

Ghandri, M., Soltani, H., & Maktouf, S. (2021). Inflation targeting as a future framework for Tunisian monetary policy: Between perception and reality in an inflationary context. *Journal of International Studies*, 14(4), 174-186.
doi:10.14254/2071-8330.2021/14-4/12

Journal
of International
Studies

Scientific
Papers

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Inflation targeting as a future framework for Tunisian monetary policy: Between perception and reality in an inflationary context

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Abstract. This paper aims at examining the relationship between macroeconomic variables, the consumer price index, economic growth measured as Gross domestic product (GDP), the nominal effective exchange rate NEER, the money market rate TMM and the money supply M2 in the case of Tunisian economy. After a brief overview of the theoretical discussions on the link between the consumer price index and the macroeconomic variable as an essential condition for an inflation targeting policy, we first present some observations for Tunisia. The limit testing approach of cointegration and error correction models, developed in an autoregressive distributed delay (ARDL) framework combined with the CUSUM and CUSUMQ tests, is presented to the annual data for the period 1990 to 2018 in order to examine whether there is a long-term equilibrium relationship between the consumer price index and the key macroeconomic variables. The result of the limit test indicates that there is a stable long-term relationship between the consumer price index (CPI), economic growth, money supply, and money market rate. The estimated results show that the variables in the model are positively linked in the long and short term. This empirical

Received:
January, 2021
1st Revision:
October, 2021
Accepted:
December, 2021

DOI:
10.14254/2071-
8330.2021/14-4/12

evaluation shows the existence of predictable which is one of the main conditions for the adoption of an inflation targeting policy.

Keywords: inflation targeting, economic Growth, ARDL, Tunisia.

JEL Classification: F21, G30, C22, C23

1. INTRODUCTION

From the early 1990s till date, inflation targeting has become a strong and effective monetary policy regime. This strategy is spreading rapidly, thanks to its remarkable success in the economies that adopted it, encouraging other countries, especially those with emerging economies, to adopt it, for example, Tunisia, Morocco and Egypt. However, this strategy requires heavy conditions that may not all be met, especially in the case of an emerging economy. For example, since 2009, Tunisia has been moving to the inflation targeting policy as a new monetary policy system of its central bank. In fact, the targeting regime allows various internal and foreign players to establish correct forecasts and formulate good predictions about the economic environment in which they will invest. However, the requirements of this policy remain very limited for the country, where the Tunisian capital markets are more or less performing.

Economic activity in Tunisia has evolved in the recent years under the double effect of an unfavorable international economic situation and a national environment marked by political and security hazards. Consequently, the weakness of production and export activities was compounded by the worsening of macroeconomic imbalances, notably those linked to the increase in prices and the inflation rate. This unfavorable situation is explained by the consumer price index which took up an upward trend in February 2016, then accelerated in 2017-2018, peaking in November at 6.3% year-on-year, before taking another 0.4% in December to land in the last month of 2018 at 6.8%.

On an annual average, for the whole year of 2018, the inflation rate was at 5.3%, thus registering a clear rebound after a downward trend during the last four years: 6.1% in 2014, 5.7% in 2015, 4.9% in 2016 and 3.7% in 2016. By sectoral grouping of products, the annual inflation was 5.6% for food products and 5.2% for non-food products, including 8% for clothing, 5.9% for construction and maintenance materials, and 5.5% for rent and housing. The combination of these four inflationary factors (a more significant and lasting rise in international oil prices, the effects of the past depreciation of the dinar against the main currencies, the expansion of money supply and the continuous rise in taxes) combined with the risk of a second activation of the price adjustment mechanism at the pump and the risk of persistent unrest in the distribution channels in 2018 and excessive margin behavior together argued in favor of an inflation rate acceleration in 2018, around 7% already starting from January.

For the whole year of 2018, inflation was on the rise due to the gradual adjustment of prices as the effects of the abovementioned factors were transmitted, despite demand consumption growing moderately.

