

The inflation gap and its reflection on the performance of monetary and fiscal policies in Iraq for the period (2004-2020) *

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Abstract

The inflation gap in the economy is often detected by specialists in economic policies by measuring the potential output gap in order to measure inflation in that economy, and knowing that the level of GDP is consistent with no pressure to raise or lower prices. In this context, Whenever there is an unsustainable large production volume that leads to inflationary pressures, and when the volume of production is less than what was planned, there will be stagnation and a decrease in prices and thus the absence of inflation, so the output gap is a brief indicator of the relative supply and demand elements in economic activity. Output measures the degree of inflationary pressures in the economy.

Keywords: Inflation, inflationary gap, Iraq.

المستخلص

غالبا ما يتم كشف فجوة التضخم في الإقتصاد من قبل المختصين في السياسات الإقتصادية من خلال قياس فجوة الناتج المحتمل وذلك من أجل قياس التضخم في ذلك الإقتصاد، ومعرفة بأن مستوى الناتج المحلي الإجمالي متسق مع عدم وجود ضغوط لرفع الأسعار أو خفضها وفي هذا السياق، فكلما كان هناك حجم انتاج كبير غير محتمل يؤدي لضغوط تضخمية وعندما يكون حجم الإنتاج دون ما مخطط له ستكون هناك ركود وانخفاض في الأسعار وبالتالي عدم وجود تضخم، لذلك تكون فجوة الناتج مؤشرا موجزا لعناصر العرض والطلب النسبية في النشاط الاقتصادي، وعلى هذا النحو، فإن فجوة الناتج تقيس درجة الضغوط التضخمية في الإقتصاد.

الكلمات المفتاحية: التضخم , الفجوة التضخمية , العراق.

Introduction

Every country regardless of the nature of its economic system and the extent of its progress or backwardness in growth. It suffers from a certain degree of economic problems. It seeks to address this

* The research is extracted from a PhD thesis of the first researcher

problem according to its nature. Among the important economic problems that have serious repercussions on the general economy of the state is the problem of economic gaps, including the inflation gap and the relationship between it and the performance of monetary and financial policies in Iraq. We will show that gap and the relationship with the monetary and fiscal policies in the economy. Just as the domestic product can increase or decrease. The inflation gap can also go in two directions: the positive trend and the negative trend, both of which are undesirable and are considered a deviation from the hoped-for goal. A positive inflation gap occurs when the actual output is higher than the output of the economy estimated at full capacity and this occurs when aggregate demand is very high, either The negative inflation gap is when the actual output is less than what the economy in question can produce at its full capacity. The negative output gap means that there is excess capacity, or slack. In the economy as a result of weak, demand. A gap indicates that the economy is operating at an inefficient rate - that is, it is either overusing or underutilizing its resources.

Research problem

The research problem can be identified through the following question, which is whether Iraq suffers from an inflationary gap in the economy, and does it have a reflection on the performance of monetary and financial policy in it.

Research Hypothesis

The study assumes that Iraq suffers from the problem of an inflationary gap, and it also has a negative impact on the performance of the monetary and financial policies in it as a result of the imbalance it causes in the Iraqi economy.

research importance

The importance of the research comes from the importance of the topic it deals with, if the research shows the relationship between the inflation gap and its reflection on the performance of monetary and financial policies, because the seriousness of that gap lies in that it has negative economic and social effects on the Iraqi economy, and contributes directly to the events of unrest and general imbalance in Economy.

research aims

The objectives of the research can be summarized in a set of points that we can mention as follows:

1. Clarify the inflation gap in Iraq and the nature of its formation and causes.
2. Show the reciprocal relationship between the inflation gap and the monetary and financial policies in the Iraqi economy.
3. Analyzing the mechanism of action of monetary and financial policies and ways to address problems in the Iraqi economy.

