization, for the Period 2007-2018, when the Inflation Criterion is Met

	i	*ErRON/ EUR*	*R*	*Irpcf*	*Irpdf*	*LMRRR*	*FMRRR*	*PCF*	*PDF*
i	1								
ErRON/EUR	-0.09	1							
R	0.61	-0.50	1						
Irpcf	0.69	-0.61	0.92	1					
Irpdf	0.69	-0.62	0.90	1.00	1				
LMRRR	0.69	-0.60	0.93	1.00	0.99	1			
FMRRR	0.32	-0.86	0.81	0.85	0.85	0.85	1		
PCF	0.25	-0.32	0.41	0.41	0.39	0.42	0.36	1	
PDF	0.42	-0.46	0.48	0.70	0.72	0.69	0.58	0.24	1

Source: author's calculation, NBR data. The above notations are preserved.

It is worth noting that, although positive, the relatively strong correlations with inflation have also kept the repo operations, the interest rate on the permanent credit facility, the interest rate on the permanent deposit facility, the rate of minimum mandatory reserves in lei and even the permanent deposit facility. However, Irpcf and Irpdf show almost no variability in the criterion fulfilment period (2012.Feb. - 2012.Jun. and 2015.Jun. - 2017.Sept.) and it is hard to believe that they had a

contribution in stabilizing inflation, which proposes them to be excluded from the model.

Based on the correlation matrix above we develop the following regression equation: i = f (ErRON / EUR, R, LMRRR, FMRRR, PCF, PDF), the result of which is presented below (see Table 4).

Table 4. The Result of the Regression Equation Regarding the Link between Inflation Rate and the proposed monetary instruments for Automatic Stabilization, for the Period 2007-2018, if the Inflation Criterion is Met

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.87
R Square	0.76
Adjusted R Square	0.70
Standard Error	0.80
Observations	33

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	53.25	8.88	13.73	0.00
Residual	26	16.80	0.65		
Total	32	70.06			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0 %*	*Upper 95.0 %*
Intercept	-10.39	28.69	-0.36	0.72	-69.36	48.58	-69.36	48.58
ErRON/EUR	1.09	6.01	0.18	0.86	-11.27	13.45	-11.27	13.45
R	0.00	0.00	-1.03	0.31	0.00	0.00	0.00	0.00
LMRRR	1.17	0.23	5.02	0.00	0.69	1.65	0.69	1.65
FMRRR	-0.36	0.15	-2.47	0.02	-0.66	-0.06	-0.66	-0.06
PCF	0.00	0.00	-0.50	0.62	0.00	0.00	0.00	0.00
PDF	0.00	0.00	-1.45	0.16	0.00	0.00	0.00	0.00

Source: author's calculation, NBR data. The above notations are preserved.

We note that the value of the coefficient of determination (R2) of 0.7601659 is extremely satisfactory, considering that the level of the sample is limited (33 observations). The coefficients are not significantly different from zero for R, PCF, PDF, and only FMRRR is negative, proposing it for the role of automatic stabilizer. The associated probability or p-value is well below 0.05 for LMRRR and FMRRR, and the null hypothesis H0 can be rejected, except for the rest of the selected instruments, which we exclude from the model. Thus, we can conclude that the main influence on inflation mainly comes only from LMRRR and FMRRR and that only FMRRR has negative feedback in relation to the inflation.

If we simplify the equation based on the result of the previous regression equation in the form i = f (LMRRR, FMRRR), we obtain the equation: i = 0.7LMRRR-0.5FMRRR (see Table 5).

Table 5. The Result of the Regression Equation Regarding the Link between Inflation Rate and the Minimum Reserve Rate Required in Lei and Foreign Currency, Respectively, for the Period 2007-2018, if the Inflation Criterion is Met

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.63
R Square	0.40
Adjusted R Square	0.35
Standard Error	1.17
Observations	33

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	28.27	14.13	10.37	0.00
Residual	31	42.27	1.36		
Total	33	70.54			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0 %*	*Upper 95.0 %*
LMRRR	0.66	0.15	4.55	0.00	0.37	0.96	0.37	0.96

FMRRR	-0.47	0.10	-4.49	0.00	-0.68	-0.26	-0.68	-0.26

Source: author's calculation, NBR data. The above notations are preserved.

According to the above table, the value of the coefficient of determination (R2) of 0.4008 is relatively satisfactory, considering that the level of the sample is limited (33 observations). The coefficients are different from zero but not in a significant way, and only FMRRR is negative, proposing it for the role of automatic stabilizer. The associated probability, or p-value, is well below 0.05 for LMRRR and FMRRR, and the null hypothesis H0 can be rejected, so only these instruments can be kept in the model. Thus, we can conclude that the main influence on inflation mainly comes only from LMRRR and FMRRR and that only FMRRR has negative feedback in relation to inflation. So the simplified equation becomes i = f(LMRRR, FMRRR), with a series of scenarios remaining, with simulations to see which of the variants of formulas can allow inflation to be positioned within the Maastricht criterion.

