

The possibility of activating trade exchange among Egypt and the Group of Seven (G7) countries (Previously group of eight (in the most important agricultural commodities

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ABSTRACT— The Group of Seven (G7) countries are known as the Group of Seven industrialized countries, where its includes the major industrialized countries in the world, represented by the United States of America, Japan, Germany, Italy, United Kingdom, France, and Canada. This group controls about 14% of the world's population, and 65% from the global economy. The study aims at the possibility of increasing Egyptian foreign trade in the light of what the country's plan 2030 targets, in terms of economic reform. This can be achieved through the possibility of activating foreign trade among Egypt and the Group of Seven countries, and the resulting economic effects that benefit the Egyptian trade balance. The research method is based on a study of the most important economic indicators among Egypt and the Group of Seven countries, as well as a study of the current state of intra-trade, the degree of current commercial compatibility, the matrix of exports and imports, and the opportunities of expected trade integration among Egypt and the Group of Seven countries through percentages and averages Calculation, use law of degree of commercial compatibility, and Calculation of Commercial integration opportunities, for the most important commodities that Egypt imports such as wheat, Maize, red meat, white meat and oils, as well as the most important commodities exported from Egypt, which are oranges, onions, potatoes and sugar. The most important results were that America is the highest country that exports maize among the under study countries, as Egypt is the highest country importing maize, so the cooperation between the two countries regarding the United States' export of corn, white meat and wheat at a low price to Egypt leads to reducing the Egyptian trade balance deficit about (24%, 9%, 25%) respectively. Consequently, the trade balance deficit is reduced by 58% for the three crops.

KEYWORDS: The Group of Seven Countries, Trade exchange among Egypt and the group of Seven countries, The commercial compatibility degree.

1. INTRODUCTION

The Group of Seven countries was known as the Group of Eight industrialized countries, where it includes the major industrialized countries in the world, represented by the United States of America, Japan, Germany, Italy, United Kingdom, France, and Canada. Russia left the group, and the group became only seven countries, this group controls about 14% of the world's population, and 65% From the global economy, and 46% of global nominal GDP (compared to 13% of the world's population and 62% of global nominal GDP in 1980), as a flexible body for discussing issues of common concern to participating countries as less consensual topics, and the G7, such as the G20, Has no permanent trust or legal status. It also ranks the first in its spending on military armament, as well as nuclear weapons globally, with the first four countries represented by the United States of America, United Kingdom, France, and Russia are controlling about 98% of nuclear weapons globally. The group's activities are limited to the work of conferences throughout the year, political research centers, and the outputs of these activities are gathered at the annual summit attended by the leaders of the

state's members, and the European Union is also represented in these summits. The states members of the group rotate annually to head the group starting from January 1 of each year. In 2014, Russia's membership in the Group of Eight was suspended, due to its interference in the Ukrainian crisis, and the annexation of the Crimean Peninsula. Since Russia's membership in the group was frozen, the group became known as the Group of Seven countries, and the British capital London replaced the Russian city of Sochi to host the summit in 2014 [2].

1.1 The study Problem

Despite, the increase in the rate of change in both Egyptian exports and imports by about 904.7%, 529.6% in 2017 compared to 2015, However, the value of the Egyptian Trade Balance decreased by 23.1% in 2017 compared to 2015 [5].

1.2 Aim of the study

The study aims at the possibility of increasing Egyptian foreign trade in the light of what the country's plan 2030 targets, in terms of economic reform. This can be achieved through the possibility of activating foreign trade among Egypt and the Group of Seven countries, and the resulting economic effects that benefit the Egyptian trade balance.

1.3 Research method and data sources

The research method is based on a study of the most important economic indicators among Egypt and the Group of Seven countries, as well as a study of the current state of intra-trade, and Calculation of Commercial integration opportunities, for the most important commodities that Egypt imports such as wheat, Maize, red meat, white meat and oils, as well as the most important commodities exported from Egypt, which are oranges, onions, potatoes and sugar. The study also depends on the data which collected of World Bank, the United Nations, the [1], as well as some websites that dealt with key information for the Group of Eight countries.

