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The Policy Of Targeting Inflation In The Kingdom of Saudi Arabia And Equilibrium Relations Using The Error Correction Model A standard study during the period 2023 - 1990 AD

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Abstract
The study aimed to build a measurement model for the inflation targeting policy that helps to avoid the problem of overlapping targets, and the problem of the study is that do the variables behave similarly in the long term? Accordingly, the study imposed the study imposed a main hypothesis, which is that the determinants of the inflationary gap do not tend to balance in the long term, and the study followed in the theoretical framework on the historical method, but in the practical framework, it relied on the method during the construction of a measurement model that studies the possibility of an equilibrium relationship linking the inflationary gap and its determinants (money supply - GDP - imports - exports) in the long term in the Kingdom of Saudi Arabia during the period from) 2023-1990 AD(Which helps the Central Bank to be more flexible in dealing with supply and demand shocks and reduce the occurrence of the problem of slowdown resulting from the pressures of the expansion of the money supply and the study reached a number of results, including the safety of the model statistically, where all variables of the estimated model are significant except for the variable imports and also there is a high adjustment speed for inflation determinants amounted to (18%) That is, when any shock occurs, it takes a year and a month towards its equilibrium value, and the determinants The inflationary gap between them tends to balance in the long term, so the study recommended the need to rationalize the consumption behavior of members of society as well as control the volume of cash liquidity by setting strict conditions for granting loans.
Keywords: inflation targeting policy, central bank independence, GDP.

Introduction:

Inflation is one of the economic indicators that help decision makers to draw their economic policies and use the appropriate tools to guide their economies in the short and long term. The Kingdom of Saudi Arabia is no different from many countries in terms of economic challenges, especially with the increasing degree of its economic openness to the world, as fluctuations in the prices of local goods related to exports and imports and other local factors affect aggregate demand and thus affect prices in general, import prices, export prices, money supply and exchange rate Effective nominal, non-oil GDP and the general level of world prices, as many developing countries have targeted inflation as a modern method for central banks to manage their monetary policies since the nineties due to its high ratesEspecially in light of the global debt crisis in the eighties, which resulted in a negative impact on economic growth rates and on the decline in economic resources, as this policy represented a modern method that sets a quantitative goal for the inflation rate for a certain time frame as an intermediate target for monetary policy, while the ultimate goal is to achieve price stability in the long term as a primary goal for monetary policymakers, as well as maintaining stable economic growth rates, which contributes to attracting local and foreign investments in addition to find employment opportunities.

The importance of the existence of an intermediate targeting of monetary policy lies in the role it plays in increasing the effectiveness of monetary policy in addressing inflation, which poses a real threat to economic activity, as it works to directly affect inflation as an intermediate variable to reach a specific inflation rate and not by affecting other intermediate variables such as exchange rates and interest rates for their indirect impact and this goal cannot be followed by another goal unless it is consistent and not conflicting with the basic goal and interacts goals Both monetary and fiscal policy under the inflation targeting system where monetary policy takes into account the effects of fiscal policy on inflation as a goal to achieve full justice In the term, the implementation of this policy requires that the Central Bank has ample advanced technical mechanisms to predict the rate of domestic inflation with transparency about the monetary policy strategy to communicate with monetary complexes and markets about the plans and objectives of policy makers. It also requires accurate knowledge of the country's monetary policy to face supply shocks or aggregate demand. In response to this endeavor, the policy of targeting inflation came as a framework for managing monetary policy after other frameworks showed their uselessness in reaching To achieve the ultimate goal, especially in light of the increasing economic changes at the local and global levels, as this policy aspires to control inflation in a way that contributes to providing an economic environment characterized by non-inflationary growth rates and improving the standard of living.

First: The problem of the study

The high inflation rates in the eighties on most developing countries had a negative impact on economic growth rates, as these countries were forced to work to reduce inflation rates and control it as a basic goal of monetary policy through several mechanisms, as the impact of the monetary targeting policy on price stability and inflation rates during late periods of time are unspecified as a result of the instability of the intermediate targets of monetary policies such as interest rates and prices, which leads to the creation of a problem represented in The policy of monetary targeting through monetary shocks results in a breakdown in controlling the expected inflation rates, thus weakening the monetary policy in achieving its goals on a regular basis, hence the necessity that requires determining a specific mechanism to reach the inflation rate and GDP at the target level.

