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Determinants of Inflation Sources in Iraq: An Application of Autoregressive Distributed Lag (ARDL) Model

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Abstract

Most economists agree that the emergence of substantial inflationary pressure in Iraq was due to the monetary growth arising from large increase in the money supply by government to finance enormous budget deficit. This was true especially during the comprehensive sanction imposed on the country between 1990 till 2003. Others point out to exchange rate depreciations as another cause to inflation. Such controversy about the causes of inflation in Iraq has necessitated studying this phenomenon quantitatively. Our main contribution is to assess empirically the effects of money supply, exchange rate, and import on inflation in Iraq over the period 1995–2015. Using the ARDL bounds testing approach, we estimated the long-run effects of those variables on real inflation. In addition, we attempt to draw attention to the impact of changes in global prices on the phenomenon of inflation in Iraq. It is analyzed that money supply, exchange rate and import, change inflation to 0.59, -0.85, and 0.11 percentage points respectively by one percent rise in long-run. The Error Correction Model with a negative sign remained statistically significant with approximately 34% speed of adjustment to restore the equilibrium in the long-run, which was convergent quickly.

Keywords: Inflation; Money supply; Exchange rate; Import; Autoregressive distributed lag; Iraq.
JEL Classification: C 32; E 31; E 32; E51.

1. Introduction

Inflation is one of the most dreaded economic terms that central banks officials try to curb at all times. It can be defined as a continuous increase in the average price level for a basket of selected goods and services over a period of time. Accordingly, several economic theories tried to explain this touchy economic phenomenon. This is to include: the classical theory of inflation (the quantity theory of money), the Keynesian theory of demand-pull inflation, and the structural theory of inflation. According to the quantity theory of money, there is a positive relationship between money supply and price levels. Therefore, inflation can be caused by an expansion of the money supply of a given economy. On the other hand, the Keynesian theory states that at optimum employment of output, an increase in the general price level comes as a results of an increase in the aggregate demand over an increase in the aggregate supply. Meanwhile, the structural theory of inflation tried to explain the sustained rising prices in less developed countries (Kirkpatrick and Nixson, 1976). It asserts that inflation can be explained by the inelasticity in the structures of the economy. This is to include: inelasticity in the employment structures and agricultural sectors, production level capacity and capital formation. Accordingly, high level of inflation will have severe consequences on investments and economic developments. It increases the cost of living and the cost of borrowing as well as discouraging expansion of businesses and the economy. On the other hand, low inflation promotes a sustained economic growth and low unemployment. Thus, this is study will capitalize on previous economic theories related to inflation and examine the sources of this phenomenon in Iraq. However and to get a better handle on this subject, it will be imperative to address some important events that took places in Iraq and which exerted a great influence on the economy of that country.

From the onset, the economy of Iraq is dominated by the oil sector. It provides more than 90% of government revenue and 80% of foreign exchange earnings (World Bank, 2018). However, Iraq witnessed a lot of political, social, and economical turbulences for the past several decades. This led to a one financial crises after another. Staring from the eight-year war with Iran in 1980-1988 and the consequences of disruption and destruction of the oil industry, in addition, to the depletion of the oil reserves that was amassed throughout the years. Then, followed by the invasion of Kuwait in 1990 and the heavy price of the international sanctions that was imposed for years to come as a result of that invasion. These events led to a pile up of enormous international debt crippling the economy of the country that was once a prosperous one. Regardless of the pervious turbulences and events, improving the security environment and achieving stability led to an increase in foreign and domestic investments. At the same time, Iraqi government was able to keep inflation under control after it reached its all-time high of 76.55% in August of 2006 to a low record of -6.37% in October of 2009 (Trading Economics, 2018). In general, there are various indices that are used to measure inflation such as consumer price index (CPI), wholesale price index (WPI), and gross domestic product (GDP) deflator. However, CPI is considered to be an appropriate index to measure the cost of living.

