International Journal of New Political Economy 4(1): 185-211, 2023

An Analysis the Impact of Economic Reform Policies on Liberalizing the Trade Balance in Iraq for the Period 1990-2020

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ARTICLE INFO

Article history:

Date of submission: 27-11-2022

Date of acceptance: 09-03-2023

JEL Classification:

F14

F18

Keywords:

Economical Installation Software

Structural Adjustment Programs

Trade Balance

Imports

ABSTRACT

The aim of the study was to analyse the nexus among economic reform policies and the liberalization of foreign trade and its impact on the balance of trade in Iraq. The study uses the annual time series data for the period 1990-2020. The study applies the ARDL method to estimate the relationship between (exports or trade balance), and economic growth rate and Bounds test approach was used to determine the co-integration. The result of the study revealed that there is a significant negative association, which means there is a long-term relationship between them, but the relationship is very weak in the short term. Because the export parameter was weak and negative, there was no long-term impact on the link between exports and economic growth. Additionally, the results show the weak negative impact of economic growth on the trade balance in both the short and long term, which means that there is a joint integration between economic growth and the trade balance. Therefore, it is concluded that export policy in Iraq did not play a pivotal role in the foreign trade liberalisation programs, as there were many challenges that prevented the expansion and diversity of exports and international competition.

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DOI: https://doi.org/10.48308/jep.4.1.185

1. Introduction

The international trade environment has witnessed successive changes throughout the history of international trade relations. Naturally, there are two main options to deal with the international trade environment: either Openness or isolation, and the option of Openness in broad and free trade relations with the rest of the world. It can be a positive openness if the state engages in these relations effectively and tries to maximise its gains and interact efficiently and flexibly with the data of this environment to accept what achieves its interests and reject what contradicts them. The option of Openness can be harmful if it means the state's acceptance of all that is imposed on it from the international trade environment, as it turns the state into a mere recipient in its trade relations with the actors in the arena of international trade relations. The agreements related to the liberalisation of foreign trade have contributed to an increase in the degree of interdependence between the countries of the world. After 2003, the Iraqi need for economic reforms in the style of market freedom and privatisation has been raised, and it was an ideological choice assumed by developed capitalist countries over developing countries for more than three decades as an alternative, and now this need has reached in Iraq after some years of devastating wars and economic blockade and direct occupation as well as state policy. Therefore, it necessary to choose an economic approach by which the aforementioned aggravating problems in the Iraqi economy are addressed, like other countries transitioning from the totalitarian regime that is going through crises, has taken the path of economic reform according to the perspective of international institutions to re-map the economic path through programs of stabilisation and structural adjustment of its economy.

Iraq's journey towards becoming a member of the WTO has been a slow and steady one. Although, Iraq has been adopting market-oriented policies since 2003, with the aim of liberalizing foreign trade by reducing tariffs on imported goods and services. However, this has led to an overabundance of imported goods, causing a decline in the local production of agricultural and

industrial goods. Consequently, Iraq's non-oil trade deficit has worsened (AKTUĞ et al., 2019). Although the total trade balance (oil and non-oil) has been in surplus since the year 2000 (with the exception of 2009 because of the global financial crisis), the non-oil trade deficit persists. These trends indicate that Iraq's liberalisation policies have not yet had the intended positive effect on its trade balance. Notably, according to (Muhammad, 2022) the non-oil exports still account for a meagre 4% of total exports, highlighting the country's reliance on its oil exports. There is no doubt that trade has played a vital role in all economies since ancient times. Trade can contribute to economic growth in developing countries by providing material aspects (Hysa et al., 2020). Iraq has been struggling with economic challenges for decades, including high unemployment rates, inflation, and a large trade deficit (non-oil). In response, the government has implemented various policies aimed at liberalizing the country's economy and improving its competitiveness in the global market. The impact of these policies on the trade balance, however, remains unclear. While some researchers argue that liberalisation can help boost exports and reduce imports (Auty, 2001; Hodler, 2006), and it may lead to increased reliance on foreign goods and negatively affect local industries (Torvik, 2009; Cavalcanti et al., 2011). Therefore, the importance of the study is to analyse the effects of economic reform policies, especially those related to the external sector. The main problem of the study stems from the following question: What is the effect of economic reform policies on the liberalisation of the trade balance in Iraq, from which some sub-questions arise, which are the reflection of the effects of foreign trade liberalisation on the trade balance in a selection of countries. The study proceeds from the hypothesis that economic reform policies, including the liberalisation of foreign trade, help revitalise some sectors that are the main engine of the economy by creating new job opportunities and improving exports, and then recording a surplus in the trade balance. From the foregoing, the current study is distinguished from previous studies in several aspects, the most important of which is that it specialised in studying the direct impact of economic reform policies on the

trade balance, as well as the use of modern standard analysis tools, as well as the time period included in the study.

