

Liberalization of Foreign Trade and Its Impact on the Macroeconomic Indicators of Iraq Economy for the Period 2003-2018

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This paper attempts to know the effect of liberalizing the foreign trade of Iraq economy, in some macroeconomic indicators such as (Gross domestic product growth, oil exports, non-oil exports) in developing countries With a special reference to the Iraqi economy with quarterly data covering the period Q1 2004 to Q4 2018. The indicators of trade openness were used to represent trade liberalization policies. For this purpose, three indicators of trade openness were used: the exports to gross domestic product index, and the imports to gross domestic product index. We have used a restricted VAR model to investigate the Liberalization of foreign trade on the macroeconomic indicators of Iraq economy. Our results confirmed that the policies of trade openness affected the gross domestic product and oil exports, while these policies had no effect on non-oil exports.

Key words: *Foreign trade liberalization, Iraq economy, trade openness.*

Introduction

Trade openness is one of the most important areas of interaction between the local economy and the global economy, because of the flow of goods and services involved. Many studies have confirmed that foreign trade, especially exports, is the engine of economic growth. Other studies have indicated that foreign trade is closely related to GDP. The economic literature confirmed that countries with high growth rates tend to export more goods.

The role of trade openness is a driver of economic growth because of its distinctive ability in the development process. The role of foreign trade is highlighted by creating a balance between inflexible productive supply and very flexible demand, as foreign trade creates jobs in society by reallocating capitals and jobs from the less productive sectors to the more productive sectors.

In Iraq, the process of trade openness did not come through gradual and organized measures, but rather came suddenly after the Iraqi economy, overnight, shifted from a centrally planned economy to a market economy, after the fall of the previous regime in 2003.

This paper attempts to answer a set of questions, the most important of which are: Did liberalization of foreign trade in Iraq contribute to increased exports? And if it is, what is the percentage of this increase? Was there an impact on the liberalization of foreign trade in all types of exports? Or focus the impact on oil exports only?

The hypothesis of the study is, the foreign trade liberalization did not contribute to increasing non-oil exports, and the impact of trade openness focused on increasing oil exports only.

Literature Review

We'll discuss the trade liberalization policies, gross domestic product, and export as most important variables in this paper, as follows:

Trade Liberalization Policies

Foreign trade is defined as the process of trade in goods, services, and other various elements of production between several countries with the aim of achieving mutual benefits for the parties to exchange. (Ros,2000:21)

Foreign trade has become an urgent necessity for all countries at the present time, because any country cannot achieve self-sufficiency of all goods and services and factors of production, because its economic conditions will not enable it to do so, as countries cannot produce all the goods and services they need for a long time, Consequently, it must specialize in the production of goods and services whose natural and economic conditions qualify them to produce and then exchange them with surplus products of other countries that cannot produce them within their borders or can produce them, but at a high cost it has better import from abroad than their production in the country and this is the basis for foreign trade between countries.

Foreign trade is of great importance in economic, social and political life, and this is represented in: - (Barro, 2004: 1)

- It is considered an outlet for spending excess production and obtaining hard currency.
- Foreign trade, especially exports, is a powerhouse for any country.
- Through which the state can obtain more goods and services at the lowest possible cost, according to the principle of specialization and division of labor.
- Foreign trade is considered a means to increase the national income of the country, and a means for economic development by importing semi-manufactured goods or machines, machines and equipment that go into the production process and that leads to an increase in the production of goods and services within the country, and thus achieving the desired economic development.
- Foreign trade is an indication of the country's productive and competitive ability in the international market.
- Foreign trade contributes to the transfer of modern technology that contributes to building developing economies and enhancing its economic development process.
- Foreign trade contributes to achieving balance in the internal market of countries as a result of the balance between the required and offered quantities of goods and services.
- It contributes to increasing the welfare of individuals, improving tastes, and satisfying the needs of individuals for goods and services.