Monetary policy authorities prove that implementing an inflation targeting regime can help Tunisia reduce its inflation rate, increase the transparency of its monetary policy, strengthen the credibility of its formal commitments, and also increase the independence of its central bank. However, the economic and financial situation in Tunisia during the years before the revolution was characterized by stability in terms of growth, as well as price stability, with a moderate inflation rate. But the post-revolution period was characterized by a financial and monetary disturbance, explained by an inflationary situation and a decline in economic growth. Today, Tunisia seeks to guarantee itself a certain price stability, strengthen macroeconomic stability to improve the credibility of its central bank and thereby stimulate its fiscal discipline with a view to improving economic growth. However, according to (Svensson, 2000), the most

important conditions for implementing a robust inflation targeting system belong to the existence of a stable and predictable relationship between the instruments of a monetary policy.

In this paper, we analyze short- and long-term equilibrium relationships which have studied the static links between the instruments of monetary policy, inflation, exchange rate and gross domestic product. We are going to check whether the monetary policy transmission links meet the inflation target and therefore verify the stability and solidity of the monetary policy transmission links.

We base our empirical study on the evaluation of this equilibrium relation, as regards the efficiency of different monetary policy transmission channels within Tunisian economy, through a study of short- and long-term links between the key macroeconomic variables which constitute the monetary policy instruments, most applied by the central bank of Tunisia.

The other parts of the paper are written/ organized as follows: Section 2 reviews the literature regarding the research topic. Section 3 tackles the methodology and procedures followed in this paper. The data and results are dealt with in section 4. Finally, Section 5 includes the conclusion and implications.

2. LITERATURE REVIEW

Due to the increasing trend towards the adoption of the inflation targeting regime, the number of studies evaluating the effectiveness of this regime is only increasing in parallel, not forgetting that the practice of this monetary regime precedes their theory. Most of the work on inflation targeting has focused on the evolution of macroeconomic variables over time; inflation, unemployment, output and interest rate to see if the new regime affects the dynamic interaction of these variables, and if there is an improvement in these variables after the adoption of this regime.

Other economists are directing their research work towards an assessment of the main conditions for the adoption of an inflation targeting policy, more specifically, to respond to this problem. Indeed, most empirical works relied on the VAR autoregressive vector method for such a comparative analysis. The work of Mishkin and Posen (1997) focused on the estimation of three variables; inflation, growth and key interest rate of three countries' central banks, namely New Zealand, Canada and the United Kingdom over two periods; a period of pre-inflation targeting and a period of post-inflation targeting. This analysis shows that inflation targeting has a favorable effect on macroeconomic variables. Similarly, Amato J D and Gerlach S (2002) took the same sample of countries and arrived at the same results for an analysis of interest rates and consumer expectations.

Batini and Laxton. (2006) looked at an econometric study based on Ball & Sheridan (2003) on a sample of 13 emerging countries that moved to inflation targeting, compared to 22 other emerging economies whose monetary regimes have not undergone real transformations. The current study aims at justifying the hypothesis that the introduction of an inflation targeting policy at the center of monetary policy leads to a fall in inflation and a decrease in its variance which is significantly compared to other monetary regimes. Based on these analyses, it can be deduced that there is a significant relationship between inflation targeting, expected inflation volatility, nominal exchange rate and reserves.

Similarly, Batini and D. Laxton. (2006) conducted a study to demonstrate the importance of certain conditions for the introduction of inflation targeting. They took a sample of 21 emerging countries pursuing this regime and 10 other economies with different monetary policies, such as monetary aggregate targeting or exchange rate targeting. The survey looks at the way in which these policies are formulated, their implementation and the changes in the conditions necessary for using the inflation targeting system and the impact of implementing it.

Ball and Sheridan. (2003) conducted a study in which they tested the effects of inflation targeting on macroeconomic performance of the 20 OECD countries, taking into account that seven of these countries

started to deal with inflation targeting in the 1990s. This analysis starts with the calculation of the average inflation level for each period before and after the use of inflation targeting. The researchers achieved positive inflation results.

There are lots of such models in the literature that were developed by A. Michel (2002) to judge the monetary policy rules. The size, degree of openness and way of application of these models are varied. Some of these models are developed in closed economic environments to identify the effectiveness of optimal monetary policy rules that are compatible with an inflation targeting regime, such as the work of Clarida & al (2001). Among other things, several of these studies widened the analysis of monetary policy in closed economic circles to open the economy parameters.

