Effect of Public Debt on The Trade Balance in Iraq For The Period (2003-2021)

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Abstract
Despite the significant increase in public spending in Iraq, it was not directed toward the important sectors that have an important role in correcting the productive structure. Rather, most of the public expenditure was going to cover the required imports, or to face shocks, whether security or health, and this caused a continuous decrease in the volume of Iraq's exports of goods and services, as the aim of the study was to review the importance of public debt and its impact on the trade balance, as well as to know the economic policies that can contribute to strengthening the trade balance, as the study proved through the (ARDL) model that there is a direct relationship between the domestic debt and the net trade balance, and an inverse relationship with regard to the external debt and the trade balance, as an increase in the external debt by one unit leads to a decrease in the net trade balance, and the study came out With several recommendations, the most important of which is directing public debt funds, whether domestic or external, to build and expand productive capacity. That borrowing be only for public investment, not consumption. As well as supporting the private sector as the main engine of productive sectors.

Paper type: Research paper

Keywords: Public Debt, Public Debt Structure, Trade Balance, the Relationship Between Debt and the Trade Balance, Measuring the Effect of Debt on the Trade Balance
1. Introduction

Public debt is an important means of supporting the economy through its impact on the trade balance, but it is also a double-edged sword. Either it is an obstacle to the development of economic sectors and then increases imports and reduces exports, or it may have a significant impact on achieving real investment and then enhances the role of exports and reduces dependence on Thus, there was a surplus in the trade balance, but the increase in the volume of public debt was not directed towards the development of the productive sectors. Therefore, there was a continuous deficit in the trade balance through the increase in imports at the expense of exports because the borrowing came as a remedy for security and health conditions, as well as a remedy for the shocks that occurred in oil prices, and did not contribute to correcting the structure of the destroyed Iraqi economy. Public debt has become an important source for the state to resort to when there is a deficit in regular revenues such as taxes and fees. The public debt can be defined as the funds that the state obtains, whether from inside or outside, according to certain conditions, and that it is ready to pay with the accumulated burdens and according to the conditions that have been agreed upon. It is also possible to analyze the structure of the public debt according to the place of residence, as follows: the domestic debt and the external debt (Alwan and Taleb, 2019).

1.1 Literature review

There are many studies that deal with the issue of public debt and its impact on some macroeconomic variables. We will discuss some of these studies as follows: Romero and Marín (2017) illustrated the impact of public debt on the rate of inflation by studying the relationship between public debt, money supply, and inflation in 52 countries using the co-integration methodology and the error correction model (ECM). The research reached several conclusions, the most important of which is that the increase in local public debt leads to an increase in the rate of inflation, especially in countries where the domestic debt is high. The research also showed that the increase in the ratio of domestic debt to GDP is associated with high inflation in heavily indebted developing countries, but the matter is different. In developed countries, the importance of this relationship decreases, and the correct management of fiscal policy is crucial in achieving stability at the macroeconomic level, as it directly affects domestic debt and inflation.

Afolabi and Atolagbe (2018) clarified the extent to which inflation is affected by shocks in the money supply, the budget deficit, and the domestic debt through the use of the error correction vector (VECM). In the short term only, the budget deficit, domestic debt, and money supply do not have a significant impact on the general level of prices, so the government must work on fiscal discipline in light of the increase in the budget deficit. Turki and Al-Dulaimi (2019) verified the extent of the ability of the financial authority in Iraq to bear the burdens of debt service based on a set of economic indicators of public debt developed by international organizations and institutions concerned with this subject, such as the International Monetary Fund and the World Bank, in order to know whether the public debt in Iraq is within safe limits. Or has it reached the stage of danger, and the research has reached a set of conclusions, the most important of which is that Iraq has exceeded the safe limits of public debt in the year (2017), as the ratio of debt to GDP reached (64.5%), which is an indication of the seriousness of the size of the Iraqi public debt and the heavy burden of debt and the inability of the Iraqi economy to fulfill its financial obligations towards its creditors. The researcher recommended diversifying sources of income and not relying on oil exports. Turki and Ali (2019) clarified the most important reasons leading to public debt, the structure of public debt and its impact on some macroeconomic variables, and the extent of the influence that public debt exerts on those variables. And investments, and the researcher recommended the need to work on attracting foreign capital to invest and support the productive sectors as a means to reduce resorting to public debt. Shallal (2019) measured the impact of public debt on indicators of economic development (gross domestic product, education, and health). The research reached several
conclusions, the most important of which is the existence of an inverse relationship between public debt and these indicators. Domestic debt when absolutely necessary and moving away from external debt, as well as increasing the percentage of investment allocations in the general budget in line with the need for it.