Gross Domestic Product Growth

Why are some countries richer than others? Why do some economies grow faster than others? One can answer these questions at different levels, involving varying degrees of understanding. We begin at the more observable level by looking at what Abramovitz (1952) called the “immediate determinants” of output levels and growth rates. Immediately, a word of warning is necessary. These proximate determinants need not be independent of each other. They may not even be independent of per capita income levels and growth rates themselves. (Ros,2000:21)

To think about the importance of economic growth, we begin by assessing the long-term performance of the U.S. economy. The real precipitate gross domestic product (GDP) in the United States grew by a factor of 10 from \$3340 in 1870 to \$33,330 in 2000, all measured in 1996 dollars. This increase in per capita GDP corresponds to a growth rate of 1.8 percent per year. This performance gave the United States the second-highest level of per capita GDP in the world in 2000 (after Luxembourg, a country with a population of only about 400,000).

To appreciate the consequences of apparently small differentials in growth rates when compounded over long periods of time, we can calculate where the United States would have

been in 2000 if it had grown since 1870 at 0.8 percent per year, one percentage point per year below its actual rate. A growth rate of 0.8 per cent per year is close to that experienced in the long run—from 1900 to 1987—by India (0.64 percent per year), Pakistan (0.88 percent per year), and the Philippines (0.86 percent per year). If the United States had begun in 1870 at a real per capita GDP of \$3340 and had then grown at 0.8 percent per year over the next 130 years, its per capita GDP in 2000 would have been \$9450, only 2.8 times the value in 1870 and 28 percent of the actual value in 2000 of \$33,330. Then, instead of ranking second in the world in 2000, the United States would have ranked 45th out of 150 countries with data. To put it another way, if the growth rate had been lower by just 1 percentage point per year, the U.S. per capita GDP in 2000 would have been close to that in Mexico and Poland. Suppose, alternatively, that the U.S. real per capita GDP had grown since 1870 at 2.8 percent per year, 1 percentage point per year greater than the actual value. This higher growth rate is close to those experienced in the long run by Japan (2.95 percent per year from 1890 to 1990) and Taiwan (2.75 percent per year from 1900 to 1987). If the United States had still begun in 1870 at a per capita GDP of \$3340 and had then grown at 2.8 percent per year over the next 130 years, its per capita GDP in 2000 would have been \$127,000—38 times the value in 1870 and 3.8 times the actual value in 2000 of \$33,330. A per capita GDP of \$127,000 is well outside the historical experience of any country and may, in fact, be infeasible (although people in 1870 probably would have thought the same about \$33,330). We can say, however, that a continuation of the long-term U.S. growth rate of 1.8 percent per year implies that the United States will not attain a per capita GDP of \$127,000 until 2074 (Barro, 2004: 1)

Should we care about cross-country income differences? The answer is definitely yes. High income levels reflect high standards of living. Economic growth sometimes increases pollution or may raise individual aspirations, so that the same bundle of consumption may no longer satisfy an individual. But at the end of the day, when one compares an advanced, rich country with a less-developed one, there are striking differences in the quality of life, standards of living, and health. Understanding why some countries are so rich while some others are so poor is one of the most important, perhaps the most important, challenges facing social science. It is important both because these income differences have major welfare consequences and because a study of these striking differences will shed light on how the economies of different nations function and how they sometimes fail to function. (ACEMOGLU, 2009: 17)

Export

International trade based on the free exchange of goods started as early as 2500 BC. Archaeological discoveries indicate that the Sumerians of Northern Mesopotamia enjoyed great prosperity based on trade by sea in textiles and metals. The Greeks profited by the