There are clear distinctions between these open economy models and their closed counterparts. According to Hartmann, M. Roedel, J. (2013), they introduced the real exchange rate that has a great impact on both aggregate demand and inflation. This leads to make monetary management more complex since it is very important to take the effect of exchange rates on real activity and inflation into account when monetary policy is formulated.

Several studies are noteworthy, such as those by Ball and Sheridan (2003), Walsh (2009), Mishkin (2002), and Clarida & al (2001), who conducted a study on the performance and effectiveness of the inflation targeting regime in developing countries. But the most relevant studies are those that deal with inflation targeting as a monetary policy regime for emerging countries.

Another study by Joshua Aizenman & al (2008) examined the case of inflation targeting in emerging economies, A small open economy model is used in countries where imported goods enter not only as consumer but as intermediate goods.

This hypothesis appears more valuable for the developing economy because capital and intermediate goods form a larger proportion of total imports from developing countries.

3. METHODOLOGY

In order to evaluate the short and long-term relationship between the consumer price index and its determinants, we apply the Autoregressive Phased Delay Model developed by Peter & Shin (2001) Pesaran & al. (2001). The reason for using this model is that it can take into consideration both the short- and long-term relationships of the variables examined. The advantage of this model is that it also makes it possible to estimate variables of different levels of integration (I (1) & I (0))

The anticipated results of this study can help the Tunisian monetary authorities to direct their monetary policy towards the target objective. Indeed, the ARDL model will inform about short-term oscillations that are governed by the long-term equilibrium relationship, this allows to make forecasts and therefore, helps the Tunisian government to steer its monetary policies towards a sustainable stability of inflation and the exchange rate regime and their effect on economic growth especially after the serious internal and external crises that have affected the country especially since 2010.

3.1. The ARDL model

This ARDL model is known as the self-regulatory staged delay model. It was founded by Phillips & Hansen. (1991) and Pesaran Smith and Shin. (2001) and takes into consideration both the long-term relationships and the short-term dynamics of the variables examined. A very interesting advantage of the ARDL representation is that it is possible to mix variables at levels I (0) & I (1) and to test directly whether there is a long-term cointegration relationship using the "Bounds testing" method.

The ARDL model, which is a kind of dynamic equation, now attracts researchers, especially in its error correction (EC) version. Its popularity in applied econometrics has increased since the appearance of the

representation theorem of Engle and Granger. (1987) (a stationary linear combination of nonstationary variables). Sargan. (1964) used the (EC) model to estimate structural equations with self-correlated residuals. Using the procedure of Joshua Aizenman et al (2008), they found a long-term balance between foreign direct investment flows for Western European, North American and other developed countries.

They also found another cointegration relationship between the global flows of developed countries on the one hand and the flows of the rest of the world on the other. The ARDL model has several advantages. First of all, in finding a co-integration relationship, the ARDL model approach is generally simpler than that of Johansen, Pesaran, Shin and Smith. (2001) which showed that the ARDL model presents itself as an alternative to the Engel and Granger cointegration test. Name of author here? (1987) and Johansen. (1991). Hassler and Wolters. (2005) published a very important study that deals with the analysis of cointegration in an ARDL structure by showing that the estimation of a cointegration vector, from an ARDL specification is equivalent to the model (CEM). Other studies by Oskooee and Chi Wing Ng. (2002) examined Hong Kong's demand for long-term currency on quarterly data, using an ARDL cointegration procedure. They adopted a function of the monetary demand of an open economy, from a scale variable and a variable representing the domestic interest rate.

Their model explicitly incorporates external factors, such as the exchange rate and the interest rate. Another more recent work was published by Shahbaz et al. (2010) which suggested the use of the ARDL approach to establish a strong relationship between stock market development and Pakistan's economic growth.

Our empirical work is based on the ARDL (Autoregressive Distributed lag) model. It is strongly inspired by the work of Katrakilidis and Emmanouil Trachanas (2012), Mansor H Ibrahim (2015).