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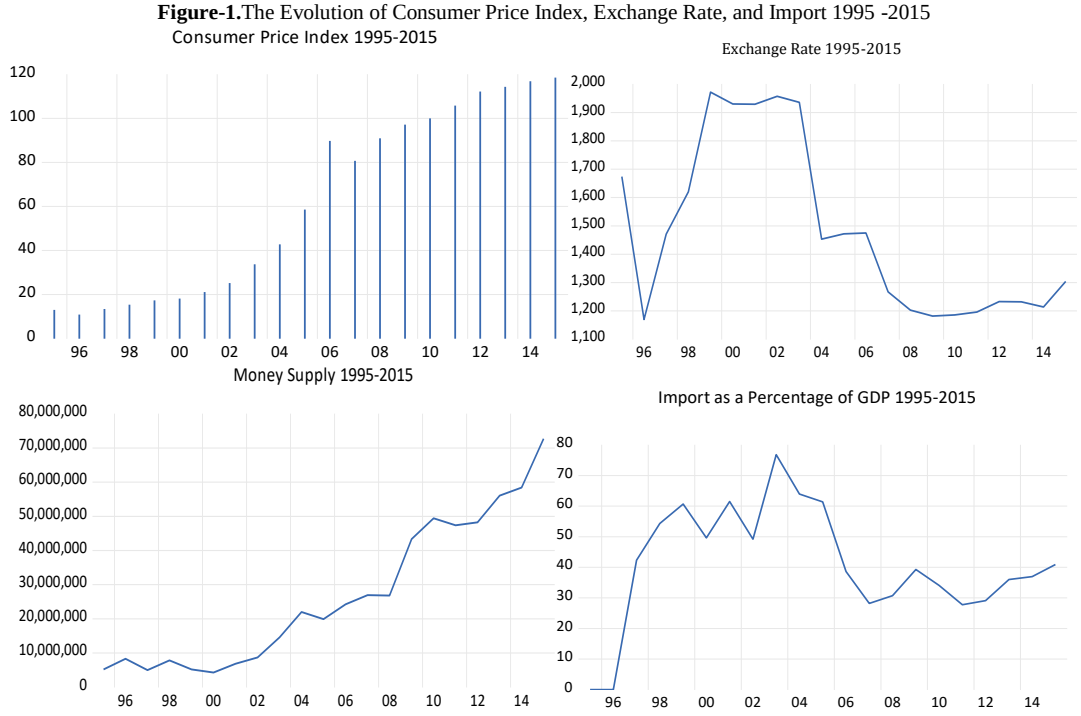
Therefore, Figure 1 displays the evolution of consumer price index (CPI) in Iraq from 1995 till 2015 with a base year of 2010. Moreover, the same figure indicates that the exchange rate of the Iraqi dinar against the US dollar started to stabilize in the year 2006 and crawling back to approximately the level of the year 1996. In contrast, Figure 1 also shows a consistent increase in the money supply throughout the years to finance the government large budget deficit especially during the sanctions period of 1990 and 2003. On the other hand, imports as a percentage of the GDP have declined from its peak of nearly 75% in 2003 to approximately of 40% in 2015. It is worth mentioning that Iraqi imports are mainly food, fuel, medicines and manufacturing goods. In addition, its major import partners are China, Iran, Japan, South Korea, Syria, Turkey and the US. The import variable and the previously mentioned variables will be discussed thoroughly at later sections in the paper to show their effects on inflation.

Figure-1. The Evolution of Consumer Price Index, Exchange Rate, and Import 1995 -2015



The objective of this study is to investigate the determinants of inflation in Iraq by utilizing the ARDL model. This paper is unique and unrivaled from previous empirical studies in many ways. First, researches on the determinants of inflation in Iraq are scarce due to wars and instability in Iraq in the past. Therefore, this manuscript will provide an extension and added value to previous literatures and ultimately enrich the knowledge of policy makers in Iraq. Second, it employed most recent data that span for the past twenty years.

This study is organized into five sections as follows: Section 2 briefly displays the previous studies. On the other hand, data and methodology are illustrated in section 3. Section 4 provides the empirical results and the analysis. The concluding remarks and recommendations are presented in section 5.

2. Literature Review

There are plenty of published empirical studies on the determinants of inflation in various countries around the world. However, there is a lack of investigative researches on the determinants of inflation of Iraq taking into consideration what Iraq went through for the past decades from wars, destruction, corruption, political unrest, and instability. Therefore, this section will briefly shed the light on some of the important articles related to factors that have direct influence on inflation for different counties worldwide.