exchange of olive oil and wine for grain and metal somewhere before 2000 BC. By around 340 BC, many devices of modern commerce had made their appearance in Greece and its distant settlements: banking and credit, insurance, trade treaties, and special diplomatic and other privileges. With the decline of Greece, Rome became powerful and began to expand to the East. In the first century AD, the Romans traded with the Chinese along the Silk Road and developed many trade routes and complex trading patterns by sea. However, the absence of peace made traveling unsafe and discouraged the movement of goods, resulting in the loss of distant markets. By the time of the breakup of the Roman Empire in the fifth century, the papacy (papal supremacy) had emerged as a strong institution in a new and unstable world. The church's support (sponsorship) for the crusades in the eleventh century revived international trade in the West through the latter's discovery and introduction of new ideas, customs, and products from the East. New products such as carpets, furniture, sugar, and spices brought from Egypt, Syria, India, and China stimulated the markets and the growing commercial life of the West. This helped Italian cities such as Venice and Genoa to prosper and to replace Constantinople as the leading center of international commerce. Letters of credit, bills of exchange, and insurance of goods in transit were extensively used to accommodate the growing commercial and financial needs of merchants and travelers. By the end of the fifteenth century, the center of international commerce had moved from the Mediterranean to Western Europe. Spain, Portugal, and later Holland became the focal points of international commercial activity. (Seyoum, 2009: 1).

International trade is the exchange of goods and services across national boundaries. It is the most traditional form of international business activity and has played a major role in shaping world history. It is also the first type of foreign business operation undertaken by most companies because import in order exporting requires the least commitment of, and risk to, the company's resources. For example, a company could produce for export by using its excess production capacity. This is an inexpensive way of testing a product's acceptance in the market before investing in local production facilities. A company could also use intermediaries, who will take on import-export functions for a fee, thus eliminating the need to commit additional resources to hire personnel or maintain a department to carry out foreign sales or purchases (Daniels and Radebaugh, 2004). International trade in services has grown over the past decade at an annual rate of about 18 per cent compared to that of approximately 9 per cent for merchandise trade. Trade in services constitutes 25 percent of overall world trade in 2004 (WTO, 2004a). In some countries, such as Panama and the Netherlands, services account for about 40 per cent or more of total merchandise trade. Typical service exports include transportation, tourism, banking, advertising, construction, retailing, and mass communication. (Ibid: 4)

Melitz (2003), motivated by the empirical findings regarding exporters described above, develops a monopolistic competition model of exporters with different productivities and

examines the effect of trade liberalization.³ To address simultaneously the empirical regularities concerning importers, we begin by extending his model to incorporate imported intermediate goods. In the model, the use of foreign intermediates increases a firm's productivity (because of increasing returns) but, due to fixed costs of importing, only inherently highly productive firms import intermediates. Thus, a firm's productivity affects its participation decision in international markets (i.e. importing inputs and/or exporting output) and, conversely, this participation decision (i.e. importing inputs) affects its productivity. (LAPHAM, 2008: 6)

In this environment, trade liberalization which lowers restrictions on the importation of intermediates increases aggregate productivity because some inherently productive firms start importing and achieve within-plant productivity gains. This, in turn, leads to a resource reallocation from less productive to more productive importing firms, enhancing the positive aggregate productivity effect. Furthermore, productivity gains from importing intermediates may allow some importers to start exporting, leading to a resource reallocation along the intensive margin.

In equilibrium, higher labor demand from new importers and exporters increases the real wage and, as a result, the least productive firms exit from the market. Thus, the model identifies an important mechanism whereby import tariff policy affects aggregate exports and this interaction is essential for understanding the impact of trade policy on aggregate productivity and welfare.

Trade Liberalization Policies in Iraq

Although Iraq is still an observer in the World Trade Organization and has not yet acquired the status of membership, the measures that it took after 2003 through the continuous pursuit of adopting a policy of the market mechanism and liberalizing its foreign trade by reducing the customs tariff on imported goods and services and the resulting The dumping of the local market with various types of imported goods and services, with a continuous decline in local production of agricultural and industrial goods, and this had a negative impact on the non-oil trade balance, despite its trade balance (oil and non-oil) has witnessed a continuous surplus (except for 2009) which is Year of Followed by the global financial crisis, which caused a decline in oil prices, but its balance of trade non-oil deficit continued to suffer from a constant for the duration of the search. Explains that appears in Table (1), and this indicates that the procedures for liberalizing foreign trade did not affect positively the trade balance in Iraq, and they still constitute (4%) of the total exports.