The remaining portions of the paper are organised as follows. The theoretical basis and literature are presented in Section 2. The research methodology is described in Section 3, which includes an empirical model and a list of the variables. Section 4 represents the data analysis techniques and findings of the study. At last, concluding remarks and policy recommendations are presented in Section 5.

2- Theoretical Literature and Background

2.1. Economic Reform Programs and Liberalisation of Foreign Trade

It is an expression of the policies that make domestic expenditures consistent with the available resources by finding a combination of fiscal, monetary, trade, and exchange rate policies. It adopts measures that stimulate the goods and services sector and embraces micro-economic policies that seek to achieve efficiency in use of resources by removing price distortions, enhancing competition, and easing administrative control (Guitain, 1999). It is economically defined as a process of directing and adapting the national economy according to emerging and predetermined goals to achieve or avoid adverse effects generated by internal factors such as the deficit in the public budget, high unemployment, inflation rates, etc., and external factors such as the balance of payments deficit, high external debts, etc. (Darwish, 2008). It is essential to clarify the justifications for applying structural stabilisation and adjustment policies in the transition countries to a market economy. Many developing countries became convinced of the need to pay attention to stabilisation and structural reform policies. These internal and external shocks and the escalation of the external debt crisis are since most developing countries were characterised by standard features behind the problems they suffered. The most important of these features are (Basudan, 1991):

- A relatively high rate of inflation.
- There is a large deficit in the state's general budget.

- It has a significant deficit in the balance of payments.
- Existence of overvalued exchange rates.
- There are weak and limited local financial markets.
- The existence of a large and dominant public sector with low economic efficiency, with distortions in the structure of the prices of goods, services, and factors of production.

The package of measures for economic reform takes as its reference background the views and ideas of the New Classical Economic Theory. These measures aim to maintain the overall financial equilibrium within the development framework and to accelerate economic growth rates. The International Monetary Fund and the World Bank have adopted these views and ideas in facing the problem of economic imbalance in developing countries. These programs consist of three stages, the first stage ends with its required conditions, the second stage begins and the third, economic reform is carried out according to scientific economic logic (Al-Mahdawi, 2006). The liberation of the economy is the first step in implementing economic reform programs, as the planning system is abandoned. This stage seeks to lift the government restrictions imposed on all internal and external transactions, and the liberalization of prices and foreign trade is the prelude to economic elements targeted for reform, taking into account the correction of the customs tariff to moderate levels. This measure would support the competitiveness of national industries in reasonable gradual stages and feed the market with basic commodity flows. Thus, reforming this element would help the directions of the international institution towards opening markets and lifting barriers to the free movement of goods and services, an embodiment of the slogan (Duvsky, 2001).

1- Stabilization Policies (Economic Stabilization): Stabilization policies are "several macroeconomic policies aimed at correcting fiscal and monetary imbalances and removing the imbalance between aggregate demand and supply to maintain a certain level of economic performance while reshaping the elements of economic policy towards the market

economy system." (Al-Ahwany, 1993) also refers to those policies recommended by the International Monetary Fund (IMF) as a first stage to putting measures to stabilize the economy into practice. These measures pertain to the demand side of the economy. They are implemented within a short-term time plan that extends from (12-18) months to contribute to addressing emergency imbalances that occur in the national economy, such as the deficit in the state's general budget, the trade balance and the deterioration of the value of the national currency, to be able to start the structural adjustment programs, which will not be created unless the work of those procedures is completed (Ali, 2002).

2- Correction Policies (Structural Adjustment): These policies represent the most crucial part of the structural adjustment programs and originated with the World Bank's introduction of structural adjustment loans. They aim to achieve stability in the balance of payments and reduce the deficit it faces. They also address the problem of external debt by influencing the supply side (Smy, 1982). The general concept is the adjustment of consumption patterns, reallocation of resources, and changes in the accumulation of production factors necessary to restore continuous growth in the face of a more hostile environment (Silofsky, 1987). Adjustment policies also refer to cases in which the economy needs to move beyond changing the general pattern of demand flows. And the existing presentation requires supporting the management of macroeconomic policy and exchange rates by adopting an available approach dealing with the macroeconomy or having a sectoral nature to allocate resources better and improve the effectiveness of their use (Al-Nuseirat, 2002). It is also defined as a program to change the course of the economy to reduce internal and external imbalances or remove them to ensure economic growth by making changes in monetary policy to increase aggregate supply (Al-Ani, 2000). It also means structural adjustment (austerity programs or contractionary policies carried out by member countries of the IMF to reduce their internal and external deficits) (Liretto, 1993).