Previous studies

Previous studies did not address a subject similar to the subject of our study, but there are some studies that dealt with the issue of economic gaps, which take some variables and the relationship between those gaps and their impact on the performance of monetary and fiscal policy for the sample countries.

1. The study of Magdy Abdel-Hadi 2022 entitled (The Triple Deficit..Trade, Financial and Monetary Gaps in a Rentier Economy continued: Egypt as a Model). The study starts with a theoretical and historical analytical approach and then taken the tools of standard analysis for the study, focusing on the main frameworks without sub-frames, and the study reached to The economic underdevelopment was a main feature in the Egyptian economy in creating these gaps, in addition to a group of other economic problems, including the dominance of commercial capital and public speculation. The Egyptian economy.

2. Study of Dr. Mohamed Ismail and Dr. Habid Abdel Moneim 2018 entitled (*The Role of Economic Reforms in Supporting Growth in the Arab Countries*), a study adopted by the Arab Monetary Fund. Packages of structural and institutional reforms in the country with the aim of promoting economic activity and eliminating those economic imbalances and gaps that impede the ability of these countries to achieve comprehensive and sustainable economic growth for them.

The first topic

The concept of the inflationary gap and monetary and fiscal policy

The first requirement: the concept of the inflationary gap.

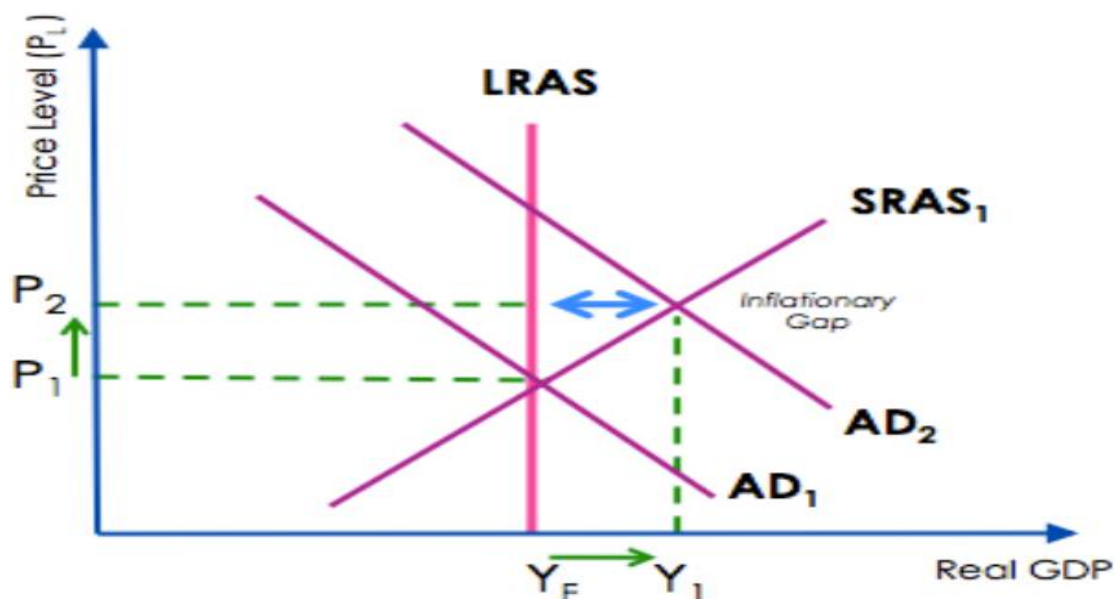
The inflationary gap is the difference between the size of the current gross domestic product and the size of the real GDP. For the first time, the famous economist Keynes was interested in it in his analytical studies of the economic reality in Britain and European countries¹. This criterion was adopted as a basis for knowing the size of the inflationary gap that the economy suffers from. The inflationary gap appears when the demand for goods and services exceeds the volume of production supplied due to various factors such as high levels of total employment, increased commercial activities or an increase in the volume of government spending, and this leads to an inflationary gap². The inflationary gap is so named because the relative increase in GDP leads to an increase in the volume of consumption in the economy, which leads to higher prices in the long run. Goods and services will not increase in the volume of production supplied, prices will rise to restore market equilibrium. Figure (1) shows that the inflationary gap appears when the level of aggregate demand in the economy rises from (AD1) to (AD2) higher than the growth rates of real output (YF) due to a miscalculation of monetary and fiscal policy that did not follow plans and did not appreciate the economic forecast in a way Accurate as a result of not using economic tools to address this inflationary gap that caused the price rate to rise from (P1) to (P2) and therefore this gap is addressed by correcting the course of monetary and fiscal policy and restoring the equilibrium situation in a new way, which is affected by the short and long term, as The inflationary gap is affected by the change of factors that affect the shift of the aggregate supply curve to a new level or the shift of the demand curve on the same supply curve as shown in the aforementioned figure. The mechanism for addressing this gap will be detailed through monetary and fiscal policies in the economy.