The problem of the study lies in answering the following questions:

1- Do variables behave similarly in the long run, which means they have the characteristic of co-integration?
2- How can a scientific methodology be followed to reach a predicted inflation rate through a measurement model based on the description of the basic relationships between inflation and its variables? Second: Study Assignments

The study imposed a key hypothesis: that the determinants of the inflationary gap do not tend to balance in the long term.

Third: Study Methodology

The study relied in the theoretical framework on the historical method, while in the practical framework, it relied on the measurement approach during the construction of a measurement model that studies the possibility of a balanced relationship linking the inflationary gap and its determinants (money supply - GDP - imports - exports) in the long term.

Fourth: The importance of the study

The importance of the study lies in two aspects:

1- Scientific importance:By introducing the concept of inflation targeting policy, the requirements for its application and the method of conducting monetary policy by the Central Bank.
2- Practical importance:The importance of the process lies in reaching a measurement model that targets a specific rate of inflation in the Kingdom of Saudi Arabia during the period from (1990-2023), which helps the Central Bank to be more flexible in dealing with supply and demand shocks as well as reduce its occurrence in the problem of slowdown resulting from the pressures of expanding the money supply.

Fifth: Objectives of the study

The study aims to identify:

1- Finding the extent of long-term equilibrium relationships between the inflationary gap and its determinants.
2- Know the flexibility of the relationships between inflation.
3- Building a standard model for a crude rate and target inflation helps to avoid the problem of overlapping targets.

Sixth: Previous Studies

1- Rana Mohammed Al-Batrani – 2021 (1)

The study aimed to demonstrate the application of the policy of targeting inflation in the Egyptian business environment and the descriptive analytical approach and the deductive approach was used and the problem of the study lies in the availability of the requirements for the application of the inflation targeting policy in Egypt and the study found that Egypt succeeded in adopting a policy aimed at inflation by meeting the requirements of the application of this policy and therefore recommended the need to apply an economic reform program that carries out reforms at the economic level before starting to apply a policy of targeting inflation.

2- YousfiRoqayaWedad – 2020 (2)

This study aims to familiarize themselves with the various theoretical aspects of the policy of targeting inflation and the reality of its application in Algeria and the challenges faced and to show the relationship and impact between inflation rates and the annual relative change of the monetary mass and the problem of the study lies in measuring the extent of the impact of money supply on inflation rates and the study imposed that there is no impact of the money mass on the money supply and the aim of the study to know the evolution of the money supply during the study period and the study found that inflation is limited to the rise in the general level of prices.

3- Abdullah Ahmed Abdullah Abu Bakr-2011 (3)

This study dealt with the impact of the economic liberalization policy in Sudan on the high inflation rates as one of the most important expected economic effects, which may occur as a result of the implementation of this policy and the problem of the study lies in the question of the following Is the economic liberalization policies led to an increase in inflation rates during a period and the researcher used the descriptive analytical approach and the study imposed that the policy of economic liberalization led to an increase in inflation ratesThe model was built as follows INF=f(EI) INF=α+β∗EI+μThe study found a significant rise in rates, especially at the beginning of the application of the policy, and the study recommended the need to work to reduce inflation rates through appropriate policies and attract investment in and benefit from foreign and local investments in increasing production.

4- HowaydaKhaled – 2011 (4)

The study dealt with estimating the inflation function in Sudan, the study aimed to find out the causes and factors affecting inflation in Sudan in the period (2010-1990) quantitatively through a measurement model that works to estimate the inflation function, and in order to achieve this goal the following hypotheses were developed: The multiple regression formula is the appropriate and appropriate applied harsh formula for the study and estimation of the inflation modelIt also assumed the existence of an inverse relationship between inflation and GDP, and the existence of a direct relationship between inflation and both government spending, exchange rate and budget deficit, the researcher also used the historical approach of the theoretical framework and the methodology of metrical economics j of the applied framework and that data on inflation variables in Sudan during the study period can be formulated INF = F(GDP, MS, EXCH, BD, G): Riyadh model J is as followsIt is the budget deficit GDP and represents the money supply, represents the exchange rate and government spending and the study found that there is a significant impact of all variables of the study as well as the existence of an inverse relationship between inflation and GDP and recommended the need for a joint unit between the Bank of Sudan, the Central Bureau of Statistics and the Ministry of Finance in order to unify the estimation of statistics on economic activities.