The ARDL model can be written as an equation as follows:

$$\begin{aligned} \Delta CPI = c + \sum_{i=1}^n \alpha_1 \Delta CPI_{t-i} + \sum_{i=1}^n \alpha_2 \Delta TMM_{t-i} \\ + \sum_{i=1}^n \alpha_3 GDP_{t-i} + \sum_{i=1}^n \alpha_4 M2_{t-i} + \sum_{i=1}^n \alpha_5 NEER_{t-1} + \beta_1 CPI_{t-1} + \beta_2 TMM_{t-1} \\ + \beta_3 GDP_{t-1} + \beta_4 M2_{t-1} + \beta_5 NEER_{t-1} + \xi_t \end{aligned}$$

In this equation, Δ means the operator of first difference; C represents the constant and ξ_t represents the error term which is a white noise. α_1 expressions that range from α_5 represent the short-term dynamics of the money demand function and the one associated with the parameters β_1 to β_5 which represent the long-term dynamics of the model.

The first step in the ARDL approach is to examine the existence of a unitary root, through the stationary test.

The empirical analysis in the case of Tunisia concerns the verification of the existence of links between monetary policy instruments, through the study of the short- and long-term relationships between the main macroeconomic indicators and the influence of a variation of one on the other.

First, we analyze the choice of our variables. In a second step, we study the properties of the stationary systems used. Then we analyze the cointegration and causality tests.

3.2. Data and choice of variables

In this study we examine these variables: The (CPI), The (NEER), income, the (TMM) and money supply M2. These are collected from the database data from the World Bank and the Central Bank of Tunisia. The data are annual and cover the period from 1990 to 2018. Usually, the exchange rate indicator

used is the index of the NEER. (GDP) is used as an indirect indicator of income and M2 for the money supply. All variables are shown in natural logarithms.

4. EMPIRICAL RESULTS AND DISCUSSION

Before testing the cointegration, we carried out an order of integration test for each variable using the Augmented Dickey-Fuller (ADF), Phillip Perron (P-P) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) methods (see Table 1). Although the ARDL framework does not need pre-testing variables to be done, the unit root test could convince us whether the ARDL model should be applied or not. In Table 1, it is shown that there is a mixture of I(1) & I(0) of underlying regressors and therefore the ARDL testing could be proceeded.

Table 1

Unit Root Test

Variable	ADF test statistic		P-P test statistic		KPSS test statistic	
	Level	First Difference	Level	First Difference	Level	First Difference
CPI	-1.68	-5.05***	-1.50	-5.07***	1.205	0.192***
GDP	-0.70	-12.51***	-0.88	-13.07***	1.212	0.183***
NEER	-1.48	-11.49***	0.53	-11.51***	1.024	1.0242**
TMM	-2.096	-7.088***	-1.67	-6.63***	1.038	0.253***
M2	-0.83	-9.31***	-0.89	-9.31***	0.479***	0.1836*

Source: own calculations

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

The analysis of the calculated values of the (ADF) statistic shows that they are all above the usual statistical threshold of 5%. Similarly, the critical probabilities are all greater than 0.05. Therefore, we accept the null hypothesis of non-stationarity, and we can conclude that all the variables tested have a unitary root and are therefore not stationary in level.

Also, the analysis of the calculated values of the P-P test are all greater than -3.467. So, we accept the null hypothesis of non-stationarity, not all variables are stationary in level.

As a first difference, we note that the calculated values of the P-P statistic are all lower as a first difference than the usual statistical threshold of 5%. Therefore, we reject the null hypothesis of non-stationarity, we can conclude that the tested series do not have a unitary root and that the series are stationary in first difference.

It can be concluded that the tested series are integrated in order 1. This stationarity is checked by the ADF test and confirmed with the P-P & the KPSS tests. Since the series are stable, we can analyze the relationships that allow us to identify whether there are long-term relationships between the model variables.

4.1. Cointegration relationship analysis

To test the cointegration relationship between series, tests are required to show that the series studied have econometric properties, that is, they are not correlated with each other and the model residuals are uncorrelated. To do this, several tests are possible, among others, the correlation test of Breusch-Godfrey, the test of Ramsey Reset and the normality test of Jacque-Bera.

