اثر الميزان التجاري على تكوين الاحتياطات الاجنبية في البنك المركزي العراقي

The Impact of the Trading Balance on the formation of Foreign Reserves at the Central Bank of Iraq

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المستخلص

تعد الاحتياطيات الدولية من القضايا المهمة في الآونة الأخيرة وخاصة في الاقتصاد العراقي اذا يعد من الأدوات الرئيسية لحماية الاقتصاد الوطني من الصدمات والأزمات الاقتصادية التي قد يتعرض لها البلد ،وطالما ان الاقتصاد العراقي اقتصادا ربعيا ،اعتمد على الصادرات النفطية بشكل كبير فان ذلك أدى الى ارتباط حجم الاحتياطي الأجنبي بالإيرادات النفطية بنسبة كبيرة ومن ثم بالميزان التجاري وميزان المدفوعات ..وذلك يستدعي إدارة حكيمة للإيرادات المتحققة باتجاه تحقيق اهداف التنمية بشكل سليم

Abstract

International reserves are considered as one of the crucial issues nowadays especially in the Iraqi economy. It is counted among the essential tools for protecting the national economy from shocks and economic crises the nation may face. Since the Iraqi economy is rentier, which depended mainly on oil export, this led to the correlation of the foreign financial reserves with the oil revenues, and then with the commercial and the payments scale. This requires a wise administration of the obtained revenues towards properly fulfilling the development objectives.

Introduction

The importance of international reserves may be noticed as an important investment tool that affects the country's economic stationary, protects it from internal and external crises, and provides a suitable atmosphere for investors through their direct influence on the stationary of exchange rates. It is necessary to say that keeping an ideal amount of these reserves is very important for facing these shocks, fulfilling profitability and providing the needed currency. Accordingly, this subject seems to be of great necessity mainly in the studies of International Economic institutes. Fulfilling certain specific aims requires an identified level of international reserves that suits the nature of the economic system. To add more, the resources of these reserves differ from one country to another according to the degree of economic growth

of each country and the share of the economic sectors in the product of the country. The resources of these reserves vary in the advanced countries whereas in the developing countries, on the other hand, these reserves are restricted to one resource, i.e., oil. This applies to the Iraqi Economy whose greatest part of reserves is dependent on oil revenues, a matter that makes this resource vulnerable to external shocks and world oil price fluctuations.

Research Problem

Iraqi Economy is described as being a rentier economy which mainly depends on oil revenues and creating international reserves. As a result, this will make the country vulnerable to external crises and shocks and create imbalances and financial problems that will destabilize its economic stationary.

Research Importance

International reserves have a great role in keeping the economy stationary. As a result, the variety of the resources of these reserves is an urgent necessity to minimize the negative effects on the national economy whether in the developing countries in general or in Iraq, in particular.

Research Hypothesis

The rentier of the Iraqi Economy led to a correlation between the trading scale of the country with the size of the international reserves and the ability to closely configure and accumulate them.

Research Objectives

The present research aims to clarify the most important concepts related to international reserves and their resources and development in the Iraqi Economy. It also aims to shed light on the relationship between the payments scale in general and the trading scale in particular with the size of the international reserves in Iraq.

Research Design

The research included three sections. The first one tackled the theoretical part of some concepts and issues related to international reserves. The next one dealt with analyzing the relationship between the payment scale and its impact on the size of international reserves. The last section was devoted to studying the development of foreign financial reserves in Iraq and studying its relation to the trading scale as one of the influential factors in its size. Also, there are some conclusions and recommendations.