Table 1: Iraq Balance of trade (2005-2018) (Millions USD)

year	Export	Import	Balance of trade	Surplus or deficit
2004	20610	21302	-692	Deficit
2005	23697	23532	165	Surplus
2006	30529	22009	8520	Surplus
2007	39587	19556	20031	Surplus
2008	63726	35012	28714	Surplus
2009	3943	41512	-37569	Deficit
2010	51764	43915	7849	Surplus
2011	79681	47803	31878	Surplus
2012	94209	59006	35203	Surplus
2013	89768	59349	30419	Surplus
2014	85369	58602	26767	Surplus
2015	51328	4801	46527	Surplus
2016	41298	34208	7090	Surplus
2017	57559	38766	18793	Surplus
2018	87260	45736	41524	Surplus

Source: Central Bank of Iraq - General Directorate of Statistics and Research for various years:

Iraq Gross Domestic Product Growth

By noticing the GDP trends shown in Table -2- we find that it has continued to increase during the period (2004-2018) and with high growth rates, except for the years (2009 and 2015), in 2009 the reason was the global financial crisis that occurred in 2008 and led The oil prices decreased significantly, and this led to a decrease in the volume of Iraqi exports, as oil constitutes a percentage (96%) of them. As for the year 2015, the reason was also due to the decline in international oil prices. Table -2 and figure -1- show the GDP trends in the duration of the research.

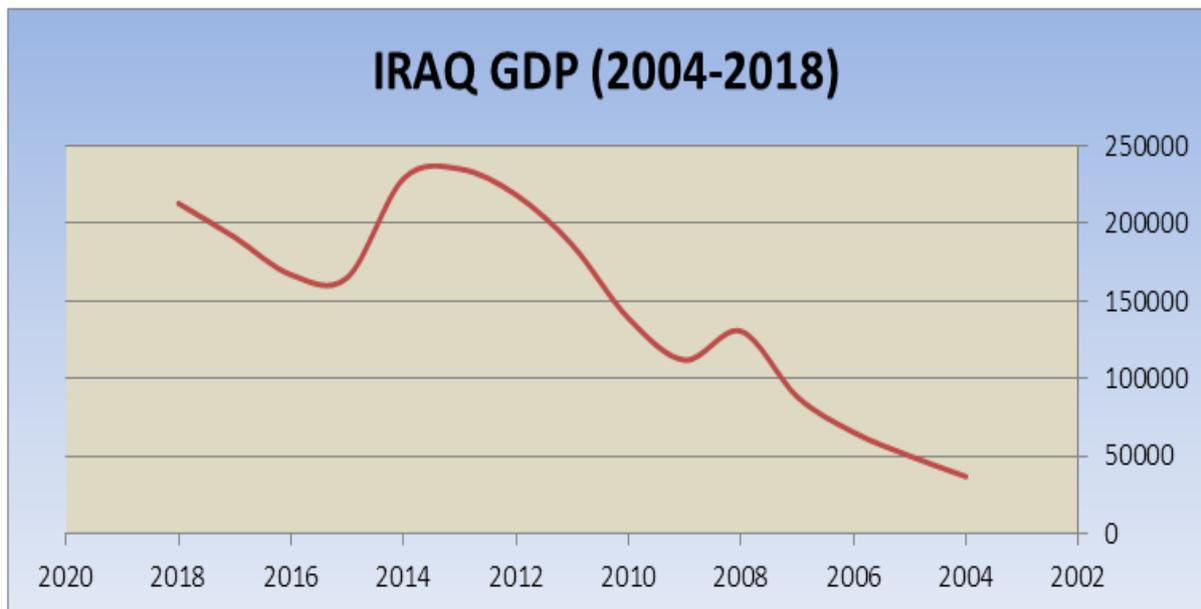
Table 2: Iraq Gross domestic product(2005-2018) (Millions USD)

year	GDP
2004	36613
2005	49921
2006	65158.8
2007	88037.8
2008	130204
2009	111660.9

2010	138516.7
2011	185749.7
2012	218032.2
2013	234637.7
2014	228415.7
2015	164704.7
2016	166602.5
2017	190643.9
2018	212406.5

Source: Central Bank of Iraq - General Directorate of Statistics and Research for various year.