To analyze the long-term relationship between the variables in our study, the Bond Cointegration Test is applied in an autoregressive dynamic delay modelling (ARDL). This approach was suggested by Pesaran&

al. (2001) and may be used regardless of the variables' order of integration. Applying the ARDL model involves estimating the following error correction models.

$$\Delta LCPI = c + \sum_{i=1}^n \alpha_1 \Delta LCPI_{t-i} + \sum_{i=1}^n \alpha_2 \Delta LTMM_{t-i} + \sum_{i=1}^n \alpha_3 \Delta LGDP_{t-i} + \sum_{i=1}^n \alpha_4 \Delta LM2_{t-i} + \sum_{i=1}^n \alpha_5 \Delta LNEER_{t-i} + \beta_1 LCPI_{t-1} + \beta_2 LTMM_{t-1} + \beta_3 LGDP_{t-1} + \beta_4 LM2_{t-1} + \beta_5 LNEER_{t-1} + \xi_t$$

To examine the existence of a cointegration relationship between variables, the underlying statistical procedure is the F-statistic of the Wald test. The null hypothesis of the F-statistic is initiated as follows:

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$$

$$H_1: \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq 0$$

In our study, we will compare the F-statistic calculated with the critical values of the Peseran& al (2001). Deciding whether a cointegration relationship exists is confirmed if the calculated F-statistic is above the tabulated upper limit. However, if the F-statistic is between the bounds, no conclusion can be deduced and if the F-statistic is below the lower bound, the null hypothesis of no cointegration is accepted.

Table 2

F-statistic of Cointegration Relationship

Test statistic	Value	Lag	Significance level	Bound Critical values*	
F-statistic	4.114	4		I(0)	I(1)
			1%	3.74	5.06
			5%	2.86	4.01
			10%	2.45	3.52

Source: own calculations

Table 3

ARDL-ECM diagnostic test

LM			
SerialCorreX2(4)	5.0792 [.279]	FunctionalForm X2(1)	.20950 [.647]
Normality X2(2)	1792.9 [.000]	HeteroscedasticityX2(1)	8.3441 [.004]

Source: own calculations

Based on the results announced in the table, it is noted that the F-calculated (4.114) is higher than the highest value of Pesaran et al. (2001) of 5%. Therefore, we can conclude that there is a long-term relationship between the Consumer Price Index (CPI) and the variables that influence it directly or indirectly. This relationship may be a short-term or long-term relationship.

4.2. Long-term elasticity by the ARDL approach

First, we presented the long-term elasticity between the consumer price index (CPI) and its determinants to show the impact of each variable, specifically the money market rate (MMR) and the nominal effective exchange rate (CET), which are the two monetary policy instruments of the Tunisian central bank.

Table 4

Long-term relation ARDL approach

Dependent variable: CPI			
Lag structure: (2, 2, 0, 1, 1)			
Regressor	Coefficient	T-Ratio	p-value
LM2	0.0133	2.8007***	0.0063***
LGDP	0.4211	10.3417***	0.0000***
LNEER	0.0382	0.4845	0.6290
LTMM	0.6195	0.7345	0.4649
C	-2.9155	-6.6607***	0.0000***

Source: own calculations

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

On the basis of the results reported in the table, we note that there is a positive and significant relationship between the (CPI) and the money supply (M). A 1 percentage point increase in the money supply leads, with an equal value for all other factors, to an increase in inflation of 0.0133 percentage points in the long term. This result is confirmed by the economic theory of the monetarists which states that inflation is of monetary origin and that any increase in the money supply has a positive effect on inflation at least in the long term.

In fact, an increase in global liquidity, particularly through loans to the economy, results in an increase in overall demand that leads to additional inflation.

The work carried out by the BCEAO (2002 and 2006) on annual data covering the period 1971 to 2005 shows that in the WAEMU countries, both on the short and long terms, inflation is sensitive to changes in the money supply. According to the work carried out in 2002 and 2006, an increase of 1 percentage point in the money supply leads, with an equal value for all other factors, to a growth in inflation of 0.10 point in the short term and 0.35 point in the long term.

We also show that the long-term relationship between the (CPI) and (GDP) is positive and significant. An increase of 1 percentage point of (GDP) generates an increase of 0.421 percentage points.

This relationship can be interpreted as follows: a growth in the wealth of a nation encourages households to consume more; and consequently, generates an increase in the overall demand. This increase can lead to an imbalance in the market and regarding the supply and demand law, any return to equilibrium is done through prices. But in Tunisia and especially after the Revolution, it is most likely that this positive relationship comes after a continuous increase in wages without an increase in productivity.