Part One/Theoretical Framework of International Reserve Concept

1.1. International reserves: Concept and Resources

The International reserve is defined as the external assets that are available to and controlled by the monetary authorities to finance and regulate payment

imbalances to influence the currency exchange rate through intervention in the exchange markets [1]. It can also be defined as the assets that exist and are subject to the control of the monetary authorities for the balance of payments and other purposes. To add more, they differ from central bank deposits, as they are represented by assets used to support the liabilities of the central bank [2]. International reserves can be defined as bonds and deposits in foreign currency and special drawing rights let alone gold reserves and are managed by the monetary authorities to achieve certain goals, such as enhancing confidence in monetary management, including supporting the national currency and enhancing the currency from the foreign one to reduce the impact of the external shocks during crises in addition to maintaining an acceptable reserve to face disasters which the country may be exposed to [3]. The authorities maintain foreign currency reserves, especially for the countries that have a fixed exchange rate, or the exchange rate linked to a particular currency or a basket of currencies, to be able to intervene in the foreign exchange market and ensure that the exchange rate is within its target limits. This is performed via the central banks which are buying and selling currency reserves to support their value. This is linked to the proper management of these reserves as they increase the overall capacity for facing shocks in the country concerned, especially if policymakers are aware of developments in financial markets and potential threats. Depending on the experiences of several countries, it was found that weak reserves management practices led to a weak response to financial crises, a matter that later caused an increase in the severity of the crises and those countries incurring exorbitant costs, whether financial or moral, related to reputation. This is specifically related to the appropriate policies for portfolio management associated with the currency group the accurate choice of tools and investment and the necessary period that reflects the circumstances of each country and its capabilities in terms of policies to support confidence in the markets and protect assets. All this occurs in case the appropriate financial and monetary policies are available as well as the suitability of the exchange rate policy [4]. In summary, international reserves are external assets that are available under the control of the monetary authority represented by the Central Bank, which is used to achieve economic stability by confronting imbalances directly, such as the imbalance of payments, or indirectly through adjusting the exchange rate, let alone increasing the confidence in the local currency. [6] As for the most important sources of these reserves, the balance (or scale) of payments is the main source for the

accumulation of international reserves in any country, as the surplus achieved is usually formed in the two main accounts of the balance, which are: [7]

1-Current Account: Some economies achieve a surplus in the current account which arises from the surplus achieved in the trade balance, whether it stems from the rentier nature of the economy, especially oil rents, or it was the result of the strength of the economy and its resultant high exporting ability in the light of the availability of competitiveness. Workers' remittances, grants, aids and services income are considered as additional sources for accumulating the international reserves within the current account of the payments- balance.

2-The Capital and Financial Account: Other economies fulfil a surplus in the capital and financial account. Thus, this account is regarded as an important source of reserve accumulation. Accordingly, the international reserves arise in this case throughout the external loans flow or because of the flow of direct foreign investments or speculation in the financial markets and exchange markets (which are indirect). The flow of foreign loans, foreign direct investments, and capital that look for a difference in interest rates and quick profit have a positive influence on international reserves in the short term. In the middle or long term, or when paying or returning these funds to the homeland, they will have a negative influence on international reserves.

1.2. Components of the International Reserves

Generally speaking, international reserves are made of two essential factors: [8]

1-Foreign currency reserves: It means the foreign currencies that can be converted into one another. This does not mean converting them into gold, as was the case under the gold standard. These currencies are national ones that have the possibility of being accepted in general to fulfil obligations outside the state- borders. To add more, the functions that they perform abroad are the same as their functions in the local economy, which are represented by being a store of value, and used in measuring international commodity prices, in addition to their main role as a mediator for exchanging in the light of the expansion of transactions including securities, currencies and deposits.

2-non-currency reserves: include:

A-Monetary gold: This refers to the gold owned by the monetary authorities. It includes gold bars and unallocated gold accounts (gold deposits) with non-residents, i.e., monetary gold represents the gold held by monetary authorities as reserve assets.

B-Special drawing rights: They represent the international reserve assets that the International Monetary Fund establishes to supplement the needs of the Fund's member countries. It must be noted here that the special drawing rights

are allocated in proportion to the shares of all member countries in the Fund. The special drawing rights are known as (paper gold), and they are not considered real money, which means that they do not have a physical entity but rather they are book entries made by the Fund between the members participating in rights private clouds. They are assessed based on a basket of anchor currencies which is used as a unit of measurement by the International Monetary Fund and other international organizations.