3- Trade Liberalisation Policies: It refers to removing restrictions and obstacles imposed on the movement of goods and services and liberalisation of the movement of foreign trade by removing all non-custom limits due to the adverse effects of these restrictions on the economy. It is also used to subject taxes and fees with a similar effect to all gradual reduction and to amend legislation and laws contrasting with the Agreement to Facilitate and Develop International Trade (Al-Qadi, 2002). The quest to establish a multilateral international trading system to achieve freedom of international trade is the reason for the establishment of the World Trade Organization and its principles in terms of the successive reduction and abolition of customs duties, the focus on national treatment, and the most favoured nation (Muthanna, 2000).

4- International Trade Protection Policy (Restriction of International Trade): It is the policy by which the state interferes in the economic and commercial relations conducted by individuals and companies residing on its lands with people and companies abroad to influence the volume of these exchanges and how they are carried out. It considered one of the oldest policies that countries used during the Mercantilist period. This restriction policy prevailed in Europe, as it was emphasised that protection policies were followed and restrictions were imposed on import trade to prevent the leakage of wealth, especially gold and precious metals, abroad. It also prevailed between the First and Second World Wars, and restrictions on international exchanges increased (Maarouf, 2005). Protection is defined as any policy adopted by the state to protect the local industry from the risk of competition from foreign goods. In contrast, from the point of view of the World Trade Organization, and although the main goal is freedom of international trade, the authors of the agreement did not neglect the necessity of imposing restrictions and protection measures in some circumstances and cases for some sectors and some commodities.

2.2. Literature Review

According to the study of Naim and Al-Houri, (2012), which attempted to explain the effects of Liberalization of Foreign Trade on the Trade Balance of the Agricultural Sector in Syria. Many procedures have been taken by the new trends of economy and the regional and international agreements between Syria and the contracting parties to be in line with the data of Liberalization of Foreign Trade and opening the markets, which affected the agricultural sector to a large extent. As per the results of the study, process of trade liberalisation in Syria had, in some of its aspects, negative effects for it to take a leading role in the agricultural sector, which was manifested in its trade deficit. The study of Radwan et al. (2020) analyse the Impact of Foreign Trade Liberalization on the Trade Balance, explained the case of Algeria for the period -1980 – 2013.The study tried to find the answer to the following problem: What was the effect of liberalizing foreign trade on the trade balance?, the study concluded that there was a positive impact of the liberalisation of foreign trade on the trade balance in Algeria (Bulbul, 2004., Daoudi, 2016). A study by Al-Aqabi (2022) conducted in Iraq for the period 2004-2019 concluded that there is negative impact of these policies on the non-oil commodity trade balance and the services balance due to dependence on oil. Another study by Omran, (2019) started from a problem that reliance on the raw resource in the formation of the gross domestic product made it suffer from structural imbalances in its economic sectors, including the external sector, through reliance on oil as a basic commodity for exports, and thus the backwardness of the rest of the commodity sectors, which necessitated the need to adopt economic reform policies with international organisations. The study started from the hypothesis that the application of economic reform policies leads to addressing the imbalance in the external sector by activating the rest of the sectors depending on oil in the Iraqi economy. Commitment to the recommendations of international organisations, except at the time of the crises experienced by the Iraqi economy.

A study by Majeed (2018) aims to clarify the role played by the cash input in correcting the imbalance that occurs in the balance of payments. The response between the external situation represented by the state of the balance of payments (surplus, deficit) and the relevant economic variables (income, prices, exchange rates), since developing countries suffer from a decrease in the degree of response between these variables, so will the correction models, including the monetary model, work with the same efficiency in correcting the imbalance in the second group compared to the first group? The results showed that the cash input works effectively in the emerging countries (Malaysia), while it is unable to work with the same ability of effectiveness in the less developed countries (Egypt), however, both countries (Malaysia and Egypt) showed the correctness of the basic relationship in this entry, which is the negative relationship between domestic credit and international reserves, which is the mirror reflecting the development of the balance of payments.