Al-Jumaili et al. (2019) illustrated the importance of public debt and its role in financing the budget deficit, and then its repercussions on the structure of economic growth in Iraq, as the research reached several conclusions, the most important of which is the large increase in debt. Because of the political and military crises such as the Gulf War and the international sanctions imposed on Iraq represented by the economic blockade, as well as Iraq's exposure to a double shock represented by the drop in oil prices and the war on terror. During the period 2014–2016 compatible with monetary policy This policy aims to address the deficit in the state's general budget, which reduces the continuing need for public debt. Muhammad (2019) explained the impact of foreign debt in Sudan on the gross national product as well as the negative impact of foreign debt on the balance of payments, and the research reached several conclusions, the most important of which is that foreign debt has a negative impact on the performance and stability of the Sudanese economy. The researcher recommended conducting the necessary feasibility study for projects that will be financed by external loans, developing a strategy for borrowing in line with the country's ability to fulfill its financial obligations towards creditors, studying the general budget, and knowing the possibility of repaying loans on time before signing them.

Tejvan Hettinger (2020) analyzed the relationship between public debt and economic growth. The research reached several results, the most important of which is the absence of a clear relationship between public debt and its impact on economic growth. On the other hand, the research indicated that debt will have a negative impact on economic growth rates if it increases above certain rates. The research cited the economic growth that was observed in the United States of America during the Second World War, despite the high level of public debt, but its impact was negative, as it indicated that in the case of an economic recession and the inability of the private sector to exchange, the debt will have a positive impact on economic growth. Al-Abdani and Al-Ghamdi (2020) showed the importance of raising the efficiency of public debt, knowing the role it plays in raising economic growth rates, and defining economic policies that contribute to raising the efficiency of public debt. The research reached several conclusions, the most important of which is that the sustainability of public debt directly related to the efficiency and effectiveness of debt, and that there is a variation in the short term in the ratios of growth rates of debt service on the one hand and growth rates in non-oil revenues, non-oil domestic product, and exports on the other hand, and the research also showed the need for a longer period of time in addition to continuing to raise debt efficiency. In order to determine its impact on some economic variables, the researcher recommended setting a ceiling for government public debt commensurate with the size of the economy and its absorptive capacity, taking into account aspects of spending in the local market to serve the Saudi economy.

The problem of this research is that the continuous increase in public debt, both domestic and external, with a continuous decline in exports and the increase in import rates in Iraq gives a picture of the incorrect use or direction of those funds spent on it.

The objective of this research was to clarify the importance of directing public debt funds towards public projects, especially infrastructure, which have an important and complementary impact on the activity of the private sector and contribute to the promotion of important economic sectors.

2. Material and Methods
The compatibility between the theoretical side and the applied practical side is achieved through the use of one of the standard or statistical methods by estimating the relationships between the research variables and then interpreting the relationships between them. (ARDL) for the period (2003–2021).
2.1 Hypotheses

According to the Phelps-Peron test, it appears that the external debt is static at the original level, while the trade balance and the domestic debt are static in the first difference, that is, they suffer from a unity root. Therefore, we accept the null hypothesis (H0) and reject the alternative hypothesis (H1), but according to the Dickie Fuller test, it turns out that the external debt and the trade balance are static at the original level, so we reject the null hypothesis (H0) and accept the alternative hypothesis. As for the internal debt, it is static in the first difference, so we accept the null hypothesis (H0) and reject the alternative hypothesis (H1).