C-Reserves with the International Monetary Fund: It represents the shares of the member countries in the fund. The share of each member is estimated according to a formula which includes a set of indicators that measure the level of economic activity in each member country. Examples of these indicators are the national income, the structure of exports, the ratio of exports or imports to national income, and the number of international reserves. According to certain treaties or agreements, each member country is now able to borrow or withdraw from the fund when it is exposed to an external imbalance due to the idea that these rights represent international reserves which can be used to settle the payments resulting from international trade between the member countries. This is called an ordinary drawing, right?

D- Other reserve assets: They include all assets that are available at the disposal of the monetary authorities. But they were not listed within the other categories of reserve assets such as short-term loans of repayable foreign currencies provided by the monetary authorities to non-resident banks, long-term loans to finance a deficit and finance the balance of payments, in addition to the net market value of financial derivatives (including futures, forward contracts, swaps, and options) with non-residents, as well as other financial assets such as shares of investment funds and others.

1.3 Indicators and importance of the international reserves: The importance of international reserves may have risen in several indicators. Chief among them is: [9]

1- The ratio of international reserves to imports: This indicator is a measure of the causal relationship between the size of holding the reserves against the imports and the direct proportionality of that relationship. It refers to the idea of the adequacy of reserves to be sufficient for the trade proportion of a certain country. (Total official foreign reserves/value of commodity imports) They express covering the imports and short-term foreign liabilities of reserves.

2-The ratio of reserves to the broad money supply: This ratio refers to the amount of covering the international reserves to the public monetary group in a

way that represents the number of international reserves to cover the payment procedures of high currency (currency in circulation and current deposits) easily. The importance of this indicator can be noticed in emerging countries as they determine the number of reserves against the money supply.

3-The ratio of international reserves to foreign debt: This indicator measures the ratio of reserves to the size of debt, especially for the major borrowing countries, namely the developing ones. The International Monetary Fund has determined the number of reserves against foreign debt by analogy or equalization of 1-to-1.

Second Part/ Balance of Payments status and its impact on the volume of international reserves

The impact or role of international reserves in the balance of payments can be clarified in both cases of deficit and surplus. In the case that there is a surplus in the balance of payments resulting from increased exports, this will lead to a rise in the exchange rate of the local currency. As a result, the central bank will intervene to buy foreign currency and sell the local one to restore the exchange rate to its normal status. In this case, the international reserves of the Central Bank will increase as well as its liabilities (i.e., an increase in the local money supply). It will also lead to a decrease in the interest rate in the short term as follows [10]:

Figure(1)The state of the Payments rate and its Impact on International reserves (The surplus State)
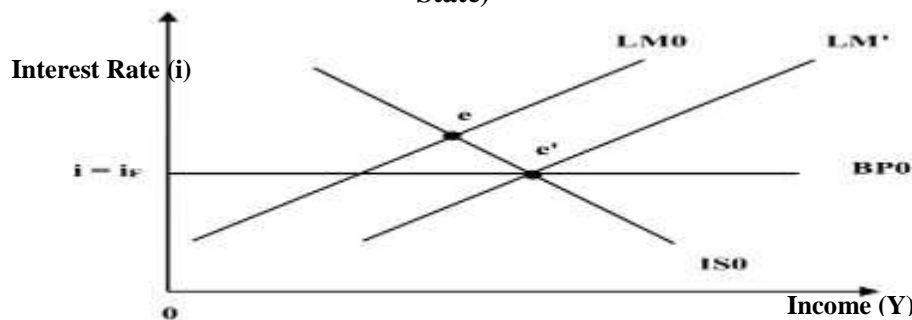
In the above figure, the (LMO) which is the equilibrium curve in the money market and the (ISO) is the equilibrium curve in the commodity market. The curve (BPO) represents the equilibrium curve of the balance of payments. It is horizontal because any slight deviation in the local interest rate, which is less than the international rate, will lead to moving the short-term capital outside the country. This means that the freedom of short-term capital will maintain the stationary of the interest rate internationally, as point (e) is the equilibrium point for the money and commodity market. However, the balance of payments