3- Research Methodology

3.1 Standard Model Data Characterisation

To show the impact of the economic reform policies in Iraq on the trade balance, the foreign trade variables are represented by exports, imports, and net foreign trade (the trade balance). They were selected as dependent variables affected by the economic growth variables and the inflationary gap. They represent indicators of economic reform as independent variables. The linear formula that is consistent with the nature of economic relations between the variables has been chosen as follows:

$$r = \propto_0 + \propto_1 X + U_{1t} \quad (1)$$

$$r = \propto_2 + \propto_3 Z + U_{2t} \quad (2)$$

R= Economic Growth Rate,

X= Exports

Z= Trade Balance

$\propto s$, β s= Model Parameters

The economic theory indicates that the relationship between exports or net foreign trade as dependent variables and economic growth as an independent variable is a direct relationship, so it is expected that the parameters of the model will be positive, especially since Iraq's exports depend on oil, whose revenues are the main engine of economic activity in Iraq. Initially, the time series were analysed, and the degree of their integration and the extent of the inactivity of economic variables, as well as the use of co-integration analysis in Iraq depended on data of central bank of Iraq.

First: Autoregressive-Distributed Lag: (ARDL):

Pesaran & Shin introduced the ARDL method for co-integration in 1999, and then this method was further developed by Pesaran and Shin in 2001. The ARDL method is used according to several stages:

The co-integration is tested in the frame of the formulation of the unconstrained error correction model (UECM), which takes the following form:

$$\Delta Y_t = \lambda_0 + \lambda_1 Y_{t-1} + \lambda_2 X_{t-1} + \sum_{i=1}^{m} \beta_{1i} \Delta Y_{t-i} + \sum_{i=0}^{n} \alpha_{2i} \Delta X_{1t-i} + \varepsilon_t \quad (3)$$

Y: Dependent Variable.

X**:** Independent Variable

λ_1, λ_2: Long-term Relationship Transactions.

α, β: Short-term Relationship Information.

m,n: Variable Slow Intervals.

ε_t: It represents the random error term (white noise) with zero means, constant variance, and no sequential autocorrelation.

The model works under the following hypothesis:

Null Hypothesis: There is no co-integration (no long-run equilibrium relationship between the variables).

Alternative Hypothesis: The existence of co-integration between the variables (the existence of a long-term equilibrium relationship between the variables), For there to be a co-integration (long-term relationship) between the dependent variable and the independent variable $\boldsymbol{\lambda_1}$ (error correction factor) in the ARDL model must be characterised by two conditions: It be

insignificant or to be significant Because it λ_1 is significant and positive, there can be no error correction. To verify the existence of co-integration within the Unconstrained Error Correction Model introduced a modern approach known as the bounds testing approach, and to test the existence of a long-term equilibrium relationship between the model variables, we calculate the (F-statistic) through (Wald test) where the null hypothesis that there is no co-integration between the model variables is tested against the alternative hypothesis which states that there is a co-integration relationship in the long term between the level of the model variables. Through the Wald test, we compare the F-statistic with its tabular values at significance levels (1%, 5%, 10%) that consist of two terms, the first being the lower critical values (LCB) Lower Critical Bound, which assumes that the variables are integral of degree. The second is the upper limit of critical values (UCB) Upper Critical Bound, which assumes that the variables are integral to a degree. Annual time series data for the period 1990-2020 were used when estimating the relationships under study.

3.2. Analysis of Foreign Trade Variables in the Iraq Economy

The Iraq economy is a renter economy that depends on oil revenues in the formation of the gross domestic product and in the general budget of the state and the financing of government activity, meaning that it suffers from the control of crude oil as a raw material on more than (95%) of its exports. Which means the absence of commodity diversity for exports, while its imports constitute a large part of the various investment and consumer goods, i.e. the imbalance in the structure of foreign trade is due to the diversity of imports and the lack of variety of exports, and the imbalances in the gross domestic product in which the oil sector controls approximately (60%) of the output. The contribution of which decreases Other sectors such as industry and agriculture and the lack of interest in these sectors besides oil makes the Iraq economy unstable because the economy, by its nature, needs diversification in its external

and internal trade to advance the Iraqi economy (Maaleh and Salman, 2016), Therefore, it is necessary to shed light on the problems that Iraq's foreign trade suffers from, and its components will be analysed as follows:

3.2.1. Trade Balance Analysis

The net foreign trade represents the net difference between exports and imports, and this can be shown through the study periods as follows:

3.2.1.1 First Term: Extends from the Year (1990 - 2002)

The nineties period was characterised by foreign trade as being random and irregular due to the harsh political conditions that the Iraqi economy went through. It is represented by economic sanctions due to the invasion of Kuwait, as the period (1990-1996) during which Iraq witnessed international decisions characterised by its separation from the outside world and its foreign trade stopped almost completely (Ahmed and Mahmoud, 2014). It is noted from table 1. That the total foreign trade amounted to (16,840) million dollars during the year (1990). The trade balance amounted to a surplus of (3788) million dollars during the same year. The value of the total foreign trade decreased to reach (800) million dollars during the year (1992) the trade balance achieved a deficit of (46) million dinars due to the decrease in exports during this year and the increase in Iraqi imports. Perhaps the main reason for the decline in exports is the imposition of economic sanctions that restrict exports and imports. The reductions in total foreign trade continued until 1996 when the "oil for food" agreement was concluded during this year, through which the import of foodstuffs became linked to the ration card. Scientific agricultural research is directed towards new agricultural patterns in order to cover the local industry from raw materials that were imported from abroad (Hussein, 2009), and the total foreign trade amounted to (4263) million dollars during the same year, while the trade balance amounted to a deficit of (2801) million dollars, while during the year (1997) the total foreign trade amounted to (9021) million dollars to increase the total exports over imports, and the

trade balance achieved a surplus of 183 million dollars during the same year, and the increases in total foreign trade continued during the remaining period to reach (30067) million dollars during the year (2002), and a deficit in the trade balance amounted to (3567) million dollars.

Table 1. Total Foreign Trade and the Iraqi Trade Balance for the Period (1990 - 2002) Million Dollars

Year	Total Exports	Total Imports	Total Foreign Trade (Exports + Imports)	Trade Balance (Exports - Imports)
1990	10314	6526	16840	3788
1991	377	423	800	46
1992	518	603	1121	85
1993	457	533	990	76
1994	453	499	952	46
1995	496	665	1161	169
1996	731	3532	4263	2801
1997	4602	4419	9021	183
1998	5500	5983	11483	483
1999	13067	10917	23984	2150
2000	20830	13210	34040	7620
2001	16510	13832	30342	2678
2002	13250	16817	30067	3567

Source: (1), (2) Organization of Petroleum Exporting Countries, Annual Statistical Bulletin, miscellaneous issues, published on the website: www.opec.org, and- (3), (4) of the researcher's work.

3.2.1.2 Second Term: Extends from the Year (2003 - 2020)

The Iraqi economy after the year (2003) was characterised by a dangerous stage in terms of political, security, economic and social terms, and subjecting its market to the dumping process of most goods and the lack of quality control and control of goods imported from abroad, ambiguity about the methods of exporting Iraqi oil, which constitutes (95%) of the total exports, the absence of accurate statistical data on the important economic

determinants (Shendi, 2009), and the chaos that occurred after (2003) led to the destruction of economic sectors, including the agricultural sector, for reasons, the most important of which are the policy of dumping and the reluctance of farmers from agriculture due to low income, and the destruction of the industrial sector for reasons, the most important of which is the inability of public sector factories to compete with imported goods, and administrative and financial corruption, the net foreign trade for the second period can be shown in the table 2. which indicates the developments of the total foreign trade and the Iraqi trade balance for the period (2003-2020), as the total foreign exchange amounted to (19645) million dollars during the year (2003) and the trade balance amounted to a deficit of (223) million dollars as a result of the increase in Iraqi imports over total exports. While during the year (2004) the total foreign trade amounted to (39112) million dollars, and a deficit of the Iraqi trade balance amounted to (3492). The rises in the entire foreign exchange and the surplus of the Iraqi trade balance continued during the subsequent years until the year (2009), during which the total foreign trade amounted to a low value of (80942) million dollars and a deficit of the Iraqi trade balance of (2082) million dollars due to the economic crisis that the economy was exposed to. Globally, it led to a drop in oil prices to approximately (40) dollars after it was (148) dollars before the financial crisis of (2008), which caused a decrease in total exports from imports. In turn, it achieved a deficit in the Iraqi trade balance. With the improvement in oil prices and the increase in total exports over imports, the value of the total foreign trade increased to reach (142583) million dollars, with a surplus of the Iraqi trade balance of (25379) million dollars during the year (2014) and the total foreign trade recorded a decrease of (74967) million dollars during the year (2016) this is due to the decrease in total exports as a result of the decrease in the average price of a barrel of oil in global markets to (36) dollars per barrel compared to (44.7) dollars for the year (2015) (Central Bank of Iraq, 2016), while the Iraqi trade balance achieved a surplus of 6551 million dollars for the same year. As for the subsequent years, the trade balance recorded a

surplus for the years 2017, 2018, and 2019 due to the recovery in oil prices, but it recorded a deficit of (-1321) million dollars in 2020.