- Comparison of the most important economic indicators among Egypt and the Group of Seven countries (³)

- The area (km²)

The total area of Egypt during the study period average reached about 1 million km², meaning that the total area of Egypt is reduced by 89.8% over the area of the United States and Canada, while the area of Egypt increases by 82.1%, 164.6%, 180.1%, 232.2%, 311.5% from The area of France, Japan, Germany, Italy, and United Kingdom as shown in Table (1).

- The total population (per million people)

The total population in Egypt during the study period average was about 89.484 million, where the Egyptian population is about 71.8% and 29.8% lower than the United States and Japan population, while it is about 38.9%, 35.4%, 9.9%, 48.8%, 60.6% of United Kingdom, France, Germany, Italy, Canada, as shown in Table (1).

1.4 Gross domestic product (GDP) growth per year

The growth of the Egyptian GDP during the average study period reached about 3.1%, it is increase of about 0.9%, 1.7%, 1.8%, 1%, 2.9%, 0.8% and 2.1% compared to the growth rate of the GDP in the United States, the United Kingdom, France, Germany, Italy, Canada and Japan, respectively, as shown in Table (1).

- Per capita of gross domestic product (current prices US \$) thousand dollars

The Egyptian individual's share of the gross domestic product during the average study period reached about 3.177 thousand dollars annually, with a decrease of 94.1%, 92.6%, 92.4%, 92.9%, 90.7%, 93.4%, 92.3% compared to the per capita of gross domestic product in The United States, United Kingdom, France, Germany, Italy, Canada and Japan, respectively, as shown in Table (1).

- Per capita of national income (current prices, US \$)

The Egyptian individual's share of the gross national income during the average study period reached about \$ 2.941 thousand annually, with a decrease of about 94.5%, 93.0%, 93.0%, 93.6%, 91.5%, 93.8%, 93.3% compared to the per capita of the gross national income in The United States, United Kingdom, France, Germany, Italy, Canada and Japan, respectively, as shown in Table (1).

- Value added in the agricultural sector (% of GDP)

The percentage of value added in the agricultural sector during the average study period reached about 12.0% of the total Egyptian GDP, an increase estimated at 10.9%, 11.6%, 10.6%, 11.3%, 10.1%, 10.6%, 10.9%, compared to the value added in Agriculture sector of the gross domestic product in the United States, United Kingdom, France, Germany, Italy, Canada and Japan, respectively, as shown in Table (1).

- Annual inflation %

The inflation rate reached about 12.5% during the average study period, with an increase of about 10.9%, 10.8%, 11.7%, 12.0%, 11.7%, 10.8% and 12.4%, compared to the annual inflation rate in the United States, United Kingdom, France, Germany, Italy, Canada, and Japan respectively, as shown in Table (1).

- Total capital formation (% of GDP)

The percentage of capital formation from the gross domestic product of Egypt during the average study period was about 15.6%, with a decrease of about 4.5%, 0.9%, 7.1%, 4.2%, 2.6%, 8.5%, 7.5%, compared to the percentage of capital formation of the gross domestic product in the United States, United Kingdom, France, Germany, Italy, Canada and Japan, respectively, as shown in Table (1).

- Foreign direct investment (billion dollars)

The total volume of Egyptian foreign direct investment during the average study period reached about 4.118 billion dollars, an increase of about 6.0%, 1.1%, and 26.7% compared to the total amount of foreign direct investment in the United States, France and Japan, while it decreased by 20.2%, 24.6%, 32.9%, 45.5%, compared to the total foreign direct investment in the United Kingdom, Germany, Italy and Canada, respectively, as shown in Table (1).