Figure 1. Iraq GDP trends (2004-2018)



Empirical Methodology

A common assumption in many time series techniques is that the data are stationary.

A stationary process has the property that the mean, variance and autocorrelation structure do not change over time. Stationary can be defined in precise mathematical terms, but for our purpose we mean a flat looking series, without trend, constant variance over time, a constant autocorrelation structure over time and no periodic fluctuations (seasonality).

For practical purposes, stationary can usually be determined from a run sequence plot.

In our variables, we notice that all-time series are stationary in first difference I, so we can use Vectors autoregressive model (VAR) for two reasons:

1. In our model we have more one dependents variables.
2. Because of all variables in first difference (Sims, 1980: 1-48)

Table -3- shows the results of stationary by Augmented Dickey-Fuller Test.

Table 3: Stationary test results

Unit Root Test Results Table (ADF)						
Null Hypothesis: the variable has a unit root						
					<u>At Level</u>	
GDPG	IMPORT	EXPORT	ETG	ITG		
-2.6392	-2.3552	-1.9783	-3.3820	-2.9954	t-Statistic	With Constant
0.1088	0.1701	0.2916	0.0305	0.0598	Prob.	
n0	n0	n0	**	*		
-3.2730	-2.3706	-2.3664	-3.4283	-4.0457	t-Statistic	With Constant & Trend
0.1112	0.3759	0.3777	0.0879	0.0391	Prob.	
n0	n0	n0	*	**		
-2.3239	-0.4922	-0.2318	-1.0599	-2.0073	t-Statistic	Without Constant & Trend
0.0242	0.4843	0.5846	0.2467	0.0463	Prob.	
**	n0	n0	n0	**		
					<u>At First Difference</u>	
d(GDPG)	d(IMPORT)	d(EXPORT)	d(ETG)	d(ITG)		
-4.8404	-4.5162	-3.8562	-5.1717	-4.0204	t-Statistic	With Constant
0.0027	0.0046	0.0142	0.0016	0.0107	Prob.	
***	***	**	***	**		
-4.7137	-3.2275	-3.6619	-5.0502	-4.1338	t-Statistic	With Constant & Trend
0.0130	0.1302	0.0643	0.0078	0.0315	Prob.	
**	n0	*	***	**		
-4.9985	-4.6635	-3.8987	-5.3822	-4.0143	t-	Without Constant &

					Statistic	Trend
0.0001	0.0002	0.0009	0.0001	0.0007	Prob.	
***	***	***	***	***		
Notes:						
a: (*)Significant at the 10%; (**)Significant at the 5%; (***) Significant at the 1% and (no) Not Significant						
b: Lag Length based on SIC						
c: Probability based on MacKinnon (1996) one-sided p-values.						

Source: From the researcher's work based on the results of the EVIEWS 9.

Before apply VAR model, we should see lag order by VAR Lag order selection criteria, table -4- shows that all criteria select one lag.

Table 4: VAR Lag Order Selection Criteria

VAR Lag Order Selection Criteria						
Endogenous variables: ITG ETG EXPORT IMPORT GDPG						
Exogenous variables: C						
Date: 03/23/20 Time: 15:58						
Sample: 1 15						
Included observations: 14						
HQ	SC	AIC	FPE	LR	LogL	Lag
37.26596	37.51532	37.28709	1.08e+10	NA	-256.0096	0
32.48045*	33.97662*	32.60721*	1.34e+08*	66.01046*	-198.2505	1
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

Source: From the researcher's work based on the results of the EVIEWS 9.