Table 2. Total Foreign Trade and the Iraqi Trade Balance for the Period (2003 - 2020) Million Dollars

Year	Exports	Imports	Total Trade	Net Trade Balance
2003	9711	9934	19645	-223
2004	17810	21302	39112	-3492
2005	23697	23532	47229	165
2006	30529	22009	52538	8520
2007	39529	19556	59085	19973
2008	63726	35012	98738	28714
2009	39430	41512	80942	-2082
2010	51764	43915	95679	7849
2011	79681	47803	127484	31878
2012	94209	59006	153215	35203
2013	89768	63320	153088	26448
2014	83981	58602	142583	25379
2015	43442	48010	91452	-4563
2016	40759	34208	74967	6551
2017	57559	37866	95425	19693
2018	86360	45736	132096	40624
2019	81585	58138	139723	23477
2020	46829	48150	94979	-1321

Source: (1), (2) Central Bank of Iraq, Department of Statistics and Research, Balance of Payments and Foreign Trade Department and (3), (4) of the researcher's work.

4- Analysis of Results

4.1. Standard Model Results

1- Time Series Static Test

It is a test that reveals whether or not the time series data are stable. To clarify the nature of the random unit root, the following equation is used:

$$Y_t = \rho Y_{t-1} + \upsilon_t \qquad -1 \leq \rho \leq 1 \qquad (4)$$

υ_t= The term of the random error with arithmetic mean equal to zero and a constant variance

σ^2 = This is known as (White Noise).

From the above equation, the null hypothesis is verified, and there are two hypotheses:

H_0 : $\rho=1$: The null hypothesis implies that the series has a unit root (unstable)

H_1 : $\rho<1$: The alternative hypothesis is that the series does not have a unit root (stable)

There are several tests to determine the acceptance or rejection of the null or alternative hypothesis. The most important is the simple and expanded Augmented Dickey-Fuller test. When the time series data are unstable, the random error term is not normally distributed. In 1979 created a test that requires an autoregressive test for each series with its first difference as a dependent variable. Then, inserted by decelerating one year as an independent variable depending on the following forms (Dickey & Fuller, 1979):

$$\Delta Y_t = \alpha_0 + \rho_1 Y_{t-1} + \beta.t + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-i} + \varepsilon_t \quad (5)$$

This test uses the same methodology as the simple model to verify the validity of the null hypothesis.

a- Extended Dickey-Fuller Test (ADF) Results

The results of table 3. indicate that the time series of the economic models (except for economic growth) to be estimated is not static in their levels because the absolute value of (τ) calculated is less than its tabular value in its complete form and its three cases (with a fixed limit and a time trend, with a fixed limit, and without a fixed limit and time direction). In comparison, the economic growth was static at the level because the calculated absolute value of (τ) is greater than its absolute tabular value. After taking the first difference for the non-static variables in their level and re-testing the expanded Dickey-Fuller, the all-time series became static at the first difference and in its three cases (a fixed limit and a trend time, and with a fixed limit, and without a fixed limit and time trend). This helps us choose the estimation method among the economic variables in the models mentioned above.

Table 3. Unit Root Test Using (ADF) for Study Variables

Variable	Level			First Difference		
	Without	Fixed Limit	Fixed Limit and Direction	Without	Fixed Limit	Fixed Limit and Direction
R	- 4.70	- 4.97	- 5.48	- 7.31	- 7.14	- 7.24
X	- 0.48	- 1.28	- 2.56	- 4.20	- 4.17	- 4.13
M	- 0.82	- 0.28	- 2.68	- 3.66	- 3.98	- 3.69
Z	- 1.64	- 1.55	- 2.08	- 5.12	- 4.99	- 4.95
Tabular Values						
٪1	-2.66	-3.72	-4.37	-2.66	-3.73	-4.39
٪5	-1.95	-2.98	-3.60	-1.95	-2.99	-3.61
٪10	-1.60	-2.63	-3.23	-1.60	-2.63	-3.24

Source: Prepared by the researcher based on the results of the statistical program.

2. Results of Estimating Economic Models

We will use two methods to estimate the economic relations between economic variables due to the different degrees of inactivity of the time series. We use the (ARDL) method when estimating the relationship between (exports or trade balance) and the economic growth rate.

a- Estimating the Relationship between the Economic Growth Rate, Exports, and Trade Balance.