Starting with a recent study by Naseem (2018) where she investigated the macroeconomic determinants of inflation in Saudi Arabia during 2000-2016. She used several explanatory variables to measure their influences on inflation. These variables were: money supply, fixed exchange rate against the US dollar, oil prices, imports, exports and unemployment. The empirical findings reveal that all variables except unemployment, were found to have a significant impact on inflation in Saudi Arabia. On the other hand, Chaudhary and Xiumin (2018) tested the impact of money supply, real GDP, and consumer price index of India on Inflation in Nepal. They employed the ordinary least squares (OLS) model on the previously mentioned variables from the year 1975 till 2016. Their empirical results show that all three variables exerted a significant influence on inflation in Nepal.

Similarly, Kahssay (2017) utilized both the OLS method and the ECM to examine the determinants of inflation in Ethiopia. The results show that money supply and GDP had a positive and significant effect on inflation in Ethiopia. On the other hand, imports and gross national saving led to a decline in consumer price index. Meanwhile, the variables credit facility and export were found to be insignificant.

In addition, Mohanty and John (2015) studied the impact of crude oil prices, output gap, fiscal deficit and policy rate on inflation in India utilizing structural vector autoregression model (SVAR). The results show that the output gap had a systematic effect on inflation in India and the fiscal deficit variable was the most significant one in the year 2011-2012. However, it was concluded that the monetary policy influence on inflation in India remained

unchanged. Similarly, Ruzima and Veerachamy (2015) examined the determinants of inflation in Rwanda by employing the OLS method. They found that agricultural output and imports variables were the main forces behind inflation during the period 1970-2013. On the other hand, government spending and foreign direct investment found to have insignificant influence on inflation in Rwanda. In addition, Abdel Haleem and Khader (2015) investigated the determinants of inflation in Palestine. Their results show a positive relationship between inflation and foreign exchange rate. Moreover, they found a direct correlation between inflation and each of the money supply variable and the price index of imports variable. On the other hand, real GDP and inflation were inversely related.

Further, Kirimi (2014) used the OLS model to examine the determinants of inflation in Kenya between the year 1970 and 2013. The results revealed a positive relationship between money supply, exchange rate and inflation. In contrast, GDP growth rate, and corruption perception had a negative relationship with inflation. Wages and political instability variables found to be insignificant and exerted no influence on inflation. On the other hand, Paudyal (2014) empirically tested the determinants of inflation in Nepal during the year 1975 and 2011. The study used the ECM on several macroeconomic indicators to include budget deficit, Indian prices, broad money supply, exchange rates and real GDP. The findings show that all previously mentioned variables were significant in the long-run and were behind inflation in Nepal. However, short-run results reveal that only budget deficit, money supply and Indian prices exerted pressure on inflation in Nepal.

Correspondingly, Gyebi and Boafo (2013) tested the effect of certain macroeconomic variables on inflation in Ghana. Their results show that money supply and real exchange rate were the main significant causes of inflation in Ghana. In addition, growth in real output, expenditures, and money supply led to an increase in price level.

On the other hand, Suliman (2010) researched the determinants of inflation in Sudan between 1970 and 2002. His findings show long-run effect for both monetary and foreign exchange sector on the evolution of inflation. The results of the ECM confirm the existence of stable equilibrium in the monetary sectors. In addition, money growth found to have a significant impact on the dynamic of inflation in Sudan. By the same token, Tafti (2012) analyzed the causes of inflation in the Islamic Republic of Iran. He utilized several econometric techniques to include Johansen and Juselius maximum likelihood method, VAR method, impulse response function (IRF), and forecast error variance decomposition (FEVD). The results show liquidity and import price index had a positive effect on inflation. As for the real GDP, it was found to have a negative impact on inflation in Iran.

By the same token, Bayo (2011) empirically examined the determinants of inflation in Nigeria. The findings indicate that macroeconomic variables including fiscal deficit, money supply, interest rates and exchange rates all had positive and significant impact on inflation in Nigeria. Likewise, Khai (2011) found that money supply and oil price had a positive relationship with inflation in Malaysia. In contrast to unemployment rate and exchange rate variables, both exhibited a negative relationship with inflation in Malaysia. Similarly, Bandara (2011) tested factors that affect inflation in Sri Lanka during the years 1993-2008. The results of vector autoregressive models suggest that money supply, exchange rate, and the GDP could explain the behavior of inflation in Sri Lanka.