2.2 Public debt Structure

"internal debt" Definition: all financial entitlements that have been agreed upon between the state and local creditors, individuals or companies, and agreed upon under certain conditions, or are the government’s financial obligations towards its creditors. Or it is a contract between two parties, a creditor and a debtor, as the creditor sells treasury transfers or bonds in the local currency to the debtor, and in return, the debtor undertakes to pay all the money according to the terms agreed upon between the two parties (Kadhim and Alwan, 2020).

External public debt represents all government financial obligations towards non-local creditors, and the main factor that determines the type of debt is the residency condition and not the borders of the state. This type of debt is used to bridge the public budget deficit or advance the economy, in addition to other goals. It can also be defined as the entitlements of creditors outside the borders of the state in foreign currency or securities, regardless of whether they are individuals, companies, or governments. (Ali and Salman, 2020).

2.3 Public debt instruments

Public debt instruments It is a paper or electronic contract or commitment that enables the creditor party to collect its money through these tools in accordance with its terms and conditions, as it is legally enforceable evidence of debts and their timely payment. These tools include the following:

Treasury transfers are securities with a duration between 3 and 12 months and are traded in the secondary stock market. They are considered a short-term debt instrument as their sale value upon issuance is less than their nominal value, and the determination of their price is left to market forces represented by supply and demand. (Dagher and Salman, 2019).

As for government bonds, they are a tool with a low degree of risk and liquidity compared to treasury transfers. Governments often resort to them to finance their public spending, with a payback period of more than a year. As the government resorts to this type of debt to finance its expenditures when there is an imbalance or weakness in the ordinary revenues (taxes and fees), the government issues this type of bond at a specific interest rate and a specific repayment period, and the issuance of this type of bond depends on the country's economic situation and the purpose of the debt. (Whim, 2009).

2.4 Reasons for resorting to public debt

Reasons for resorting to public debt: The reasons for resorting to public debt can be divided into many categories as follows:

low domestic savings and misdirection of public debt funds Developing countries resort to debt due to low domestic savings. Hence, it is better for them to work on enhancing the volume of domestic savings and directing them towards their development programs instead of resorting to borrowing that plunged them into the debt trap, especially external debts that were given on conditions. On the one hand, we find that most developing countries have misused and directed their debts, as they were used to finance current expenditures (salaries and wages) instead of directing them towards investments that led to expanding the production base. (Dagher and Salman, 2019).
When the state is unable to increase taxes or impose new taxes to finance public expenditures, either because it has reached its maximum level, after which it is not permissible for the state to resort to more taxes that lead to the deterioration of economic activity and the standard of living, or because its increase leads to serious political or economic reactions (Ismail and Wahzal, 2019).

Also, weak tax policy occurs when the state is unable to increase taxes or impose new taxes to finance public expenditures, either because it has reached its maximum level, after which it is not right for the state to resort to more taxes that lead to the deterioration of economic activity and the standard of living, or because its increase results in serious political or economic reactions (Alwan and Sadiq, 2020).

Developing countries suffer from almost continuous political turmoil that makes them race to arm themselves, and because of their weak resources, this pushes them to resort to domestic and external public debt. However, the share of external debt is usually the largest, and military spending in these countries is considered non-productive spending. Continuous waste of production capacity (Manati and Majid, 2017).

High real interest rates The concentration of borrowing in dollars led developing countries to bear high interest rates and high exchange rates and also led to a significant rise in real interest rates (the real interest rate is the difference between the nominal interest rate and the rate of inflation), with which a group of debtor developed countries led to an increase in debt burdens as debt interest in many countries exceeded the value of the original debt and public debt service became a large proportion of the net debt (Al-Yahya and Al-Kharboush, 2007). Also, the phenomenon of specialization and international division of labor that has been imposed on developing countries to specialize in the production of raw materials at low prices and to import their needs for machinery, equipment, and advanced technology from advanced industrial countries at high prices has led to an increase in public debt (Daoud and Muslim, 2007).