We use the ARDL method in estimating the relationship, which is static at the level, and net exports, which have become static at the first difference. This method is carried out according to three stages. The first relates to tribal tests such as the unit root test, and the second stage estimates the model to know the significance of the correction coefficient and its sign if its sign is negative and significant. This indicates a long-term equilibrium relationship between the variables under study. The third stage is the dimensional test, including the stability test and the LM autocorrelation test.

Second: Results of the Boundary Test for Co-integration

The Bounds test approach was used to determine the co-integration, which

represents the long-run equilibrium relationship between exports (net exports) and economic growth. This method is based on the F test, where the null hypothesis (H0), which says that there is no co-integration between the model's variables, is tested against the alternative hypothesis (H1), which requires the existence of co-integration between the variables of the estimated model.

(1) Estimating the First Relationship

The relationship between economic growth (independent variable) and exports (dependent variable) can be estimated. Table 4. indicates the results of the co-integration test using the bounds test method, as the calculated value of the (F-statistic) test was more significant than the tabular upper bounds of its importance according to the size of the sample and degrees of freedom at a considerable level (1%,5%,10%), its value reached F= 6.788799, which means rejecting the null hypothesis and accepting the alternative hypothesis that implies the existence of a joint integration between economic growth and exports.

Table 4. The Bond Test of the Relationship between Economic Growth and Exports

Null Hypothesis: No long-run relationships exist

Test Statistic	**Value**	**K**
F-statistic	6.788799	1
Critical Value Bounds		
Significance	**10 Bound**	**l 1 Bound**
10 %	3.02	3.51
5 %	3.62	4.16
2.5 %	4.18	4.79
1 %	4.94	5.58

Source: Prepared by the researcher based on the results of the ARDL model estimated according to the Eviews 9 program.

2. Estimation of the Second Relationship

It represents the relationship between the economic growth rate and the trade balance. Table 5. Shows the joint integration test using the boundary test

method. The results indicate that the calculated value of the (F-statistic) test was greater than the tabular upper bounds of its values at a significant level (1%, 5% and10%), which reached (6.49). Therefore, the null hypothesis can be rejected and the alternative hypothesis accepted by co-integration between the estimated model variables.

Table 5. The Bond Test of the Relationship between Economic Growth and Net Exports

Null Hypothesis: No long-run relationships exist

Test Statistic	**Value**	**K**
F-statistic	6.497849	1
Critical Value Bounds		
Significance	**10 Bound**	**l 1 Bound**
10 %	3.02	3.51
5 %	3.62	4.16
2.5 %	4.18	4.79
1 %	4.94	5.58

Source: Prepared by the researcher based on the results of the ARDL model estimated according to the Eviews 9 program.

Second: Estimating the Error Correction Model and the Short and Long-term Relationship according to the ARDL Model

Determining the short and long-term relationship between economic growth, exports and trade balance is done by estimating the error correction model, which is the second step of the ARDL model, as follows:

(1) First Relationship

Table 6. Shows the error correction model and the short and long-term elasticities between economic growths and exports as follows:

Table 6. Co-integration Formula and Partial Elasticities in the Short and Long Term

ARDL Cointegrating and Long Run Form

Cointegrating from				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (X)	0.000099	0.000297	0.333	0.742
D (X(-1))	0.000953	0.000313	3.050	0.006
CointEq(-1)	-1.150682	0.242530	-4.744	0.0001
Cointeq= R – (-0.0002* × + 10.9873)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X	-0.000228	0.000130	-1.752	0.095
C	10.987350	5.478235	2.005	0.059

Source: Prepared by the researcher based on the results of the ARDL model estimated according to the Eviews 9 program.

The above table shows that the error correction coefficient [CoinEq (-1)] is negative and statistically significant, meaning a long-term relationship exists between economic growth and exports. Its value reached (-1.150682), meaning that the deviations in long-term economic growth were corrected at a rate of (-1.15) between the two periods. That exports have stabilised in the first difference, and that economic growth has stabilised at the level in which the error correction coefficient can be more significant than 100% means the speed of adjustment is very high, and this applies to the state of the Iraqi economy. The following can be inferred from the results of the assessment:

(a) It is evident from the table that the short-term transactions are very weak, which means that the increase in growth did not contribute to exports because oil exports constitute the largest part of them and depend on external demand as quantities and prices.