On the other hand, Khan and Gill (2010) used four price indicators: CPI, WPI, SPI, and GDP deflator to investigate the causes of inflation in Pakistan. The results of the OLS models reveal that exchange rate and imports variables had a significant impact on inflation in Pakistan. In contrast, budget deficit found to have no significant impact on all four indicators of inflation in Pakistan. In the same manner, Kandil and Morsy (2009) examined the determinants of inflation in the Gulf Cooperation Council (GCC) countries for the period 1970-2007. They found that inflation of major trading partners had the most direct influence on inflation in the GCC countries. In addition, oil revenue enhanced the inflationary pressure through credit growth and aggregate spending. Similarly, Al-Omar (2007) used three variables to study the determinants of inflation in Kuwait. The variables were foreign inflation, domestic money supply, and domestic real GDP. The results found no evidence of long-run relationship between domestic inflation and foreign inflation. On the other hand, cointegration results show an existence of long-run relationship between inflation and domestic money supply. However, short-run relationship as shown by Granger causality test revealed a lack of relationship between domestic inflation and the rest of the variables. Also, Laryea and Sumaila (2001) utilized the ECM to investigate the determinants of inflation in Tanzania. Their findings show that both short-run and long-run were influenced by monetary variables. The volatility of output and depreciation of the exchange rate affected inflation but to a lesser extent.

Likewise, Papi and Lim (1997) used also the ECM to examine factors the influence inflation in Turkey. They concluded that variables of money and exchange rate were the main sources of inflation in Turkey. In addition, public sector deficits were found to have a direct and significant impact on inflation as well. On the other hand, Dhakal *et al.* (1994) tested the determinants of inflation in the United States using the vector autoregressive model. Their results show that money supply, wage rate, budget deficit and energy prices were the key variables that influenced inflation in the United States.

In summary, most previous literature concentrated on studying the impact of macroeconomic indicators on inflation for different countries to enhance and support the views of inflation theories. However, most researched articles reached the same conclusion that certain macroeconomic variables such as money supply, exchange rate, interest rate, unemployment, imports, and GDP can affect inflation in most countries worldwide.

3. Data and Methodology

3.1. Data and the Selection of Variables

The data used in this study are time series data span from the year 1995 till 2015.The choice of the period was unavoidable by the fact that data were not available. Data were collected from World Bank database published by World Bank, Statistical Reports, Central Bank of Iraq, for the period 2004–2015, and Ministry of Finance,

Accounting Department. This study used the annual data for consumer price index as a measure of inflation, money supply (M2), parallel exchange rate or the market price of the domestic currency against the US dollar, and import value as a percentage of gross domestic products. All data are in real term and converted into natural logarithms to obtain more efficient and consistent results.

3.2. The ARDL Bound Test Approach for Cointegration

This study uses the autoregressive distributed lag (ARDL) approach, or bound test of cointegration technique, suggested by Pesaran and Shin (1995); Pesaran and Shin (1999) and extended by Pesaran *et al.* (2001). Autoregressive Distributed Lag (ARDL) co-integration test is used due to a number of econometric advantages compared to other cointegration procedures, such as, the Granger (1981), Engle and Granger (1987), and Johansen and Juselius (1990). It allows the long and short-run parameters of the model in question to be estimated simultaneously yet evade the problems posed by non-stationary data. In addition, and according to Narayan (2004), the small sample properties of the bounds testing approach are far more superior to that of multivariate cointegration. Also, there is no need to determine the order of the integration among the variables in advance. Other approaches however, do require that variables have the same order of integration (Nkoro and Uko, 2016). Therefore, the model of the study can be expressed as in equation 1:

$$LINF_t = (LM2_t, LIMP_t, LExR_t) \dots\dots\dots (1)$$

Where LINF is the natural log of consumer price index as a measure of inflation, LM2 is the natural logarithm of money supply, LIMP is the natural log of import and LExR is natural log of exchange rate. However, the parallel or the market price of the local currency is used for exchange rate.

The ARDL specification of the relationship between inflation, exchange rate, money supply, and import is given in equation 2 as:

$$\Delta LINF_t = \alpha_{INF} + \sum_{i-1}^{m} \beta_{iINF} \Delta LINF_{t-i} + \sum_{i=0}^{m} \beta_{iExR} \Delta LExR_{t-i} + \sum_{i=0}^{m} \beta_{iM2} \Delta LM2_{t-i} + \sum_{i-0}^{p1} \beta_{lIMP} \Delta LIMP_{t-i} + \beta_{INF} LINF_{t-1} + \beta_{ExR} LExR_{t-1} + \beta_{M2} LM2_{t-1} + \beta_{IMP} LIMP_{t-1} + \varepsilon_t \dots\dots\dots (2)$$

Where *m* is the optimal lag length and Δ refers to the first difference of variables.