shape (1)

The inflationary gap in the economy

1 . Mustafa Rushdi Shiha, *The Economics of Money, Banks and Money*, University Knowledge House, Alexandria, 6th edition, 1996. p. 809.

2 . Alan A. Rabin, *Monetary Theory*, E. Elgar, SECOND EDITION, 2013, P173



Source: Harry G. Johnson, *Macroeconomics and Monetary Theory*, Rutledge, 2017, P 79.

The second requirement: the concept and objectives of monetary policy

First, the concept of monetary policy

In most countries around the world, the central bank is the main center for planning and implementing the monetary policy that the government deems appropriate in achieving certain economic goals. Regardless of the variables that monetary policy chooses as a means to achieve the desired economic goals, the impact of this policy is often focused on the level of economic activity, the level of employment and unemployment rates, the inflation rate, the foreign exchange rates of the national currency³, or the balance of payments . We can summarize monetary policy with a brief phrase that explains the mechanism of action of this policy: “Monetary policy means, in one way or another, regulating the quantity supplied of money.” It depends on a set of monetary policy variables, and the real national income, and the general level of prices, are the most important monetary policy variables. As monetary policy works to influence spending and aggregate demand, through the change it causes in the interest rate. And how is all this reflected in the end in the form of a change in the level of the overall economic equilibrium. The mechanism of this change, which begins with the interest rate in the money market, and ends with the change in the equilibrium level of both real income and the general level of prices.

Second: the objectives of monetary policy

Monetary policy has many economic, social and other objectives, and we can summarize the most important of these objectives as follows:

1. Stabilization of prices

Monetary policy targets the surplus money supply to the extent that controls the rate of change in the unit share of the quantity of money in an effort to maintain price stability, and

3. Walid Al-Ayeb, and Lahlou Moussa Bukhari, *Economics of Banks and Banking Techniques*, 1st Edition, Hussein Al-Asriya Library, Beirut 2013, p. 101.

this is a matter of great importance in combating inflation, as this goal is limited to working to combat large changes in the price level due to the dangers resulting from it⁴.

2. Achieving full use

Economists agree that achieving a high level of employment is among the basic objectives pursued by monetary policy, through the monetary authorities to stabilize economic activity at the highest possible level of employment of natural and human resources, by taking all measures to avoid the economy from unemployment problems. By increasing the volume of aggregate demand to the level necessary for the operation of economic resources

3. Achieving appropriate economic growth rates

In order for economic growth to occur, this income must increase at a faster rate than the population increase. It highlights the role of monetary policy in encouraging economic growth through its impact on investment as one of its most important determinants, as this policy changes the cash reserves in commercial banks through their well-known tools (the open market Legal reserve, discount rate) by changing the money supply that leads to corresponding changes in the interest rate, which in turn determines the volume of private investment.