In the same vein, the long-term relationship between the (CPI) and the (NEER) is the same as for the (TMM). This positive coefficient shows that these two variables influence positively (CPI). In short, it can be concluded that there is a link between the monetary policy instruments: the exchange rate channel, the monetary channel and the interest rate channel.

4.3. Short-term elasticity of the ARDL approach

We recall that the success of an inflation targeting policy requires an appropriate compression of the mechanisms of monetary policy transmission. Therefore, the search for a short-term relationship has just sought the direct and immediate relationship between the variables and therefore, determines the most appropriate instrument of the monetary policy of the central bank of Tunisia.

Table 5

Short-term relationship of the ARDL approach

Dependent variable: DCPI			
Lag structure: (2, 2, 0, 1, 1)			
Regressor	Coefficient	T-Ratio	p-value
D(LCPI(-1))	0.841747	8.133234***	(0.0000)***
D(LM2)	0.017754	9.047917***	(0.0000)***
D(LM(-1))	-0.012561	-5.003516***	(0.0000)***
D(LTMM)	1.000166	1.994393**	(0.0492)**
D(LGDP)	0.076225	3.175072***	(0.0021)***
D(LNEER)	0.043939	2.124284**	(0.0365)**
CointEq(-1)	-0.180717	-3.330736***	(0.0013)***
Cointeq = CPI - (0.0133*LM2 + 0.4218*LGDP -0.0382*LNEER + 0.6192*LTMM - 201954)			
R-Square	.66477		
DW-statist	2.0328		
R-BarSqua	.62969		

Source: own calculations

Note: *** significant at 1% level, ** significant at 5% level, * significant at 10% level

The results of the table above confirm the existence of a short-term relationship between the consumer price index (CPI) and its determinants. The negativity and significance of the error term prove the existence of a stable long-term relationship. In the short term, there is a positive and significant relationship with the delayed consumer price index of a DCPI period (-1), money supply in the sense of (M2), money market rate (TMM), gross domestic product (GDP) and the nominal effective exchange rate (NEER).

So, for the Tunisian economy, inflation is influenced by its delayed value for a period. Monetary authorities must take into account the value of the consumer price index in order to make good forecasts for future values. So every time the central bank changes one of these monetary policy instruments to achieve price stability, you have to take into account the past value of the instrument variables.

In short, there is a stable and predictable link between monetary policy instruments through their direct effects on the determination of the consumer price index.

4.4. Stability test

We assess the stability of the long-term relationship between the Consumer Price Index (CPI), Gross Domestic Product (GDP), the nominal effective exchange rate (TCEN), money supply (M2) and the money market rate. We use the "CUSUM" and "CUSUM-squared" tests to test the constancy of long-term parameters. For this, we applied the CUSUM and CUSUMQ tests proposed by Brown, Durbin and Évans (1975).

These tests are applied to the residuals of the money demand equation model. The CUSUM test is based on the sum of the residuals. It represents the curve of the cumulative sum of residues together with 5% of the critical lines. Thus, the parameters of the model are unstable, if the curve is outside the critical zone between the two critical lines; it is stable, if the curve is between the two critical lines.

The same procedure is applied to perform the CUSUMQ test, which is based on the sum of the square of residues. The graphical representation of these two tests applies to the selected model from adjusted R² as shown in Figures 1 and 2 below.

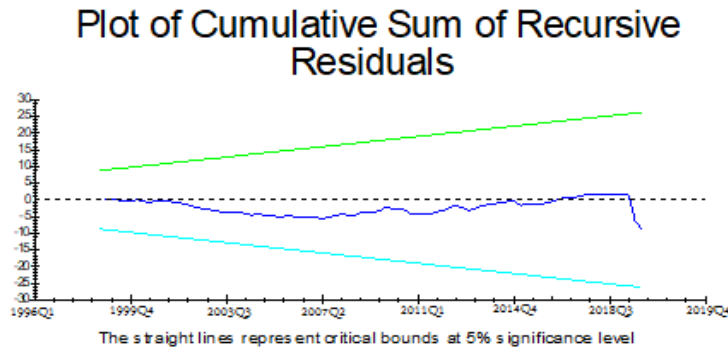


Figure 1. Cumulative sum of tailings curve
Source: own compilation

Figure 1 shows the graph of the sum of residuals curve. It remains between the critical lines stating the stability of the (CPI) relationship and its determinants throughout the study period to 2018. This stability may be explained by the depreciation of the national currency, which is generally followed by an increase in the prices. This could therefore trigger inflation. Faced with this increase in prices, the Tunisian monetary authorities will certainly increase the TMM to counter it

Thus, the return to balance between these variables is achieved through the two monetary policy instruments, the most targeted in Tunisia are the interest rate channel and the exchange rate channel.