Lag orders were selected using AIC because results are usually better and more consistent than utilizing other information criteria (Lütkepohl, 2006).

The ARDL model involves two steps for estimating long-run relationships. The first step is to examine the existence of long relationship among all variables in the equation under estimating. This can be done by using the F-test or Wald-statistic.

The hypotheses for testing the existence of any long-run cointegration among the proposed variables in this study are as follows:

$$H_O : \beta_{INF} = \beta_{ExR} = \beta_{M2} = \beta_{IMP} = 0$$
$$H_A : \beta_{INF} \neq \beta_{ExR} \neq \beta_{M2} \neq \beta_{IMP} \neq 0$$

Once a long-run cointegration relationship is found to exist, the second step is to estimate the long and short-run elasticities using equations 3 and 4, respectively.

$$LINF_t = \alpha_{INF} + \sum_{i-1}^{m} \beta_{iINF} LINF_{t-i} + \sum_{i=0}^{m} \beta_{iExR} LExR_{t-i} + \sum_{i=0}^{m} \beta_{iM2} LM2_{t-i} + \sum_{l-0}^{p1} \beta_{lIMP} LIMP_{t-i} + \varpi_{1i} \dots\dots\dots (3)$$

$$\Delta LINF_t = \alpha_{INF} + \sum_{i-1}^{m} \beta_{iINF} \Delta LINF_{t-i} + \sum_{i=0}^{m} \beta_{iExR} \Delta LExR_{t-i} + \sum_{i=0}^{m} \beta_{iM2} \Delta LM2_{t-i} + \sum_{i-0}^{p1} \beta_{lIMP} \Delta LIMP_{t-i} + \lambda ECT_{t-1} + \varpi_{2i} \dots\dots\dots (4)$$

The ECT_{t-1} is the one lagged value of the error terms series which are derived from the long-run relationship. The coefficient of this variable indicates how much of a short-run imbalance will correct in the long-run. The coefficient is expected to be negative and less than one.

4. Results and Analysis

4.1. Descriptive Statistics

Table 1 displays some descriptive statistics of each variable in the natural logarithm form over the 1995–2015 period. It also show the correlation matrix as well. In addition, Figure 1 presents the evolution of each variable in Iraq over the period 1995–2015. As we can see there are large variations in all of the variables. The reasons behind this variations are the political instability as well as the sanction imposed on Iraq after 1991.

Table-1. Descriptive Statistics and Correlation Matrix

Description	LINF	LExR	LIMP	LM2
Mean	3.804093	7.280650	3.019461	16.71742
Median	4.070427	7.281386	3.670901	16.90677
Maximum	4.775244	7.586804	4.341749	18.10211
Minimum	2.386802	7.064759	-4.159045	15.27207
Std. Dev.	0.889347	0.197342	2.383790	0.958847
Skewness	-0.300143	0.466822	-2.680482	-0.135369
Kurtosis	1.420175	1.677544	8.358850	1.536974
INF	1.00000			
ExR	-0.65148	1.00000		
IMP	0.420818	0.152645	1.00000	
M2	0.95493	-0.75731	0.28140	1.0000
Sum Sq. Dev	15.81876	0.77884	113.6491	18.38776
Observations	21	21	21	21

4.2. Unit Root Tests

The unit root tests results are presented in Table 2. Both ADF and PP results reveal that inflation (LINF) and exchange rate (LExR) are stationary at level, that is, I(0), while import (LIMP) and money supply (LM2) are stationary at first difference, that is, I(1). Therefore, considering the mix order of integration of the variables, the ARDL approach is the most fitted approach comparing with other conventional cointegration approaches.

Table-2. Results of the Augmented Dickey Fuller (ADF) and Phillips Perron (PP) Unit Root Tests

Variable	Test	Level	Lag	α	α+t	First difference	Lag	α	α+t	Stationarity
LINF	ADF	-4.15 (0.019) **	1		√	-	-	-	-	I(0)
	PP	-4.43 (0.011) **	1		√	-	-	-	-	I(0)
LIMP	ADF	-2.26 (0.260)	1		√	-4.36 (0.002) ***	0	√	-	I(1)
	PP	-1.83 (0.357)	1		√	-4.37 (0.002) ***	0	√	-	I(1)
LExR	ADF	-7.71 (0.000) ***	0		√	-	-	√		I(0)
	PP	-7.71 (0.000) ***	0		√	-	-	√		I(0)
LM2	ADF	-2.60 (0.285)	1		√	-5.02 (0.001) ***	0	√	-	I(1)
	PP	-3.10 (0.129)	1		√	-5.02 (0.001) ***	0	√	-	I(I)

Note:*** and ** are significant levels at 1% and 5%, respectively. The Schwarz information criterion is used for determining the lag period.