4. Stabilization of the balance of payments

Monetary policy is used to achieve external balance by maintaining sufficient foreign cash balances to face fluctuations in the balance of payments on the one hand and to meet the requirements of economic development on the other hand. Domestic and foreign prices of goods and services to allow for a balance between exports and imports, as the deficits in the balance of payments countries offer the local currency in the financial markets for the purpose of obtaining foreign currencies, which leads to a decline in the price of the currency of this country, the multiplicity of objectives of monetary policy may lead to The collision between those goals when applying to develop appropriate solutions to economic fluctuations, monetary policies that aim to stop inflation and achieve price stability may unintentionally lead to harmful results on full use⁵, and Friedman called (Milton Freidman) to use the monetary base that includes the establishment of the central bank by expanding the money supply at a constant rate suitable for economic growth and believes that monetary policy is ineffective in the short term This must be linked to the requirements of the long run, that is, the money supply in general increases at a rate equal to the rate of growth in national product.

The third requirement: the concept and objectives of fiscal policy

First: the concept of fiscal policy

Fiscal policy occupies an important position among other economic policies, because it can achieve the multiple goals that the national economy seeks to achieve, relying on its

4 . See: Bassem Abdel-Hadi Hassan, *the monetary effects of fiscal policy in Iraq after 2003*, 1st edition, House of Cultural Affairs, Baghdad, 2018, p. 82.

5 . Abdul-Hussein Jalil Abdul-Hassan Al-Ghalbi, *the exchange rate and its management in light of economic shocks*, Edition 1, Dar Safaa, Amman, 2011, pp. 106-107.

multiple tools that it can adapt to affect all economic and social aspects of society, as fiscal policy means a set of procedures related to revenues Public and public expenditures for the purpose of achieving its objectives, and it is defined as part of the government's policy related to achieving state revenues through taxes and other means by deciding the level and pattern of spending these revenues. Such as national product, employment, savings, investment (), in order to achieve the desired effects and avoid undesirable effects on both the national income, the national product, the level of employment and other economic variables, as it is a set of goals, directions, procedures and activities that it adopts The state has to influence the national economy and society in order to maintain its general stability and development and to address its problems Facing all changing circumstances.

Second: the objectives of the fiscal policy

Fiscal policy, like other policies, has several objectives that it seeks to achieve, including:

1. *Achieving financial balance: It means using state resources in the best way, such as using loans for productive purposes, and that the tax system should be characterized by the characteristics that make it fit the needs of the public treasury.*
2. *Achieving economic balance: The meaning of economic balance is to reach the optimum volume of production, and therefore the government must balance the activity of the private sector and the public sector together to reach the maximum possible production⁶.*
3. *Achieving social balance: This means that society reaches the highest possible level of welfare for its members within the limits of its capabilities. Fiscal policy should not stop at the limit of increasing production, but rather this goal should be associated with the equitable distribution of national income among the members of society.*
4. *Achieving general balance: It is the balance between the total total expenditure (individuals' expenditures for consumption and investment, in addition to government expenditures) and the total national product. To achieve this goal, the government uses the tools of this policy, including: taxes, loans, subsidies, exemptions and participation with Individuals in the formation of projects and others.*

Third: Types of fiscal policy and its effectiveness

The effectiveness of fiscal policy is manifested through its role in achieving balance and macroeconomic stability, and that in the face of economic crises. In this context, a distinction is made between two main fiscal policies, the first is expansionary fiscal policy and the second is restrictive or deflationary fiscal policy, which are used to confront the problems of stagnation and inflation, respectively. The mechanisms of action of these two policies can be explained as follows⁷:

1. *The expansionary fiscal policy. This policy is implemented through:*
 - a. *Reducing taxes and fees in terms of rate and or scope, which reduces costs and thus reduces pressure on prices. In addition, reducing taxes will increase the average per*

6 . Eugene A. Dell'Oglio, *Macroeconomic Theory, Shum Abstracts Series, Second Arabic Edition*, McGrawhill Publishing House, 1994, p. 38.