- Exports of goods and services (% of GDP)

The percentage of exports of Egyptian goods and services of the gross domestic product reached about 16.2% during the average period of the study, which was equal to the proportion of exports of Japanese goods of the gross domestic product, while it increased by 3.4% compared to the percentage of US goods exports of the gross domestic product, as it decreased by 12.8% , 13.2%, 29.3%, 12.5%, 14.5% in all of the United Kingdom, France, Germany, Italy, and Canada compared to the ratio of commodity exports of GDP, respectively, as shown in Table (1).

- Imports of goods and services (% of GDP)

The percentage of imports of Egyptian goods and services of the gross domestic product reached about 24.1% during the average period of the study with an increase of about 8.1%, 7.4% compared to the ratio of imports of goods and services of the gross domestic product in both America and Japan, while it decreased by 6.5%,

6.4% , 14.8%, 3.2%, 8.5% in all of the United Kingdom, France, Germany, Italy, and Canada compared to the ratio of imports and goods of GDP, respectively, as shown in Table (1).

Table (1) The most important economic indicators of The Seven countries group and Egypt during the average period 2010-2017

The indicator	United States	United Kingdom	France	Germany	Italy	Canada	Japan	Egypt
The area per km	9.83151	243.61	549.087	357.341	301.34	9.98467	377.963	1.00145
The total population per million people	317.273	64.406	66.083	81.375	60.152	35.241	127.397	89.484
GDP growth% per year	2.2	1.4	1.3	2.1	0.2	2.3	1	3.1
Per capita of gross domestic product (current prices US \$) per thousand dollars	53.904	42.766	41.841	44.6	34.116	48.235	41.34	3.177
Per capita of national income (current prices, US \$)	54.393	42.046	42.121	46.023	34.675	47.786	43.403	2.941
Value added in the agricultural sector (% of GDP)	1.1	0.6	1.6	0.7	1.9	1.6	1.1	12
Annual inflation %	1.6	1.7	0.8	0.5	0.8	1.7	0.1	12.5
Total capital formation (% of GDP)	20.1	16.5	22.7	19.8	18.2	24.1	23.1	15.6
foreign direct investment	3.869	5.158	4.072	5.46	6.14	7.561	3.02	4.118
Goods and services exports (% of GDP)	12.8	29	29.4	45.5	28.7	30.7	16.2	16.2
Goods and services imports (% of GDP)	16	30.6	30.5	38.9	27.3	32.6	16.7	24.1

Source: Calculated and compiled from the World Bank website.

- Trade exchange among Egypt and the Group of Seven countries during the average period 2010-2017
The study of trade exchange for Egypt and the Group of Eight showed that the maximum value of Egyptian

exports amounted to about 3126.75, 2389.75, 1873.67, and 1163.89 million dollars for Italy, United States, the United Kingdom, and France, while Egyptian imports amounted to a maximum value of about 7350.44, 6391.47, 5877.17, 2467.58 million dollars for United States, Italy, Germany, and England, respectively, as shown in Table (2).

Table No. (2) The trade exchange among Egypt and the Seven countries group during the average of the period 2010-2017.

Country	Exports per million dollars	imports per million dollars
Canada	128.56	448.53
France	1163.89	2380.14
Germany	953.97	6391.47
Italia	3126.75	5877.17
England	1873.67	2467.58
USA	2389.75	7350.44
Japan	162.44	1739.56

Source: Central Agency for Public Mobilization and Statistics data, different volumes

- Quantity and value of Egypt and G7 countries exports and imports of commodities under study during the period (2010-2017)