4.3. Bound Test for Cointegration

Having identified the optimum lag length as in Table 3, the next step is to estimate the long-run relationship among the variables. The hypothesis of cointegration is:

$$H_O : \beta_{LINF} = \beta_{LExR} = \beta_{LM2} = \beta_{LIMP} = 0$$

$$H_A : \beta_{LINF} \neq \beta_{LExR} \neq \beta_{LM2} \neq \beta L_{LIMP} \neq 0$$

Table-3. Optimal Lag Length Selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	2.285009	NA*	0.069264	0.163333	0.362289	0.206511
1	4.740084	3.741067	0.060579*	0.024754*	0.273450*	0.078727*
2	4.751809	0.016750	0.067028	0.118875	0.417310	0.183643
3	4.751811	2.23e-06	0.074476	0.214113	0.562287	0.289676
4	5.904134	1.426686	0.074435	0.199606	0.597520	0.285964
5	6.031868	0.145982	0.082410	0.282679	0.730332	0.379831

The calculated F indicates that the null hypothesis could be rejected at 1% level of significance. In addition, the *F*-statistic (5.998) exceeded the respective upper bounds (4.48) of the critical values tabulated by Narayan (2005) at the aforementioned levels of significance. As such, a cointegration relationship exists over the study period of 1995–2015. These results are reported in Table 4.

Table-4. Results of ARDL Cointegration Test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Sig	I(0)	I(1)
F-statistic	5.997669	10%	2.01	3.1
		5%	2.45	3.63
		1%	3.42	4.84

After establishing a cointegration relationship among the variables, the long-run model in Equation 3 was estimated to acquire the long-run coefficients. The estimated long-run coefficients are reported in Table 5.

Table-5. Long and-Short-Run Results

Dependent variable=Lcpi				
Long-run results, variables	Coefficient	Std. error	T-statistic	Prob-value
LM2	0.594405*	0.086644	6.860296	0.0000
LExR	-0.847807*	0.215087	-3.941687	0.0013
LIMP	0.108923**	0.050104	2.173940	0.0461
Short-run results				
LM2	0.19922***	0.10678	1.865594	0.0818
LIMP	0.45678*	0.14702	3.106917	0.0072
LExR	-0.00736	0.01692	-0.434965	0.6698
$ECM_{(t-1)}$	-0.33515*	0.06246	-5.365521	0.0001
Diagnostic tests				
Test	F-statistic	Prob-value		
NORMAL	1.080918	0.582481		
SERIAL	4.348563	0.0558		
ARCH	0.02727	0.8704		

*, **, *** Denote significant at 1%, 5%, and 10% level respectively.

The results reported in Table 5 show that money supply M2 is major contributor to inflation and it is statistically significant at the 1% level. The long-run estimates postulated that money supply (LM2) is the most important determinant of inflation in Iraq during the period 1995-2015 and as stated statistically significant at the 1% level. The finding is similar to the results obtained by Mahdi (1998) and Grigorian and Kock (2010) showing that money supply contributes positively to inflation. In fact an increase of one unit brings a change of 59 percent in inflation. In addition, the result is in line with what was shown in both the descriptive statistics and the correlation analysis. However, it is in contrasts with the neutrality hypothesis of money in long-term.

The second important factor affecting inflation is import. The coefficient of import is positive as expected, and statistically significant as well. This could be explained by the fact that Iraq is a small country and depends on its import of goods and services in order to bridge the gap between the market supply and demand. The real exchange rate found to have a negative sign and also statistically significant at the 1% level, indicating that the appreciation of the Iraqi dinar has the ability to curb inflation in Iraq in the long-run. To recap, in the long-run, virtually all the variables (LM2, LExR, and LIMP) were statistically significant determinants of inflation in Iraq.

Similarly, the short-run results reported in Table 5 show that exchange rate found to have a negative impact, but statistically insignificant. On the other hand, the impact of import on inflation found to be positive and statistically significant at 1% level.