2.5 Relationship between trade balance and public debt

Public debt and trade balance have a philosophical relationship in the economy, which is reflected in the average tendency of exports and imports. There is also a relationship between the level of economic activity and the level of imports and exports, as summarized in the following:

The relationship between the level of domestic consumption and the level of imports and exports, as summarized in the following:

The relationship between the level of domestic consumption and the level of imports and exports, as summarized in the following:

The ability of the national economy to import is a variable that governs the levels of consumption, investment, and production, and if energy is exposed to weakness or fluctuation, it brings with it bad results for the national economy, especially if the tendency to import is large and the structure of imports includes an important group of commodities that are difficult to dispense with. Hence, the increase in the amounts allocated to service the burdens of external debts in developing countries may clearly affect their ability to finance their imports. The country's own ability to import is determined in the light of two main factors: the amount of foreign currency that enters the country as a result of the goods and services it exports to the outside world after paying the foreign obligations owed by the country, and the purchasing power of the export unit in the global market, which depends on the relative relationship between the prices of exports and imports (Farida, 2010).
3. Discussion of Results
3.1 Analyzing the results of the standard model used
3.1.1 The expanded Dickie Fuller test (ADF)
Table (1) shows that the trade balance and external debt are static at the original level, so we reject the null hypothesis and accept the alternative hypothesis that the value of (Prob) is less than (0.05%). As for the domestic debt, it is static at the first difference, so we accept the null hypothesis (H0) We reject the alternative hypothesis that the value of (Prob) is greater than (0.05%).

3.1.2 Phelps-Peron test (P.P)
Table (2) shows that the external debt is constant at the original level, so we reject the null hypothesis (H0) and accept the alternative hypothesis (H1) because the value of (Prob) is less than (0.05%), while the trade balance and domestic debt are static in the first difference, so we accept the null hypothesis (H0) The value of (Prob) is greater than (0.05%).

<table>
<thead>
<tr>
<th>Study variables</th>
<th>degree of integration</th>
<th>At Level</th>
<th>At First Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Constant</td>
<td>With Constant &amp; Trend</td>
<td>Without Constant &amp; Trend</td>
</tr>
<tr>
<td>IND</td>
<td>I(1)</td>
<td>0.98</td>
<td>0.57</td>
</tr>
<tr>
<td>EXD</td>
<td>I(0)</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>BOT</td>
<td>I(0)</td>
<td>0.0256</td>
<td>0.0346</td>
</tr>
</tbody>
</table>

Source: Based on the work of the researcher program EViews (10)

<table>
<thead>
<tr>
<th>Study variables</th>
<th>degree of integration</th>
<th>At Level</th>
<th>At First Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Constant</td>
<td>With Constant &amp; Trend</td>
<td>Without Constant &amp; Trend</td>
</tr>
<tr>
<td>IND</td>
<td>I(1)</td>
<td>0.99</td>
<td>0.89</td>
</tr>
<tr>
<td>EXD</td>
<td>I(0)</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>BOT</td>
<td>I(1)</td>
<td>0.1339</td>
<td>0.1953</td>
</tr>
</tbody>
</table>

Source: Based on the work of the researcher program EViews(10)

3.2 Analysis of the impact of public debt on the trade balance
3.2.1 Bound Test for Co-Integration Results
This test is used to ensure the existence of a cointegration relationship between the research variables, the domestic and foreign debt are independent variables and the trade balance is a dependent variable, and this is done through a statistical value of F where it is compared with the tabular value of the upper limit, as in the following table:
Table (3) Bound Test Results for the Relationship between Public Debt and Net Trade Balance (BOT)

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>8.600938</td>
<td>2</td>
</tr>
</tbody>
</table>

(Critical Value Bounds)

<table>
<thead>
<tr>
<th>Significance</th>
<th>I0 Bound</th>
<th>I1 Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>%10</td>
<td>2.63</td>
<td>3.35</td>
</tr>
<tr>
<td>%5</td>
<td>3.1</td>
<td>3.87</td>
</tr>
<tr>
<td>%2.5</td>
<td>3.55</td>
<td>4.38</td>
</tr>
<tr>
<td>%1</td>
<td>4.13</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: prepared by the researcher based on the outputs of the statistical program EViews(10).