Although the scenarios / simulations could be directed to the future, it was preferred to perform simulations in the past, of the type "what would have been if", in order to "remedy" inflation rate, on the paradigm of the past the situations of non-fulfilment of the criteria. Thus, "remedying" the past on different hypothetical scenarios constituted the choice made for simulations.

Thus, starting from the hypothesis that inflation rate can be brought into the convergence path based on the previous equation, it has been constructed a series of scenarios by introducing different coefficients values in simulations. In the figure 1 it is presented graphically the result of these simulations.

In scenario 1, the proposed inflation equation is i = 0.7 * LMRRR-0.5 * FMRRR.

In scenario 2, the proposed inflation equation is i = 0.7 * LMRRR-0.6 * FMRRR.

In scenario 3, the proposed inflation equation is i = 0.6 * LMRRR-0.5 * FMRRR.

In scenario 4, the proposed inflation equation is i = 0.6 * LMRRR-0.4 * FMRRR.

In scenario 5, the proposed inflation equation is i = 0.3 * LMRRR-0.2 * FMRRR.

In scenario 6, the proposed inflation equation is i = 0.2 * LMRRR-0.2 * FMRRR.

In scenario 7, the proposed inflation equation is i = 0.1 * LMRRR-0.2 * FMRRR.

Scenarios 2, 3, 6 and 7 meet the Maastricht convergence criterion, scenarios 1, 4 and 5 violate the Maastricht convergence criterion on inflation of 11 times, 17 times and 13 times. The most appropriate seem scenarios 6 and 7.

The extremely low coefficients, for the rates of the mandatory minimum reserves both in lei and in foreign currency, reflect a relatively poor connection in the handling of inflation through these instruments. Also, these modest coefficients

indicate the possibility of adjusting the inflation equation with other factors that are beyond the control of the NBR.

In Romania, the analysis of the automatic stabilization regarding inflation reveals the importance of the rates rather than the indicators that reflect the monetary volume (million lei, when i is f (LMRR, FMRR)) (see Table 6) pumped or withdrawn through the instruments. As we know, there are several methodologies for calculating the minimum reserve required, not disclosed by the NBR, but for simplification we used for FMRR (or the mandatory minimum reserve in foreign currency in millions of lei) the NBR data on external liabilities - deposits, without loans from repo operations. Moreover, for automatic stabilization, we should keep in mind especially the minimum reserves required in foreign currency (calculated, of course, in lei equivalent).

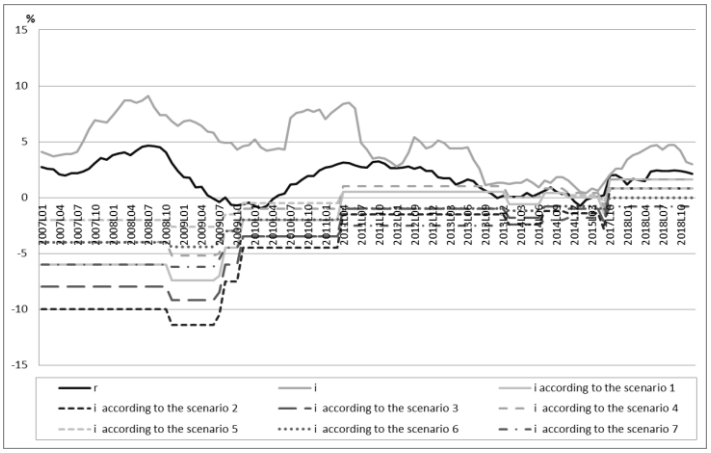

Figure 1. The evolution of Inflation Rate through the Prism of Several Scenarios Designed to fit Inflation in the Maastricht Convergence Criterion, for the Period 2007-2018

Source: author's calculation and conception, BNR data. The above notations are preserved.

In the case of minimum mandatory reserves, both in lei and in foreign currency, the various rates (in instalments) could be applied to the different volumes (levels) of liabilities to which the mandatory minimum reserves are applied in order to ensure some progressivity and to build the link with a rather automatic mechanism for managing inflation. Although the negative correlation with inflation is kept by the rate of minimum mandatory reserves in foreign currency and therefore only this instrument can be considered as an automatic stabilizer of inflation, the initial equation outlines the need for a tandem element, with pro-cyclical effect, in this case the rate of minimum reserves in lei.