7 . Qahtan Al-Seyoufi, *Financial Policy in Syria (publications of the Syrian General Book Organization, Ministry of Culture, Damascus 2008, p. 15.*

- capita disposable income, which encourages an increase in private consumption and investment spending, which stimulates economic activity in general.*
- B. Increasing government spending, which directly contributes to raising aggregate demand and guarantees certain standards of living for the unemployed and those with low incomes.*
- 2. Contractionary (restrictive) fiscal policy, and this policy is implemented in the following ways:*
- a. Increasing taxes and fees, which increases the costs of goods and thus increases prices. The increase in taxes will reduce disposable income in addition to increasing other government resources, thus contributing to reducing the overall demand for goods and services.*
 - B. Reducing the government agreement to provide the widest scope for private consumption and investment expenditures, to push the unemployed to accept job opportunities and to directly reduce aggregate demand.*

The second topic

Analysis of the inflation gap in the Iraqi economy and its relationship to monetary and financial policy

The first requirement. Analyzing the size of the inflation gap in the Iraqi economy

The inflation gap in Iraq is analyzed by finding the difference between the size of the nominal GDP and the size of the real GDP ⁸, as shown in Table (1) and Figure (2). We note through them that there is fluctuation in the size of the inflationary gap and it is affected by the external conditions that Iraq is exposed to as It fluctuates between decline and rise as a result, when the inflationary gap reached (-48610) million dinars in 2004 and remained at a negative amount with a slight decline until it reached (-14255) million dinars in 2006, but in 2008 the inflationary gap began to rise in a positive degree, as it reached 36400 million Then it decreased to 5941 million in 2009 as a result of the impact of the global financial crisis on the Iraqi economy. It also continued with this fluctuation with changes from year to year as a result of changing oil prices and changing the volume of spending and the nature and quantity of consumption, as we note that the volume of consumption is increasing year after year, which leads to higher prices. The inflationary gap tended to rise dramatically to 29378 million dinars in 2010 and then rose to 96102 million dinars. Fire in 2013 and then decreased to 25,825 million dinars in 2015, which is not primarily the result of fiscal or monetary policy, but rather as a result of what Iraq went through in terms of terrorist events that led to a decline in the inflationary gap, as well as in 2016 and 2017, while in 2018 and 2019, the inflationary gap increased to 40533 million dinars and then decreased slightly the following year to reach 39837 million dinars, while the inflationary gap in 2020 increased significantly to 65113 million dinars as a result of a change in the exchange rate as well as the external conditions represented by the impact of the Corona pandemic and its reflection on the inflationary gap.

⁸. See: Hoshyar Maarouf, *Macroeconomic Analysis, 1st Edition, Dar Safaa, Amman, 2005, p. 268.*

Table(1)