First - The quantity and value of exports

Table (3) shows that the United States exports topped the quantity and value of exports of maize, white meat, and wheat, with exports amounting to 44,487 thousand tons, 180.1 thousand tons, 27205.3 thousand tons, with a total export value of about 10041 million dollars, 382 million dollars. 27205.3 Thousand dollars, at an export price of about 226 dollars / ton, 2122 dollars / ton, and 283 dollars / ton, respectively. While Canadian exports reached the highest in both the amount and value of red meat and potatoes, which amounted to about 259.6 thousand tons, 1156.1 million dollars at an export price of 4453 dollars / ton for red meat, and about 525.7 thousand tons, 199.0 million dollars at an export price of about 379 dollars / ton for potatoes. Japan's exports also reached the highest in oils, which amounted to about 304.4 thousand tons, 449.9 million dollars, at an export price of about 1478 dollars / ton. As for Egyptian Exports is topped in each of oranges, onions, sugar, which amounted to about 834.8 thousand tons, 433 thousand tons, 248 thousand tons, with a total export value of about 482 million dollars, 198 million dollars, 154 million dollars, at an export price of about 578 dollars / ton, 458 Dollars per ton, \$ 621 per ton, respectively, as shown in Table (3).

Second: The quantity and value of imports:

Table (4) shows that Egypt is the most important importer of Maize, red meat and wheat, with a quantity of imports amounting to 7259.3 thousand tons, 192.3 thousand tons, 10654.2 thousand tons, with a value of imports amounting to 1745.5 million dollars, 864.9 million dollars, 2814.4 million dollars, at an Import price amounted to about \$ 240 / ton, \$ 4,498 / ton, \$ 264 / ton, respectively. As for United Kingdom, its imports reached the highest in white meat in quantity and value. Imports amounted to about 307.6 thousand tons, 922.8 million dollars, and an Import price of 3000 dollars / tons. While Italy topped imports of oil and sugar with an amount of imports amounting to 1761.7 thousand tons, 1245.4 thousand tons, and the value of imports amounted to 1541.6 million dollars, 878.8 million dollars, and an import price of about 875 dollars / tons, 706 dollars / tons respectively. As for Germany, it dominated the imports of potatoes and oranges with a quantity of imports amounting to 678.2 thousand tons, 488.1 thousand tons, and the value of imports amounted to

about 269.5 million dollars, 396.7 million dollars, and the import price of about 397 dollars / tons, 813 dollars / tons each of them respectively. While United States is dominating of onion imports with a quantity and value of imports amounted to about 458.1 thousand tons, 361.6 million dollars, and an import price of about 789 dollars / tons as shown in the aforementioned table.

Table (3) the quantity and value of the exports of the Seven countries group and the Egyptian exports of the under study commodities during the average period (2010-2017). The Quantity per tons, the value per million dollars and the ton price per dollars

Country	Maize			red meat			white meat			oil s			Wheat		
	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton
Egypt	10.2	2.5	245	0.034	0.076	2235	0.885	2.4	2712	2.3	6	2609	0.659	0.172	261
Canada	1271	340.2	268	259.6	1156.1	4453	115.2	197.7	1716	100.2	103.2	1030	20246.1	5747.7	284
France	6022.4	2066.4	343	182.3	737.4	4045	60.1	156.1	2597	162.7	400.5	2462	18915.2	4826.3	255
Germany	664.1	237.3	357	192.3	847.4	4407	174	391.6	2251	62.8	86.2	1373	8767.1	2237.1	255
Italia	85.2	26.3	309	50.8	174.3	3431	20.8	74.6	3587	153.7	194.6	1266	405.7	158.8	391
England	100.8	25.9	257	46.3	159.2	3438	43.2	121	2801	53.7	80.6	1501	1784.2	407.3	228
USA	44487	10041	226	113.5	541.6	4772	180.1	382.1	2122	40.5	118.1	2916	27205.3	7686.9	283
Japan	19.4	5.4	278	0.035	0.076	2171	1.1	1.6	1455	304.4	449.9	1478	-	-	-

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) -<http://comtrade.un.org>)

Continued Table 3

Country	potato			orange			onion			Sugar		
	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton
Egypt	507.1	213.5	421	834.9	482.3	578	433.2	198.2	458	248.9	154.5	621
Canada	525.7	199	379	0.033	0.029	879	55.7	34.4	618	48.7	36.8	756
France	19.2	10.5	547	43.3	40.9	945	87.3	50.1	574	20.5	13.2	644
Germany	18.1	10	552	34.3	31.5	918	82.9	34.8	420	10.2	6.9	676
Italia	129.5	72.2	558	131.4	113.4	863	43	42.9	998	49.1	40.5	825