The error correction term (–0.335) fulfilled the econometric requirement as it is negative and significant, which shows that the feedback mechanism is working. The error correcting factor is negative and statistically significant at the 1% level. This result implies that about 34 percent of the long-term adjustments have taken place within a year and of course inflation has some lag effects from the exchange rates and the import shocks.

4.4. Diagnostic and Stability Tests

The validity of the results is reliant on the fit and stability of the model. The diagnostics tests such as LM test for serial correlation, normality of residual term and Breusch-Pagan-Godfrey heteroscedasticity test for short-run model are reported in Table 5. Accordingly, Table 5 reports the residual diagnostics of the inflation model. The Lagrange multiplier serial correlation indicates that there is no auto correlation in the model at the 5% significant level. The residuals are normally distributed in the model as evidenced by the non-rejection of the null hypothesis using the Jarque-Bera test. Breusch-Pagan-Godfrey heteroscedasticity test indicates that there is no evidence of autoregressive conditional heteroscedasticity and same inference for white heteroscedasticity.

The stability of the model and the coefficients are checked through the CUSUM and CUSUM-Q, while the graphical presentation of the recursive coefficients is used to judge the stability of the coefficients. Figures 2 & 3 represent the graphs of CUSUM and CUSUM-Q and show that at the 5% level we can claim the stability of long and short-run parameters and are within the boundary of the critical limits.

Figure-2. Plot of cumulative of recursive residuals for Model 2

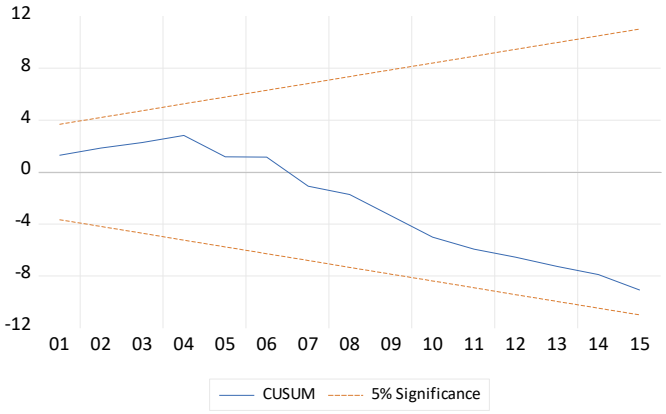
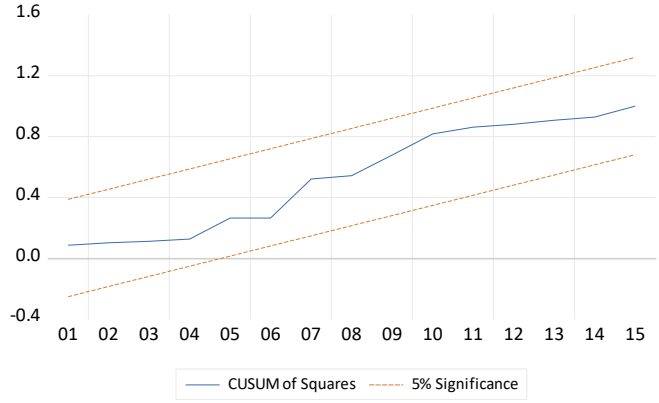


Figure-3. Plot of cumulative sum of sum of squares of recursive residuals.



5. Conclusion and Recommendations

This paper investigated the determinants of inflation sources in Iraq over the period of 1995–2015. We have applied ADF and PP unit root tests to test stationarity of the variables. Further, the ARDL bounds testing approach to cointegration was employed to investigate the long and short-run relationships between the variables. The findings reveal that in a long-run, high inflation is mainly due to an increase in the money supply. Furthermore, it is clear from the results that import openness cause increases in the overall level of prices in Iraq during the studied period. Regarding the exchange rate, the results showed that the devaluation of the local currency is one of the necessities of curbing inflation in Iraq.

In closure, the study provides the following recommendations: i) Achieving an equilibrium level between national output and the increase in the volume of money in circulation; ii) Allocating more financial resources toward productive sectors rather than service sectors; iii) Reducing government expenditure for consumption; iv) There must be proportionality between employment level and productivity; v) Minimizing the volume of cash traded by raising interest rates on loans and deposits; vi) Establishing a tax system to control the large increase in government spending, which increases the level of demand; vii) Increasing domestic products especially food and clothes to substitute imports.

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