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(2) YousfiRoqayya, Wedad and others - the policy of targeting inflation in Algeria - an econometric study - Nour Al-Bashir Al-Beidh University Center

(3) Abdullah Ahmed Abdullah Abu Bakr - the impact of economic liberalization policy on inflation rates - Master Thesis - Sudan University of Science and Technology - Khartoum - 2011.

(4) Howayda Khalid Mohammed Abbas - estimating the inflation function in Sudan Master's thesis - Sudan University of Science and Technology - Khartoum - 2011.

The first topic: the concept and emergence of inflation and the policy of targeting it

Inflation is defined as the state in which the economy is witnessing a continuous rise in the general level of prices of goods and services a clear and continuous rise for a certain period of time, as this phenomenon reflects an imbalance or pressures witnessed by the local economy.

First: The concept of targeting policy

It is defined as that monetary system that targets the inflation rate directly by determining the monetary policy that guarantees the target inflation rate and predicting the inflation rate in the future, as well as comparing the target rate with the expected rate, if the expected rate is higher than the target rate, a deflationary monetary policy is followed, and vice versa, if the target rate is higher than the expected rate, here an expansionary monetary policy is followed, and it was also known as a framework for adopting a monetary policy under restricted conditions as it depends on the rules It requires the central bank to commit to a consistent policy while leaving the central bank free to decide how to use its tools, which allows it some flexibility in countering unexpected domestic and external shocks The goal of monetary policy is to achieve a specific level of inflation rate during a certain period of time, so it is an important method for central banks in conducting their monetary policy, which highlights inflation as an intermediate target for these policies and achieving price stability in the long term, which is the ultimate goal as the central bank reaches the extent specified by the monetary authorities by changing interest rates, provided that they are given full independence in setting policies to avoid the resulting impact. One of the inflationary pressures on economic growth rates, this requires setting a specific range for short-term interest rates using the short-term real interest rate, where you do not care about the size of the money supply, which means price flexibility.

Second: The emergence of the inflation targeting policy

Since the beginning of the nineties, many countries of the world have adopted a new monetary policy in which monetary tools were used and aimed at achieving certain inflation rates that they seek to reach, then price rates were used to reach that goal, as this policy was based on the assumption that lending costs are inversely proportional to inflation rates, and on this basis, short-term lending costs are raised in case inflation rates exceed the desired goal, and if inflation rates decline, lending cost rates are reduced to reduce the possibility of slowdown. In the economy, where the first experiments were targeting inflation in New Zealand in 1990 - Canada in 1991 - the United Kingdom in 1992 - followed by a number of other countries such as Australia and Sweden in 1993 and others, as the achievement of these countries to low rates and stable inflation encouraged a number of developing countries to adopt this policy, namely Chile, Poland, Colombia, Korea, South Africa, Hungary, Iceland, Mexico and the Philippines...... There are several factors that helped in the emergence of this policy, including:

1- High inflation rates, which adversely affected the rate of economic growth and the allocation of economic resources.
2- The Central Bank determines the rate or range of inflation in a limited period to avoid the problem of conflicting targets.
3- The impact of monetary targeting on the inflation rate as a result of shocks to demand and aggregate supply.
4- The policy of targeting monetary groups poses the problem of the financial portfolio as a result of changes in short-term and long-term interest rates, which leads to a difference in the formation of large and narrow monetary groups in terms of size, which leads to the inflation of large aggregates.