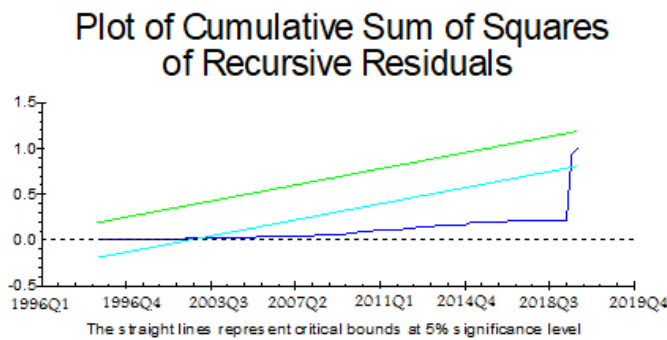


Figure 2. Cumulative sum of squares of the residue
Source: own compilation

Figure 2 shows the graphical explanation of the cumulative sum of the square of tailings. It appears that this cumulative sum is totally unstable as the statistics are located outside the critical lines especially from the third quarter of the year (1996 Q3) until the third quarter of (2018 Q3). From that date on, there was a sudden return to stability.

4.5. Coefficient stability test

We applied the recursive coefficient stability test to study possible changes in the different coefficients of the model.

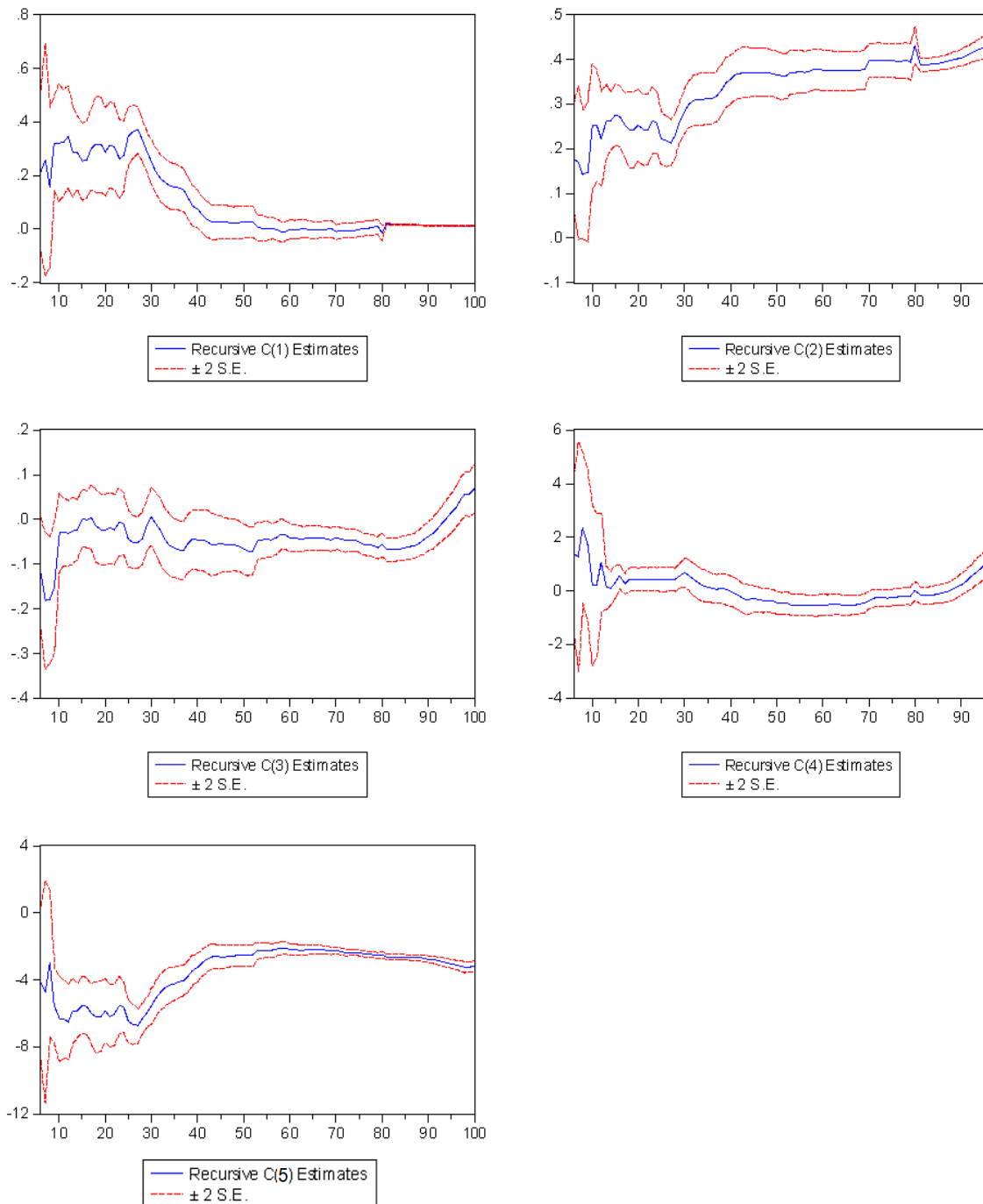


Figure 4. Recursive coefficient stability test

Source: own compilation

From the figure above, it can be seen that the coefficients evolve within the confidence intervals. We therefore reject the hypothesis of the existence of structural change for the various coefficients.

5. CONCLUSION AND POLICY IMPLICATIONS

The static and empirical evaluations deal respectively with the different prerequisites of an inflation targeting strategy and represent an estimation of a relationship between the consumer price index and these determinants. We tried to give a response to the question: is the inflation targeting strategy the solution for the future of Tunisia?

In the first place, this article assessed the existence of institutional requirements that consist in independence, transparency of the central bank and a strong and stable financial system. Economic requirements include macroeconomic stability, robust and predictable linkages between monetary policy instruments, an adequate understanding of the transmission mechanisms of monetary policy and a flexible exchange rate regime.