achieves a surplus, and following the sterilization policy, the Central Bank is buying foreign currency and selling local currency, and as such, the money supply is increasing and the curve (LMO) is turned into ('LM) and the interest rate is decreasing to the equilibrium level, where the balance shifts to point(e`). Which fulfils the internal balance, i.e. (money and commodity market) and the external one, i.e. (balance of payments), let alone the impact of the low-interest rate on spending that is highly sensitive to the interest rate by an increase in the demand for loans in new real investment projects. The expansion of encouraging this spending increases the real output and income, and this is done with the assumption that there are available resources. It is worth noting that the case will be different in case the deficit is in the balance of the payments as can be seen in Figure (2):

Figure (2) The state of the payments balance and its impact on international reserves (deficit status)
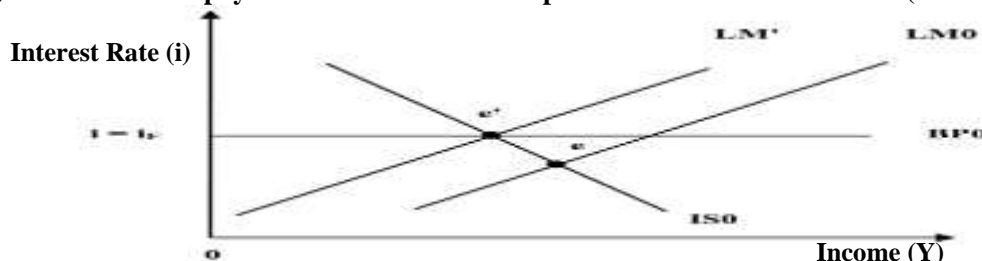
Here, the central bank will intervene when there is a deficit in the balance of payments by selling foreign currency and buying local ones. Due to this procedure, the money supply will decrease and the (LMO) curve will shift to (LM) and the balance will be fulfilled at point (`e). The effects of the interest rate will be reflected in the decrease in the demand for loans in real investment projects, and the decline in this spending reduces the output and income.

Third Part/ International Reserves in Iraq and their Relation to Payments Balance

3.1. Development of the foreign reserves in Iraq after 2003: The process of creating foreign reserves in Iraq depends mainly on oil. This can be noticed through the following table below. The size of the foreign reserves increased from (9.4) billion dollars in 2004 to about (77.8) billion dollars in 2013, due to the high oil prices, while the foreign reserves recorded a significant decline to about (44.6) billion dollars in 2016. After that, it rose again in 2017 and 2018 (48.9 and 64.2 billion dollars, respectively). Thus, it is clear that foreign reserves have reached high levels and their percentage of total imports reached about (15.9%) during the period (2004-2018). This indicates that the Central Bank retains more than what is required during normal circumstances, and this

requires directing those reserves towards investments that enhance the development projects and fulfil the development goals.

Table (1) Foreign reserves, trading balance and revenues of oil and taxes. A ratio to the total revenues for the period 2004-2018

year	Ratio of oil revenues to total revenues (%)	The ratio of tax revenues to the total of revenues (%)*	Foreign reserves (milliard dollars)	Trading Balance (million dollars)
2004	98.8	0.5	94	-3492
2005	97.3	1.2	122	3695
2006	95.6	1.2	181	11822
2007	92.9	0.2	304	22965
2008	87.3	1.5	492	33555
2009	88.6	6	444	7109
2010	85.6	2.1	406	14435
2011	82.9	1.3	610	39048
2012	91.6	2.2	700	44053
2013	97.2	2.5	778	39321
2014	92.2	1.8	664	38780
2015	77.2	5.8	534	3871
2016	81.4	7	446	7090
2017	87.9	8	489	19693
2018	89.7	5.3	642	41524

*the ratios have been obtained depending on the data of:
-Central Bank of Iraq, annual statistical bulletin (2004-2019)
-Central Bank of Iraq, monetary policy report of the Central Bank of Iraq for different years.