Third: Conditions for the success of the inflation targeting policy

There are several basic pillars of monetary policy that seek to control the course of the general level of prices, including the fixed exchange rate index, where the value of the local currency is pegged to the currency of another country that enjoys low levels of inflation, but monetary policy in this case loses its independence and becomes subordinate to the monetary policy prevailing in the country of the peg currency, which shows its negative impact in the event that the cycles of workers in the two countries differ on it. Many countries have begun to shift towards adopting flexible exchange rates, which Pushing it to adopt another basis for monetary policy represented in targeting monetary groups as a means of controlling the general level of prices as well as this approach succeeds if the Central Bank is able to control the money supply well as announcing the targeting of inflation in developed countries by the Central Bank to be approved by the government after that and this is to upgrade the agreement between the decision makers in the two bodies, which increases the effectiveness and credibility of this framework of monetary policyIn developing countries, the matter requires the need to determine the target inflation rate by the government in coordination with the Central Bank to achieve increased support for monetary authorities in targeting inflation. The four basic and important conditions are the condition of the independence of the Central Bank, the condition of having a single goal which is to set a target rate for inflation within a specific period of time, the condition of the commitment of state institutions to the goal of price stability in the long term, and finally the condition of a stable relationship between monetary policy tools and the inflation rate, which It can be predicted in the future, and all this must be abundant in the target country so that the inflation targeting policy is more effective in its application.

Third: How to determine the target rate of inflation

The consumer price index is the most used in measuring the inflation rate instead of the GDP contractor for ease of use, and the time range to reach the announced targeting is determined, as several countries have identified low single figures, where the age of each time stage is affected by the flexibility of the prevailing monetary policy and its ability to face shocks in the short term, in addition to the flexibility of the Central Bank in applying the type of targeting system, either a strict system or a flexible system.

Fourth: Inflation Theories

Schools differed in the interpretation of inflation, the classical school indicates that prices are determined by the free interaction between supply and demand for goods and services, where the general level of prices is equal to the amount of money in circulation and some economic schools in the sixties of the last century, especially the monetary school or the Chicago school and the most famous of its example, Milto N. Friedman, where he considered that every change in the amount of money offered will leave its impact on the general level of prices, meaning that the monetary mass is an independent variable and that prices are a dependent variable and the relationship is affected Between them through the speed of turnover and the unit of cash, meaning that the essence of the matter depends on the relationship between government spending and gross product, but the Swedish school considered it the result of the imbalance between savings and investment, so the interest rate plays an important role in that, when the investment rate decreases, this leads to a decline in growth rates and thus a rise in the unemployment rateInflation occurs with recession or the so-called stagflation and one of the most important factors affecting it is the prevailing interest rate in the market, where Keynes sees it as a temporary phenomenon, so he distinguished between beneficial and harmful inflation and that increasing public spending will lead to an increase in aggregate demand and thus will stimulate investment and get a balance between the quantity of goods and the monetary mass There is also a structural school that considered that inflation is the result of economic imbalances such as increasing salaries without being accompanied by increased productivity Thus, the increase in disrupted production capacities also depends on the amount of increase that occurs in the output and income achieved from it due to monetary expansion on the speed at which price expectations are adjusted as a result of changing inflation conditions and that speed depends on several factors, including the nature of the composition of expectations for the different schools of inflation and can be deduced a number of factors that will affect inflation, including:

1- Money Supply:

As inflation means a rise in the prices of goods and services, i.e. the continuous decline in the value of money, as there is a conviction among economists in their analyses that non-imported internal inflation arises as a result of interactions between economic variables, including money, quantities of available money, especially paper money and bank accounts, as there is a constant relationship between several elements of production, the general level of prices, the amount of money available in the economy, and the speed of circulation or circulation of money, which means that the amount of money in An economy that is not harmful and in the speed of money circulation is equal to prices multiplied by the amount of goods and services and the increase in the amount of money has no effect on pricesIf it remains unspent, but if it turns into demand through the circulation of money for the purpose of spending it, it raises the general level of prices, when the rate of increase in the amount of money is higher than the rate of increase in goods and services, and government spending has a direct and indirect impact, as the direct impact comes from the increase in direct government demand for goods and services, or the indirect effect comes from the dependence of activities on each other.