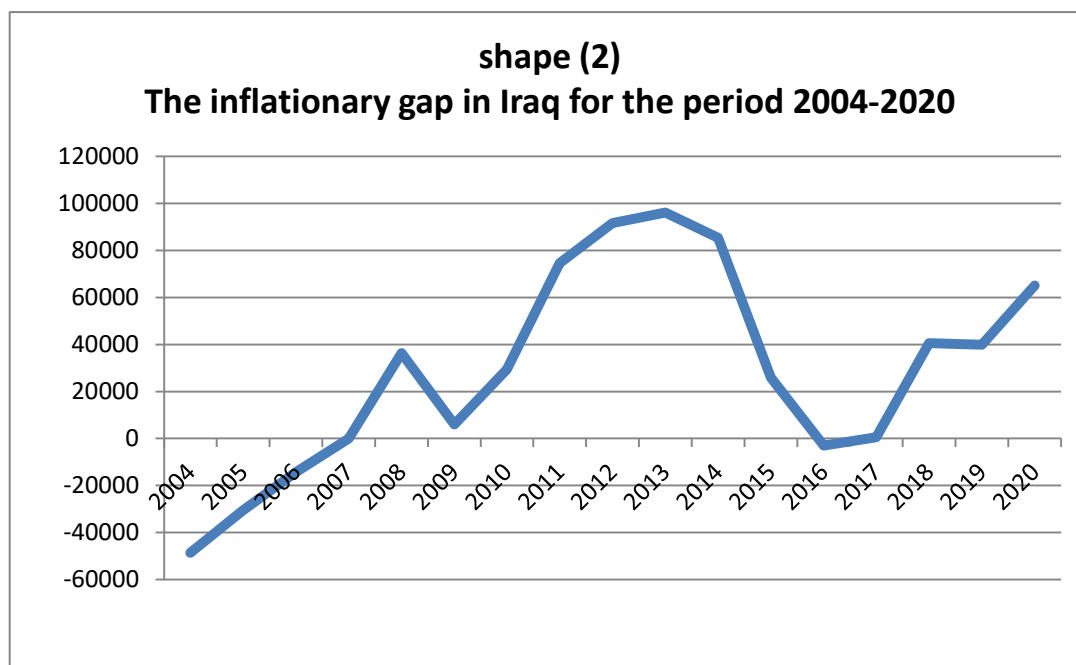
The inflation gap in the Iraqi economy for the period 2004-2020

(value in million dinars)

| details year | The inflationary gap million Iraqi dinars |
|-------------------------|--|
| 2004 | -48610 |
| 2005 | -30439 |
| 2006 | -14255 |
| 2007 | 0 |
| 2008 | 36400 |
| 2009 | 5941 |
| 2010 | 29378 |
| 2011 | 74627 |
| 2012 | 91638 |
| 2013 | 96102 |
| 2014 | 85275 |
| 2015 | 25825 |
| 2016 | -2940 |
| 2017 | 523 |
| 2018 | 40533 |

| | |
|------|-------|
| 2019 | 39837 |
| 2020 | 65113 |

Source: Ministry of Planning, Central Agency for Statistics and Information Technology, Directorate of National Accounts, statistical totals and reports for different years for the period 2004-2020.



Source: The table prepared by the researcher based on the data of Table No. (1)

The second requirement. Analyzing the relationship between the inflation gap and monetary and fiscal policies

first. The inflation gap and monetary policy measures in Iraq

It is natural that the growth in the gross domestic product will lead to inflation, because it will allow the government to increase investment and current expenditures to meet the requirements of development and welfare, which it aspires to achieve by providing health and educational services, providing water, basic infrastructure, transportation and communication methods, etc., in addition to luxury expenditures. Which is carried out by the government as a result of the improvement of its economic situation, which generates an increasing demand for goods, services and manpower⁹, high operating costs and providing their requirements with higher wages, as a result of the lack of diversification of the Iraqi economy and the lack of contribution of other sectors in the formation of the size of the gross domestic product, and thus leads to an increase in the size of the monetary mass. The market is higher than the available goods and services, and as a result, it will cause inflationary pressures in the economy, which will raise costs again faster due to the depreciation of the currency in the market. Therefore, the government, through the Central Bank of Iraq, resorts to applying its monetary policy to control these inflationary pressures through the use of monetary tools. Direct and indirect, which are characterized by strictness, including:

9 . Mazhar Muhammad Salih, *Monetary Policy in Iraq*, 1st Edition, Baghdad, House of Wisdom, 2012, p. 110.