(b) There is no effect in the long term on the relationship between exports in economic growth because the parameter of exports was negative and very weak. After all, the production apparatus in Iraq is inflexible to stop most production activities, and oil revenues compensate for the shortfall in satisfying domestic demand.

(2) Second Relationship

Table 7. Shows the error correction model and the short and long-term flexibility among the studied variables, as follows:

Table 7. Demonstrates the Co-Integration Formula and Partial Elasticities in the Short and Long Term

Cointegrating From				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D (Z)	-0.000969	0.000452	-2.141	0.048
D (Z(-1))	0.002041	0.000423	4.825	0.0002
CointEq(-1)	-0.930647	0.198730	-4.682	0.0002
Cointeq= R – (-0.0009* Z + 10.0572)				
Long Run Coefficients				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
Z	-0.000935	0.000474	-1.973	0.066
C	10.057160	5.323372	1.889	0.077

Source: Prepared by the researcher based on the results of the ARDL model estimated according to the Eviews 9 program.

The results of the previous table indicate that the error correction coefficient [CoinEq(-1)] amounted to (-0.930647), as it is negative and statistically significant, which means that there is a joint integration between economic growth and the trade balance and that long-term deviation in economic development are corrected at a rate of (-0.93) between two periods of time, meaning that the speed of the adjustment towards the long-term equilibrium is 93% percent, which is a very high ratio between the trade balance and economic growth. We can infer from the results of the estimation the following:

(a) There is a very weak, negative, and moral effect of economic growth in the short term on the trade balance, as the value of short-term flexibility in the current year was (-0.001), and it was positive, moral, and feeble in the previous year, reaching (0.002). In other words, if growth increases by 100%, the trade balance will increase by 0.02%, a very low percentage.

(b) The presence of a weak and significant negative impact on the growth in the trade balance during the long term, as the partial elasticity of net exports, amounted to (-0.001). This means that an increase in growth by 100% leads to a decrease in the trade balance (0.002%). This is inconsistent with what the economic theory has said because the increase in growth must lead to an improvement in the trade balance due to the inflexibility of the production apparatus.

5. Conclusions

The international trade environment has witnessed successive changes throughout the history of international trade relations. Trade has played a vital role in all economies since ancient times, as its effects extend deep into the economies. It is crucial to consider the global economy and its rapid development and to keep up with technology and other technical capabilities. Therefore, the present study analyses the effect of economic reform policies on the liberalization of the trade balance in Iraq. Therefore, the study applies the ARDL method to estimate the relationship between (exports or trade balance) and the economic growth rate. And the Bounds test approach was used to determine the co-integration. The findings indicate that there is a significant negative association, which means there is a long-term relationship between them, but the relationship is very weak in the short term. Because the export parameter was weak and negative, there was no long-term impact on the link between exports and economic growth. Additionally, the results show the weak negative impact of economic growth on the trade balance in both the short and long term, which means that there is a joint integration between economic growth and the trade balance as the increase in growth leads to a decrease in the trade balance. This is inconsistent with what the economic theory says because the increase in growth must lead to an improvement in the trade balance due to the inflexibility of the production apparatus. And the results also suggest that the increase in growth did not help exports since oil exports account for most of

them. The increase in oil revenues due to the rise in oil prices did not enhance the implementation of economic reform programs but rather led to relaxation and reliance on these revenues in pursuing an expansionary spending policy that is not compatible with economic reform programs. Therefore, it is concluded that export policy in Iraq did not play a pivotal role in the foreign trade liberalisation programs, as there were many challenges that prevented the expansion and diversity of exports and international competition.

Policy Implications: Overall, the study suggests that Iraq's export policy did not play a pivotal role in the country's foreign trade liberalization programs due to several challenges. Therefore, policymakers should focus on export diversification, promoting trade agreements, investing in infrastructure, enhancing trade facilitation measures, increasing investment in human capital, and fostering a favourable business environment to boost Iraq's competitiveness in the global market and country's trade balance in the long term.

Recommendations: It is useless for Iraq to liberalise foreign trade on one side. Rather, it requires the presence of multiple parties who make similar concessions in light of the recommendations of international organisations.

- Those in charge of the economic policy should pay attention to the foreign trade liberalisation policy as much as they care to achieve economic growth and the stability of the currency value through coordination with the fiscal and monetary policy and be consistent with the followed trade policy.

Funding

This study received no financial support from any organization.

Authors' contributions

All authors had contribution in preparing this paper.

Conflicts of interest

The authors declare no conflict of interest

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