2- Exchange Rate:

The exchange rate represents the conversion relationship between currencies and depends on the supply and demand relations between two currencies, meaning that the foreign exchange rate is the price of a currency unit with a currency unit corresponding to another country and is expressed in the national currency such as the Saudi riyal against the US dollar, as the foreign exchange rate expresses the amount of units of one of the two currencies that are exchanged for one unit of the other currency and there are two types of exchange rates The first type is the fixed exchange rate and is determined in the light of some foundations Which is determined by the official administration in the country to determine the fixed exchange rate, while the second type is the free exchange rate, and here the exchange rates of the national currency change against other currencies based on the relationship between supply and demand for currency in the foreign exchange market, and this change takes place freely.

3- Budget deficit:

There is no doubt that any government suffering from a budget deficit will resort at some time to financing this deficit by issuing money, which generates inflationary pressures, and in light of the ineffectiveness of the tax system, political instability and heavy dependence on inflationary tax, some developing countries have resorted to following a budget deficit policy to finance public spending on investment and the implementation of investment programs and projects.

4- Interest rate:

The Central Bank can control the interest rate by controlling the amount of money offered and thus at the level of economic activity, increasing the supply of money leads to a decrease in the interest rate, which leads to an increase in investment from the double and thus an increase in consumption, income and employment, as the opposite can happen and exchange rates affect indirectly, for example, when interest rates fall with the availability of investment opportunities, this leads to an increase in demand for capital in order to invest it, and investment is achieved and activated The national economy therefore improves the value of the national currency against other currencies while the rise in interest rates can lead to avoiding the tendency towards assumption by investors and this results in a decline in investment and a decline in economic growth, which leads to the opposite results of the strength of the national economy.

From the previous review of inflation theories and the most important factors that can affect it, it can be considered that inflation is affected by a number of factors, including the growth rate in the gross national product at constant prices, the rate of change in direct taxes, the rate of change in the money supply, government spending, the rate of change in the official exchange rate, the growth rate of the budget deficit and the interest rate.

The second topic: the policy of targeting inflation in the Kingdom of Saudi Arabia

First: Characteristics of the Saudi economy

The Kingdom has a strong economy and is one of the best economies of the countries of the Middle East, and the state always seeks in its development plans to diversify the economic base in order to reduce dependence on oil as a major resource in the national economy and has several features, including:

1- Saudi Arabia is the largest economic power in the Middle East as it is the world's largest oil exporter.
2- It has a large area and a large population of more than 27 million people and is the destination of Muslims and the focus of attention.
3- The state always supports the growth of the private sector.