1. *Raising the interest rate on loans, for the purpose of reducing the amount of borrowing.*
2. *Entering as a seller in the open market, where the Central Bank sells securities of all kinds, especially government bonds, as individuals buy them, which leads to a decrease in the size of the monetary mass.*
3. *Changing the legal reserve ratio on deposits, which is one of the most important tools used by the Central Bank to influence the ability of banks to lend.*
4. *Changing the bank rate or the discount rate, which also represents the interest rate that the Central Bank charges from commercial banks in return for providing loans to them. In cases of inflation, the central bank works to reduce the quantity supplied of money by raising its price, and this would raise the interest rate charged by commercial banks from borrowers, which leads to a decrease in investment demand and thus overall spending¹⁰.*
5. *The policy of education and guidance followed by the Central Bank for individuals and banks to reduce and rationalize spending, import, consumption and everything that would lead to an increase in the demand for cash in order to address inflation in the economy.*

secondly. The inflation gap and fiscal policy measures in Iraq

The inflation gap in the Iraqi economy is addressed by the fiscal policy in balance with the aforementioned monetary policy measures, and the Ministry of Finance applies the fiscal policy to address the problem of inflation in the economy, according to which the sources of revenue and their uses and the budget surplus are determined, and this policy works to reduce the volume of available liquidity in order to contribute to Reducing the rate of inflation and this is done through some measures, namely:

1. *The Ministry of Finance sells the volume of public debt to the public and thus withdraws the cash available in the market and this leads to a reduction in the money supply.*
2. *Increasing taxes on luxury goods that are traded by a minority of the population with high incomes and which are characterized by high or exaggerated prices.¹¹*
3. *Reducing government spending, as government spending is one of the most important reasons for increasing cash circulating in the market, and therefore limiting and reducing this spending will lead to a reduction in cash circulating among individuals in the market.*

The financial policy measures carried out by the Ministry of Finance in Iraq are limited to the above, and there are pressures and procedures that prevent the rapid implementation of these policies, and then there is slow implementation as they require approvals and the formation of committees and others. It may also need to legislate laws from the Iraqi parliament and others, as well as Convinced that there is an inflationary gap that requires measures from the government to address, so monetary policy measures are relied upon as

10 . Ali Muhammad Shalhoub, *Money and Banking Affairs*, 1st Edition, Syria, Shuaa Publishing and Science House, 2007, p. 131.

11 . Bassem Abdel Hadi Hassan, a previously mentioned source, p. 65.

they are faster and within the powers of the Central Bank to control the imbalance in the value of the Iraqi dinar¹².

The third topic

Conclusions and Recommendations

The researcher reached a set of conclusions and recommendations, the most important of which are the following:

First: the conclusions

- 1. The inflation gap is determined by the difference between the size of the nominal GDP and the size of the real GDP.*
- 2. The growth in GDP will lead to inflation, because it will allow the government to increase investment and current expenditures to meet the development requirements by providing health and educational services, water and basic infrastructure.*
- 3. The government, through the Central Bank of Iraq, resorts to applying its monetary policy to control these inflationary pressures through the use of direct and indirect monetary tools, which are characterized by strictness.*
- 4. The inflation gap in the Iraqi economy is addressed by the fiscal policy in balance with the monetary policy measures. The Ministry of Finance applies the fiscal policy to address the problem of inflation in the economy, according to which the sources of revenue and their uses and the budget surplus are determined, and this policy works to reduce the volume of available liquidity*

secondly. recommendations.

- 1. It is necessary that there be diversification in the Iraqi economy in order for the gross domestic product to be more stable and less vulnerable to economic shocks.*
- 2. It is important that the monetary and financial policies in Iraq work in a balanced manner in order to address the economic problems arising in the Iraqi economy.*
- 3. The necessity of reducing the inflation gap through coordination between monetary and fiscal policy in Iraq.*
- 4. The Central Bank and the Ministry of Finance must address the economic problems, whether it is inflation, deflation, unemployment or other problems in a scientific and balanced manner, and that the procedures are fast and courteous for the purpose of achieving the goals directly.*

12 . Abdul-Karim Al-Mashhadani and Bassem Abdul-Hadi Hassan, The financial dimension in the evolution of money supply in Iraq after 2003, Baghdad, research published in the House of Wisdom magazine, No. 37, 2017, pp. 66 and 68.

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