Table (3) shows that the value of (F statistic) amounted to (8.60), which is greater than the upper limit, as it amounted to (3.87) at a significant level (0.05%). We therefore accept the alternative hypothesis (H1). In other words, there is a cointegration relationship between the variables studied according to these results, and we reject the null hypothesis (H0).

3.2.2 The short-term parameters test

Table (4) shows that there is an inverse relationship between the domestic debt and the net trade balance, as an increase in the domestic debt by one unit leads to a decrease in the net trade balance by (-1.33) at a significant level (0.0005), assuming that other factors remain constant. The reason for this is Not directing domestic debt funds towards the important productive sectors that have an impact on increasing production and improving the trade balance, and that most of the domestic debt is spent as salaries, and the value of the error correction coefficient means that (1.02%) of the imbalance in the short term can be corrected in the current period as a result of any shock in the explanatory variable.

Table (4) Error correction model results and the short-term relationship

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(IND)</td>
<td>-1.339692</td>
<td>0.291326</td>
<td>-4.598603</td>
<td>0.0005</td>
</tr>
<tr>
<td>CointEq(-1)*</td>
<td>-1.025799</td>
<td>0.157642</td>
<td>-6.507156</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: prepared by the researcher based on the outputs of the statistical program EViews (10).

3.3 Long-term estimated parameters test

Table (5) shows that there is an inverse relationship between the net trade balance and the external debt, as an increase in the external public debt by one unit leads to a decrease in the trade balance by (-0.40) assuming that the other factors are constant and at a significant level (0.0117), and the reason for that It is not directing foreign debt funds towards important investments that have a positive impact on the productive structure.

Table (5) The results of estimating the error correction model and the long-term relationship of the net balance of trade (BOT) model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXD</td>
<td>-0.402326</td>
<td>0.137230</td>
<td>-2.931758</td>
<td>0.0117</td>
</tr>
<tr>
<td>IND</td>
<td>0.115254</td>
<td>0.193134</td>
<td>0.596758</td>
<td>0.5609</td>
</tr>
</tbody>
</table>

Source: prepared by the researcher based on the outputs of the statistical program EViews(10).
4. Conclusion

There is a great discrepancy in the critical level of public debt between developing and developed countries, and even between developing countries that enjoy political and economic stability and those that suffer from political and economic turmoil. The Iraq resorts to public debt with every imbalance or crisis it goes through, as it was found that there is a direct relationship between public debt and the budget deficit, meaning that public debt was found to finance the deficit. And there is a great weakness in the Iraqi market for securities, especially at the beginning of the research period, and it was directed towards developing it further after the year 2015 due to the continuous deficits, which is the reason for the inefficiency of the public debt. Likewise, the high percentage of the external debt borne by the Iraqi individual, which indicates the lack of a strategic vision to preserve the rights of future generations, in addition to a significant weakness in the flexibility of the productive system due to the destructive productive structure. The results proved the hypothesis of the research, because the public debt, whether internal or external, was not directed towards important investments that have a positive impact on the productive structure, so the public debt was negatively reflected on the trade balance, as the results proved that the effect of the debt was adverse on the trade balance, as it had no role in diversifying exports.

The results also proved that there is a long-term relationship between debt and the trade balance, but the impact of domestic and foreign debt was adverse on the trade balance, as it did not direct the important sectors, and that the public debt was found in order to face shocks, whether health or security, and not within a well-studied plan.

References

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(2) 

(3)