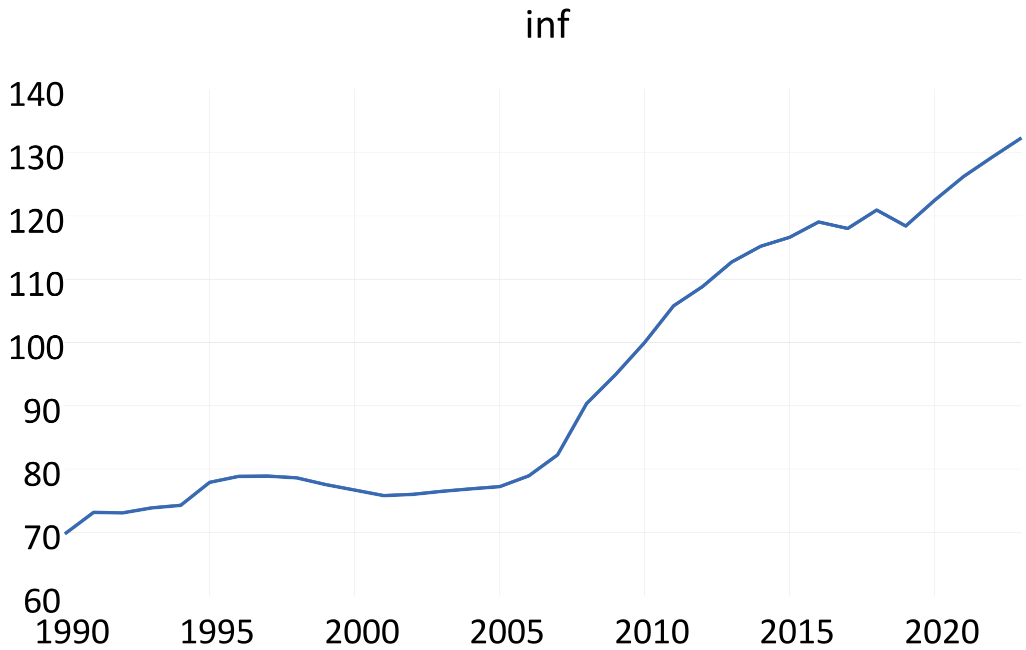
4- Providing job opportunities for Saudi youth by enhancing the contributions of the private sector and playing a key role in the economic development process.
5- Attracting foreign capital to support investment projects and promote the country as a distinctive destination for business tourism, exhibitions and conferences.
6- The Kingdom has the largest GDP growth rate in the Gulf region and the Middle East.
7- The Kingdom has the world's largest oil producer and exporter.
8- The Kingdom has a strong infrastructure in the fields of communications and transportation internationally and locally.
9- It has strong and specialized economic sectors.
10- The Kingdom is the world's largest spender on education.
11- It has a diversity of religious and recreational tourism that attracts all groups, keeps pace with modern development, and benefits from its natural resources in building world-class facilities that will support the tourism and travel sector.
12- It has economic and political weight and provides landmarks, facilities and facilities that attract and satisfy all visitors.
13- It has a strong engine in the national economy, which is the exhibitions and conferences sector, which strengthens its position as a business centre and has distinctive assets capable of attracting event organizers from new modern facilities and strong infrastructure.
14- It is strategically located that allowed it to form a network of extensive cultural relations and the expansion of trade exchange, which increased the growth of the economic sector, and it is one of the largest economies in the world and contains a quarter of the world's oil reserves.
15- The Kingdom is the largest free market in the Middle East and North Africa and is witnessing rapid growth.
16- Diversify the economic base with a focus on promising areas such as manufacturing, energy and its derivatives, mining, business tourism sector and information technology industry.

Second: Inflation in the Kingdom of Saudi Arabia

Since 1990, the Kingdom of Saudi Arabia has witnessed high inflation rates, and these rises have led to a change in the expansionary monetary policies that were followed and the shift to deflationary policies, imported inflation led to a rise in prices, especially when oil prices rose, which led to an increase in the share of foreign trade in the gross domestic product, which led to a significant rise in the prices of goods and services within the country, and here the Kingdom faced inflation by restricting monetary policy and raising the interest rate on the riyal and took the initiative to set a ceiling On the prices of some petroleum derivatives and fixing the price of gasoline in July 2021, which before that fluctuated around oil prices, and the social benefits system was also strengthened through additional support for social security beneficiaries, the citizen account program, and the program to support small livestock breeders, in addition to allocating support to increase strategic stocks of basic commodities and ensure their availability to face the repercussions of rising global pricesAccording to the International Monetary Fund's estimate, the Kingdom is one of the few countries that have been able to reduce inflation, as the measures taken by the government have led to limiting the rise in prices on the one hand and mitigating their impact on low-income people on the other hand, and this situation continued until today 2023 by applying the contractionary monetary policy, represented in raising the interest rate on the riyal, despite knowing the negatives of it, such as increasing the cost of financing on the private sector, which discourages entrepreneurs On borrowing As for the fiscal policy, it will be expansionary through increasing government spending on development projects, in addition to the policy of support for low-income people to mitigate the impact of high prices, and there are several reasons that led to the emergence of inflation in the Kingdom of Saudi Arabia:

1- High inflation in countries from which the Kingdom's imports constitute a large percentage of GDP, which leads to raising inflation rates locally through imported inflation.
2- The stability of the exchange rate system in the country, which means that any change in the exchange rate of the dollar leads to a change in the value of the riyal at the same rate.