At the same time, if we take the exclusive case of fulfilling the criterion of inflation, in the situation of progressivity on two variants, the first in which the minimum reserve rate at the existing currency in the NBR statistics is the maximum rate (belonging to the upper tranche), and the second option in which the minimum reserve rate obligatory at the existing currency in the NBR statistics is the minimum rate (belonging to the lower tranche), we observe for the first variant the inverse correlation. As we can see this correlation is quite mediocre, however it allows us to propose the first variant of the mandatory minimum reserve rate in foreign currency for automatic stabilization (see Table 7).

Table 6. The Result of the Regression Equation Regarding the Link between Inflation Rate and the Minimum Reserve Required in Lei and Currency, Respectively, for the Period 2007-2018

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.90
R Square	0.81
Adjusted R Square	0.80
Standard Error	2.00
Observations	144

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	2425.05	1212.53	303.46	0.00
Residual	142	567.38	4.00		
Total	144	2992.43			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0 %*	*Upper 95.0 %*
LMRR	0.00	0.00	1.00	0.32	0.00	0.00	0.00	0.00
FMRR	0.00	0.00	10.38	0.00	0.00	0.00	0.00	0.00

Source: author calculation, NBR data. The above notations are preserved. LMRR - mandatory minimum reserves in lei, FMRR- minimum mandatory reserves in foreign currency.

In the event of non-fulfilment of the inflation rate criterion (see Table 8), for the mandatory minimum reserve rate in foreign currency according to the first variant, we observe an adequacy of the model and an overlap over the mathematical formalization of scenarios 5, 6, 7. Thus, in table 8 the regression equation is formulated as i = f (FMRRR(%) (1)). As noted above, scenarios 6 and 7 meet the Maastricht convergence criterion for inflation.

Table 7. The Correlation Matrix between Inflation Rate and the Elements Chosen for Progressivity for the Two Variants for the Mandatory Minimum Reserve Rate in Foreign Currency, for the Period 2007-2018, if the Inflation Criterion is Met

	i	Base for MRR in currency (equivalent thousands lei) Total	FMRRR (%) (1)	FMRRR(%) (2)	FMRR (equivalent thousands lei) (1)	FMRR (equivalent thousands lei) (2)
i	1					
Base for MRR in currency (equivalent to thousands lei) Total	0.16	1				
FMRRR (%) (1)	-0.01	0.89	1			
FMRRR(%) (2)	0.35	0.64	0.76	1		
FMRR (equivalent thousands lei) (1)	0.20	0.96	0.89	0.73	1	
FMRR (equivalent thousands lei) (2)	0.28	0.93	0.87	0.79	0.99	1

Source: author's calculation, NBR data. The above notations are preserved. FMRR- minimum reserves in foreign currency. FMRRR (1) - the rate of minimum mandatory reserves in the first variant, where the progressivity is conceived on three tranches, the maximum tranche is already existing in the NBR statistics, FMRRR (2) - the rate of the minimum mandatory reserves in the second variant, where the progressivity is it is designed on three tranches, the minimum tranche is the one already existing in the NBR statistics.

Another possible variant of progressivity of the minimum reserves could be realized based on the maturity of the deposits taken into account for the calculation of the minimum reserves. For example, deposits can be systematized on maturities of up to 3 months, 3-6 months, 6-12 months, 1-3 years, 3-5 years, over 5 years. The rate of minimum reserves, regardless of whether we refer to lei or foreign currency, theoretically should be higher for lower maturities, then gradually reduce, being extremely low for periods over 5 years. Imposing the mandatory minimum reserve rate on maturities would also allow a structural improvement in the banking system in Romania, so that the liabilities of commercial banks could be redesigned to support longer maturities. In this context, commercial banks could offer deposit

services for population and companies with extended maturities and numerous benefits included (including the possibility of withdrawing interest only at time intervals, the initial deposit being kept unchanged).

Table 8. The result of the regression equation regarding the connection between inflation rate and the rate of the minimum reserve required in lei and foreign currency, respectively, for the period 2007-2018, in the situation of non-fulfilment of the criterion

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.85
R Square	0.72
Adjusted R Square	0.72
Standard Error	2.71
Observations	333

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	6329.80	6329.80	862.73	0.00
Residual	332	2435.87	7.34		
Total	333	8765.67			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0 %*	*Upper 95.0 %*
FMRRR (%) (1)	-0.22	0.01	29.37	0.00	0.21	0.24	0.21	0.24

Source: author's calculation, NBR data. The above notations are preserved. FMRR - minimum reserves in foreign currency. FMRRR(1) - the rate of the minimum compulsory reserves in the first variant, where the progressivity is conceived on three tranches, the maximum tranche already existing in the NBR statistics.