Table 2. Variables with Measurements

Var.	Variables	Sources
LogY	foreign reserves	CBI
LogX1	Exports	CBI
LogX2	Imports	CBI

Table (1) shows how high the percentage of revenues from oil exports is as compared to revenues from taxes, which were very low. To add more, the high percentages of oil revenues were reflected in the position of the trade balance, which is one of the parts of the payments balance. This has led to the rise or response of the size of foreign reserves to these revenues in particular. This means that the foreign reserves of the Iraqi economy are generally linked to the balance of payments (and the trade balance in particular), as long as the Iraqi economy relies heavily on oil revenues and not on any other revenues.

3.2. An econometric study of the impact of exports and imports on the size of foreign reserves in Iraq for the period (2004-2018): Annual data were used by the Eviews 13 program. The double natural logarithm was also taken.

Table 3. phillips-Perron test

Verb.	Level (pro.)			1diffr. (pro.)		
	Int.	Int & Tr.	Non	Int.	Int & Tr.	Non
LogY	0.1	0.7	0.9	0.07	0.1	0.02
LogX1	0.2	0.4	0.9	0.004	0.02	0.0004
LogX2	0.1	0.3	0.9	0.001	0.01	0.0000

Source: Eviews 12 program

According to the Phillips-Perron test, the time series related to the model was

unstable at the identified level and the first difference was taken for it, then it was stable, and thus the Ardle model can be used.

Table 4. ARDL Model

Variable	Coefficient	t-Statistic	Prob.	
Log X1	0.901	5.94	0.0019	
Log X2	-0.900	-2.64	0.0459	
F-Bounds Test		ECM Regression		
F-statistic	11.87	CointEq(-1)*	-0.39	0.0000
k	2	Selected Model	2,1,2	
R^2	99%	Adj R^2	98%	
Jarque - Bera	0.74	Prob.	0.68	
Breusch-Godfrey Serial Correlation LM Test		Heteroskedasticity Test :Breusch-Pagan-Godfrey		
Prob.	0.15	Prob.	0.62	

Source: Eviews 13 results.

After applying the Bounds test only, the value of the Fisher parameter reached (11.87), which is higher than the upper and lower Bounds. As such, this confirms the existence of a co-integration relationship in the long term among the variables of the model. The error correction parameter test indicates that the test value is negative and significant at (0.39), which means that the speed of adjusting the deviation over time requires (39%). The Ardl test results were as follows: The elasticity of foreign reserves towards exports was approximately equal and reached (0.901), and it was significant. It has been associated with a positive relationship, meaning that increasing foreign reserves by (1%) leads to an increase in exports by (90%). This is consistent with the logic of economic theory, as exports enhance the foreign exchange reserves of the Central Bank of Iraq, and an increase in economic activity from domestic production would increase the amount of those foreign reserves. The elasticity of foreign reserves towards imports has reached (-0.900), and it has been linked to an inverse relationship, meaning that an increase in imports by (1%) leads to a decrease in foreign reserves by (90%). As the increase in imports increases the demand for foreign currency (the US dollar), and then the foreign exchange reserve decreases by the number of sales of the US dollar in the currency selling window at the Central Bank of Iraq. The interpretation coefficient reached about (99%), which is considered high. This means that the exports and imports affect and explain the fluctuations in foreign exchange reserves. Fisher's test confirms the significance of the model as a whole. As far as the standard examinations are concerned, all of them refer to the integrity of the model, whereas the (Jarque - Bera) test It indicates the presence of a normal distribution. The (Breusch-Godfrey) test, on the other hand, indicated that the model was free of the problem of self-correlation, whereas the (Breusch-Pagan-Godfrey) test indicated that the model was free of the problem of

Heteroskedasticity. The(CUSUM & CUSUM-Square Test) That is, the stationary of the estimated structural parameters of the model.