Figure 1
Inflation rates in the Kingdom of Saudi Arabia 2020-1990



Third Theme: Estimating the Metric Model of Gap Determinants
Inflationary First: Determining the variables of the Standard Model:
Inflation in Saudi Arabia (INF) can be expressed as a function in the following independent variables: (GDP Non-oil GDP - MS Money Supply -X Exports -imp Imports)
Second: Expected signals of the features of the inflation function:

- The coefficient signal for the GDP rate is expected to be negative as the increase in the supply of goods and services leads to a lower general level of prices.
- The money supply rate coefficient signal is expected to be positive for the correlation between the increase in money supply and the rise in prices.
- It is expected that the signal of the import coefficient will be positive for the expelling of the relationship between it and inflation, as imports lead to an increase in the rate of imported inflation.
- It is expected that the signal of the export coefficient will be negative, as the high volume of exports leads to a rise in the rate of GDP in the national economy, which encourages more production and thus lower inflation rates.

1- Unit root test:

This test is concerned with examining the time series properties of the study variables, and the following are the results of the unit root test using the Cocky-Fuller composite test (ADF).

Table No (1) unit root Test (Trace)

variables	t-Statistic	5% level	Level
Inf	**3.496223**	**2.957110**	**The first difference**
Gdp	**5.963312**	**1.952066**	**The first difference**
Ms	**1.954545**	**1.951687**	**The first difference**
Imp	**4.766229**	**1.951687**	**The first difference**
X	**-5.569823**	**-2.957110**	**The first difference**

Source: Preparation of the researcher from the results of the estimate

Where it is clear from the table that all variables of the model are stable at the first difference and these results are consistent with the standard theory that assumes that most of the macroeconomic variables are non-static in the level but become static in the differences.

1- Co-integration test:

It is clear from the feasibility of the below to reject the hypothesis of nothingness that there is no vector for joint integration at the level of significance 5%, as the calculated value of the probability ratio (LR = None*) (90.13403) exceeds the critical value (69.81889) with a significant significance level of 5% as well as the calculated value) LR = At most *1 ((48.50737 (more than (47.85613) for Therefore, we reject the null assumption that there is no vector for joint integration, which means that there are two vectors for joint integration of the inflation targeting model, which means that there is an equilibrium relationship Long-term, which means they don't stray so far apart that they exhibit similar behavior.

Table No (2) Cointegration Rank Test (Trace)

Hypothesized	Eigenvalue	Max-Eigen	Critical Value
None *	0.727695	90.13403	69.81889
At most 1 *	0.578395	48.50737	47.85613
At most 2	0.349863	20.86942	29.79707
At most 3	0.175091	7.091103	15.49471
At most 4	0.028694	0.931655	3.841465

Source: Preparation of the researcher from the results of the estimate

2- Estimating the error correction model:

After confirming the time series of the study model variables and then verifying that they are all jointly integrated, it becomes clear that there is a long-term equilibrium relationship between the model variables and after estimating the model, the results shown in the following table were reached:

Table (3)

D (INF) = B0 + B1MS + B2GDP (−2) + B3 IMP + B4X + U

Variable	Coefficient	t-Statistic	Prob
INF(-)1	0.816834	9.820937	0.0000
MS	-1.10E-11	-2.301937	0.0307
GDP(-)2	4.90E-12	2.543829	0.0181
GDP(-)3	4.22E-12	2.180097	0.0397
IMP	-0.132667	-1.540335	0.1371
IMP(-)1	0.120512	1.799943	0.0850
X	0.069564	3.550063	0.0017
C	10.59613	1.928355	0.0662

R-squared	0.99539	6
Adjusted R-squared	0.99399	4
F-statistic	710.307	4
Prob(F-statistic)	0.00000	0
Durbin-Watson test	1.74596	1
CointEq(-1*)	-0.18316 Prob= 0.0	6 00

Source: Preparation of the researcher from the results of the estimate

It is clear through the estimation results shown in the table the soundness of the model statistically, where all the variables of the estimated model appear with significant significance except for the import variable (imp), where their significance has not been proven, and the reference to both the money supply and GDP in the two periods, exports and the import coefficient signal are all incompatible with the economic theory, except for the import variable coefficient in the first period, which corresponds to the economic theory, and where the value of the error correction coefficient (0183.-) indicates that inflation targeting rates It adjusts towards its equilibrium value at each relative time period from the remaining imbalance of the period (1-t) equivalent to (18%) and another reason that inflation rates correct the imbalance of their remaining equilibrium values from each past period by about (18%)That is, when inflation rates deviate during the short term in the period (1-t) from their equilibrium value in the long term, the equivalent of (18%) of this deviation or imbalance is corrected during the period (t) and this percentage reflects a very high adjustment speed towards equilibrium in the sense that inflation rates take a year and a month (1/018). towards their equilibrium values after the impact of any shock in the model as a result of the change in their determinants.