The model has no serial correlation and Heteroskedasticity, after make the test of VAR Residual Serial Correlation LM Tests and VAR Residual Heteroskedasticity Tests .

Now the form is ready to be estimated through VAR. Table -5- shows the results of model as follow:

1. The impact of import/FDP to imports is over than the impact of import/FDP to export, that because the Iraq economy is rental economy dependents on oil sector.
2. The impact of import/FDP to GD is over than the impact of export/FDP to GDP, that mean most of .This means that most of the increase in gross domestic product goes to imports, not investment. This is one of the most important problems facing the Iraqi economy, which has remained since 2003 and the present day has focused on its foreign trade on imports. The oil sector remained the only sector that provides about (96%) of Iraqi budget revenues.
3. There is no impact of GDP on export, because The lack of flexibility of the production system, as well as the dependence of the Iraqi economy on the outside in providing consumer goods.

Table 5: VAR results

Vector Autoregression Estimates					
Date: 03/23/20 Time: 15:59					
Sample (adjusted): 2 15					
Included observations: 14 after adjustments					
Standard errors in () & t-statistics in []					
GDPG	IMPORT	EXPORT	ETG	ITG	
-0.936781	144523.0	-40706.78	-0.250231	1.577572	ITG(-1)
(1.53028)	(111920.)	(224845.)	(1.15262)	(0.47862)	
[-0.61216]	[1.29131]	[-0.18104]	[-0.21710]	[3.29611]	
0.870656	-356885.3	-92347.33	0.984292	-1.978696	ETG(-1)
(1.99481)	(145895.)	(293100.)	(1.50251)	(0.62391)	
[0.43646]	[-2.44618]	[-0.31507]	[0.65510]	[-3.17146]	
-1.09E-05	1.752885	0.350368	-5.77E-06	1.05E-05	EXPORT(-1)
(1.2E-05)	(0.86061)	(1.72896)	(8.9E-06)	(3.7E-06)	
[-0.92444]	[2.03679]	[0.20265]	[-0.65071]	[2.85838]	
7.38E-06	-1.866969	0.486800	6.99E-06	-1.54E-05	IMPORT(-1)
(1.5E-05)	(1.11938)	(2.24882)	(1.2E-05)	(4.8E-06)	
[0.48201]	[-1.66785]	[0.21647]	[0.60639]	[-3.22734]	
0.238449	110467.9	32167.44	-0.253808	0.599486	GDPG(-1)
(0.55198)	(40370.5)	(81103.6)	(0.41576)	(0.17264)	
[0.43199]	[2.73635]	[0.39662]	[-0.61047]	[3.47245]	

0.350595	88346.19	62152.93	0.161283	0.462794	C
(0.33327)	(24374.5)	(48968.0)	(0.25102)	(0.10424)	
[1.05198]	[3.62453]	[1.26926]	[0.64251]	[4.43989]	
0.576001	0.612814	0.458490	0.234693	0.811116	R-squared
0.311001	0.370823	0.120046	-0.243624	0.693064	Adj. R-squared
0.250144	1.34E+09	5.40E+09	0.141912	0.024470	Sum sq. resid
0.176828	12932.68	25981.52	0.133188	0.055305	S.E. equation
2.173592	2.532384	1.354699	0.490664	6.870812	F-statistic
8.308283	-148.4930	-158.2598	12.27608	24.58054	Log likelihood
-0.329755	22.07043	23.46569	-0.896582	-2.654363	Akaike AIC
-0.055873	22.34431	23.73957	-0.622701	-2.380482	Schwarz SC
0.153741	38129.07	57122.71	0.370069	0.262830	Mean dependent
0.213030	16304.30	27697.11	0.119432	0.099826	S.D. dependent
			22526192		Determinant resid covariance (dof adj.)
			1372453.		Determinant resid covariance
			-198.2505		Log likelihood
			32.60721		Akaike information criterion
			33.97662		Schwarz criterion

Source: From the researcher's work based on the results of the EVIEWS 9.



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