Chart 1. CUSUM & CUSUM-Square Test
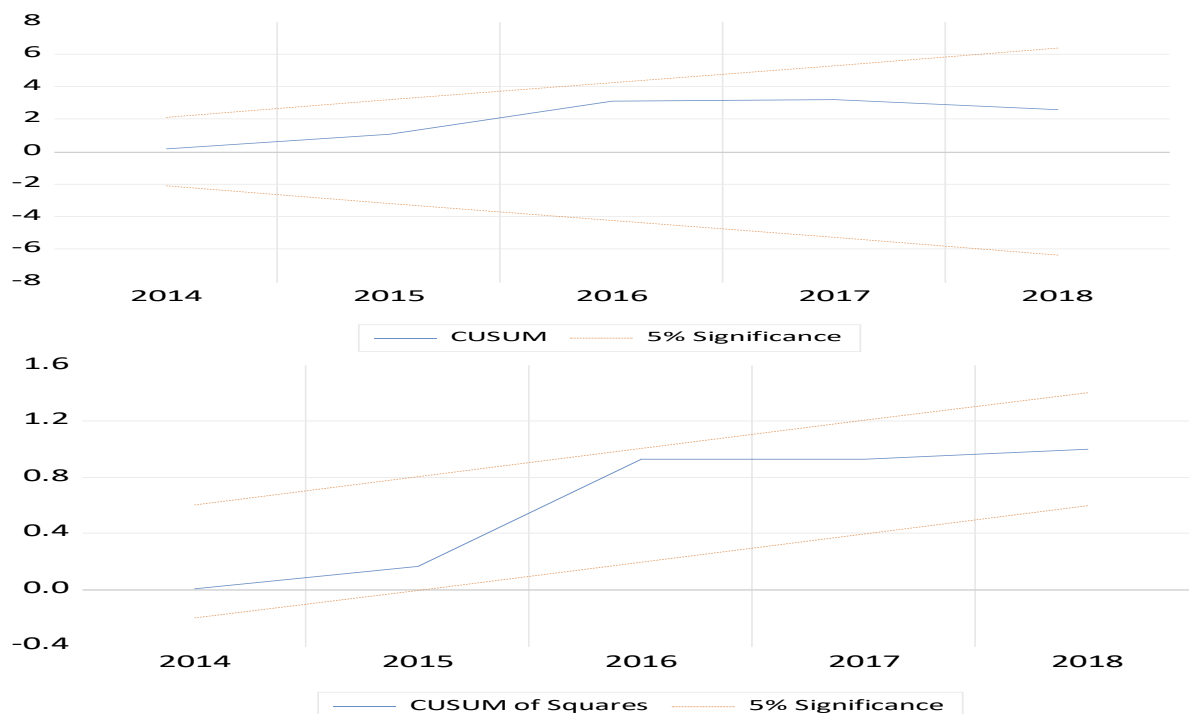
Conclusions

1- Foreign reserves are generally affected by many variables, but they are usually determined by the level of growth and the economic circumstances of each country.

2- In oil-producing countries, the size of the international reserves is usually linked with that of revenues coming from oil exports. As a result, the size of these reserves depends mainly on the status of the trade balance.

3- The Iraqi economy is a rentier economy, which has led to a close correlation between the trade balance and the size of the international reserves. This has been evident with the help of the statistical test, which showed that there is a close and direct relationship between oil exports and foreign currency reserves, as well as a significant and inverse relationship between imports and the size of the international reserves. This is consistent with the research hypothesis and with the logic of the economic theory. Therefore, the fluctuations in these reserves are explained by changes in the status of the trade balance of the Iraqi economy.

4- It has been clear through the study that the size of the foreign reserves in the Iraqi economy is greatly linked with oil revenues because the percentage of the latter is higher as compared to the relatively low tax revenues.

Recommendations

1- Hard work should be on the variety of the production base and improvin the competitive advantages of the commodities produced to reduce the rents of the Iraqi economy.

2- Enhancing the country- exporting capacity through improving the quality and diversification of local production and reducing the dependence on imports, a matter that supports the possibility of enhancing the size of international reserves in the Iraqi economy.

3- Determining essential objectives for efficiently investing international reserves, a matter that reduces the waste and potential risks of loss or decline in international reserves in the economy.

4- Establishing sovereign funds that support foreign reserves and reduce the risks of exposure to external difficulties.

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