The results found show that, institutionally, the central bank has a clear mandate that defines price stability as a primary objective of monetary policy. It is independent in terms of instruments but not necessarily in terms of objectives. From a statutory point of view, the BCT is not independent in terms of objectives. In terms of transparency, the process for reporting monetary policy decisions by the BCT is generally transparent. However, forecasts of future inflation dynamics do not exist given the nonexistence of a well-performing forecasting model. The financial system is not sufficiently developed and stable, it is dominated by a banking sector characterized by relatively limited, fragile competition, and suffers from a high level of classified debt. So, the Tunisian stock exchange is very little liquid. Economically, there is no fiscal dominance, since Tunisia can use seigniorage. Regarding, the exchange rate, the IMF currently classifies the exchange rate regime in Tunisia as a managed float regime, where the Central Bank of Tunisia (BCT) intervenes in a discretionary manner, whenever it deems it necessary.

In a second objective, this article evaluated the relationship between the CPI and its determinants using the ARDL approach combined with the tests of CUSUM and CUSUMQ. The results show that (CPI) is cointegrated with (GDP), MM and the interest rate (Tint). As for the evaluation of the estimated model stability, the results show that the long-term relationship is somewhat stable specifically with the CUSUM test but not with the CUSUMQ test.

This empirical assessment shows the existence of predictable links between the price index and its determinants, which is one of the main conditions for selecting an inflation targeting policy.

Finally, In the present case, Tunisia has the possibility of adopting this monetary regime at least in an implicit cautious and gradual manner which constitutes a transitional phase to a real inflation targeting regime.

ACKNOWLEDGEMENT

Authors contributions: Conceptualization, M.G, H.S., and S. M.; data curation, H.S. and M.G.; writing-review - original draft preparation, H.S. M.G and. S.M.; ending, S. M.; supervision, S.M., H.S.; project administration, M.G, H.S.

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