3- Diagnostic tests:

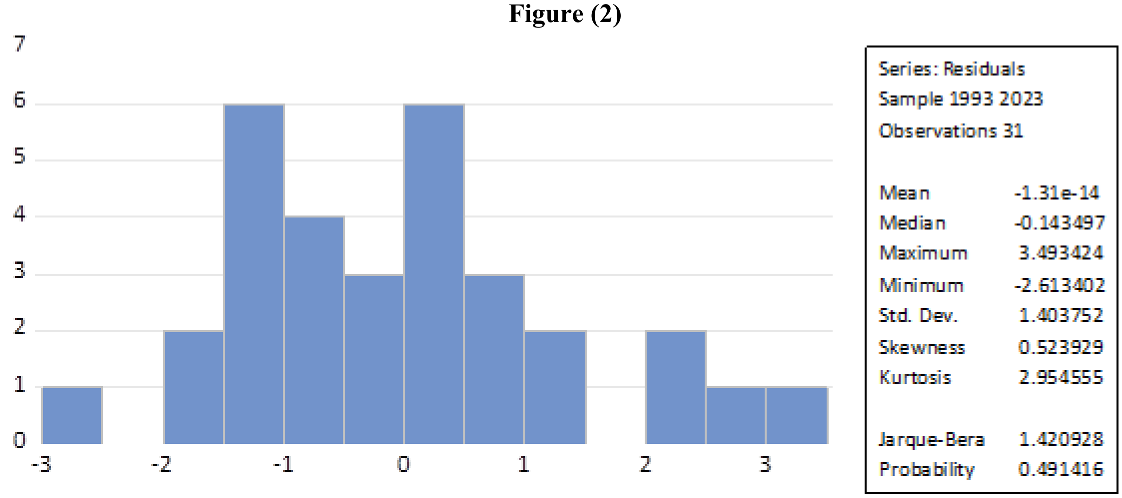
To ensure that the model is free of standard problems, the Jarque-Ber test was used to ensure the condition of the normal distribution of the remainders, as well as the Arch Test was used to ensure that there was no problem of variance difference, and the results of the estimate showed that the estimated model had exceeded all the statistics of the residual examination, and therefore it was ensured that the error correction model was free of standard problems.

Table (4)

Statistic	Estimate Value	P. Value	
F-Bounds Test	9.704858	2.56	3.49
Normality (Jarque – Bera)	.1420928	0.491416	
Breusch-Godfrey F-statistic	1.958037	.03757	
ARCH - F-statistic	0.619255	.04313	

Source: Preparation of the researcher from the results of the estimate

Figure (2)



Third: Results

The policy of targeting inflation means the existence of a natural rate of inflation that cannot be exceeded, so exceeding it requires combating it using specific mechanisms, so an independent comprehensive financial and monetary policy must be taken in its proper sense parallel to a comprehensive economic stability program that takes into account financial reform to strengthen monetary policy, with the reform of all institutions related to this The study reached a number of results, including:

1- The joint integration test proved the existence of two vectors for the joint integration of the inflation targeting model and its determinants represented in (GDP - Presentation Money - imports - exports).
2- A high adjustment speed for inflation determinants reached (18%), that is, when any shock occurs, it takes a year and a month towards its equilibrium value.
3- The integrity of the model statistically, as all variables of the estimated model are significant except for the import variable (imp).
4- The model is free of standard problems.
5- The determinants of the inflationary gap tend to balance in the long term.
6- All model variables are stable at the first difference and these results are consistent with the standard theory.

Recommendations

1- The need to rationalize the consumption behavior of members of society.
2- Develop savings policies to rationalize consumption and thus control the money supply.
3- Control the volume of cash flow by setting strict requirements for granting loans.
4- Benefiting from the experiences of developed and emerging countries and identifying the strengths and weaknesses when applying the inflation targeting policy.

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