If we analyse the problem of automatic stabilization from the perspective of the differential, although as I mentioned before, the reference for inflation is formulated outside the national context, the successive reasoning can lead us to an equation of the type:

$\Delta ir = f(Irpcf, ErRON / EUR)$ or more precisely,

$\Delta ir = 0.1 * Irpcf - 0.4 * ErRON / EUR$ (see Table 9).

As we know, the exchange rate is recognized in theory as a good automatic stabilizer, and in the case of Romania, when we propose to adjust the inflation-reference differential we can see that this hypothesis is confirmed. Based on the above

equation, we develop three scenarios in which the equation supports small adjustments. Inflation is obtained by adding the reference to the differential.

Table 9 The Result of the Regression Equation Regarding the Link between the Inflation Rate Differential and the Monetary Instruments Selected for Automatic Stabilization, for the Period 2007-2018, if the Inflation Criterion is Met

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.93
R Square	0.87
Adjusted R Square	0.83
Standard Error	0.47
Observations	33

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	45.87	22.94	104.77	0.00
Residual	31	6.79	0.22		
Total	33	52.66			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0 %*	*Upper 95.0 %*
ErRON/EUR	-0.36	0.04	-9.31	0.00	-0.44	-0.28	-0.44	-0.28
Irpcf	0.11	0.04	3.02	0.00	0.04	0.19	0.04	0.19

Source: author's calculation and conception, NBR data. The above notations are preserved.

Thus, the three scenarios can be presented as follows:

Scenario 1 presents an equation of the type $\Delta ir = 0.1 * Irpcf - 0.4 * ErRON / EUR$.

Scenario 2 presents an equation of the type $\Delta ir = 0.1 * Irpcf - 0.3 * ErRON / EUR$.

Scenario 3 presents an equation of the type $\Delta ir = 0.1 * Irpcf - 0.5 * ErRON / EUR$.

Scenario 1 allows for the fulfilment of the convergence criterion to a large extent, but there are still 8 situations of non-compliance during the analysis period. Scenario 2 presents 31 situations of non-fulfilment of the criterion and scenario 3 allows the fulfilment of the convergence criterion for the entire period of analysis.

Below, we show in figure 2, the evolution of inflation rate through the prism of some scenarios that first aim to adjust the differential (gap) between inflation rate and the reference for inflation rate and then by adding to this gap the reference we obtained the inflation shown in this figure.

From this figure and the previous one it is noted that in the case of direct monitoring of inflation within the Maastricht criterion, the graphical rendering indicates a certain degree of "non-chiselling" compared to the graphical rendering regarding the differential between inflation and reference. However, it cannot be considered that one modality is right and the other wrong, especially since each of them reproduces a certain degree of systematization of reality according to the monetary policy objective pursued. Perhaps a more appropriate mixed solution could come from adjusting the inflation equation with certain components that better capture this national inflation gap compared to the inflation reference set by the Maastricht criterion.

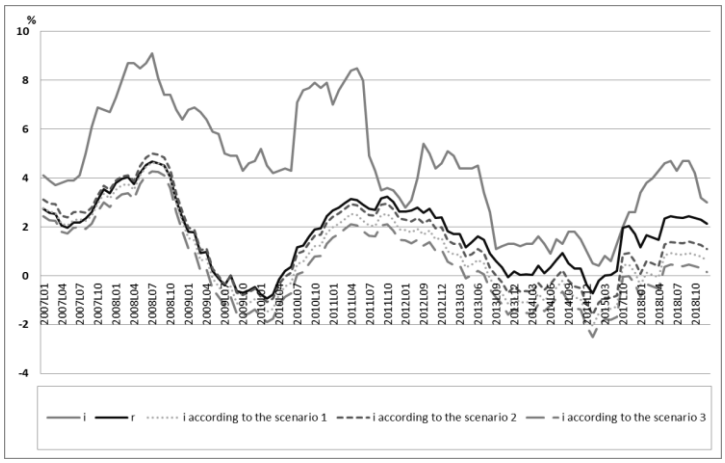

Figure 2 Inflation Rate Evolutions through the Prism of Several Scenarios Designed to fit the Maastricht Convergence Criterion Based on the Differential Adjustment, for the Period 2007-2018

Source: author's calculation and conception, NBR data. The above notations are preserved.

Conclusions

The analysis carried out reflects the possibility of a more appropriate management of the monetary policy through the perspective of the monetary instruments used, both in the situation of direct inflation control and subsequent referral to the reference, as well as first adjusting the differential. Thus, the minimum reserve

requirements rate (especially in foreign currency), as well as the exchange rate, are the main tools for automatic inflation rate control.

Even if the above analysis reveals a number of elements that can automatically stabilize inflation rate within the convergence criterion, the idea of automatic stabilization of inflation rate through the whole monetary policy toolkit should not be abandoned.

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