England	296.5	156.5	528	32.8	18.3	558	7.6	5.5	724	20.1	14.4	716
USA	454.4	204.5	450	637.8	615.9	966	338	232.4	688	143.4	125.1	873
Japan	0.046	0.018	391	0.027	0.022	815	0.005	0.002	400	1.3	1	769

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) -<http://comtrade.un.org>

Table (4) the quantity and value of the imports of the Seven countries group and the Egyptian imports of the under study commodities during the average period (2010-2017) The Quantity per tons, the value per million dollars and the ton price per dollars

Maize			red meat			white meat			oils			Wh	
Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	V
259.3	1745.5	240	192.3	864.9	4498	99.3	198.5	1999	1123.6	1266.2	1127	10654.2	2
109.2	339.4	306	146.1	555.2	3800	157.2	388.5	2471	136.9	170.8	1248	88.8	2
95	294.7	595	99	302.5	3056	53.8	154.3	2868	755.9	789	1044	568.5	1
318.2	790.6	341	138.6	605.2	4367	196.3	588.8	2999	1672.4	1620.6	969	4196	1
727	914.5	245	62.9	220.3	3502	23.5	68.3	2906	1761.7	1541.6	875	7057.1	2
635.2	430.3	263	58.2	270.3	4644	307.6	922.8	3000	845.8	877.8	1038	1681.9	5
367.9	691.8	506	68.1	258.8	3800	33.4	99.5	2979	1341.4	1274.6	950	2673.3	7
5	4.1	273	1.8	6.2	3444	31.9	71.2	2232	650.6	609.9	937	5787.8	1

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) -<http://comtrade.un.org>

Continued Table 4

Country	potato			orange			onion			Sugar		
	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price per ton	Quantity	Value	Price to
Egypt	161.9	80.9	500	0.192	0.133	693	0.492	0.269	547	166.9	106.7	633
Canada	245.5	95.3	388	195.2	182.1	933	181.3	139.4	769	34.7	31.9	915
France	417.2	187.7	500	472.3	409.4	867	125.2	79.5	635	273.9	236	862
Germany	678.2	269.5	397	488.1	396.7	813	244.5	163.2	667	539.5	426.3	790
Italy	651.8	217.1	333	173.7	125.4	722	67.3	30	446	1245.4	878.8	700
England	300.3	148.4	494	280.6	219.4	782	325.3	191.2	588	326.6	241.4	735
USA	439.4	177.3	404	139.6	118.7	850	458.1	361.6	789	1017.2	755.3	743
Japan	19.5	10.9	559	103.4	93.1	900	322.6	158.6	492	9	11.5	127

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) -<http://comtrade.un.org>

- Egyptian Trade Balance:

The average of the total trade during the study period amounted to about 2675 billion dollars, representing the value of both imports and exports about 59.1%, 40.9%, respectively, with a total deficit value of about 487 billion dollars, as shown in table (5), which also shows that the percentage of the deficit reached a maximum in Each of the wheat, oil and Maize with a total deficit rate of about 74%, as shown in the table, follows the

importance of red meat , white meat and sugar by about 11%, 9%, 3%, and finally potato, onions and orange by 1, 0.7%, 0.2%, respectively of the total value of trade balance deficit.

Table (5) The ratio of the under study crops imports value of the total Egyptian trade balance deficit per billion dollars during the average of the period 2010-2017

crop The	% Of the total deficit
Maize	24
meat Red	11
White meat	9
Oils	25
Wheat	25
potato	1
Orange	0.2
Onions	0.7
Sugar	3
Total deficit value	487-

Source: Central Agency for Public Mobilization and Statistics data, different volumes

- Matrix of Egypt's imports and exports with the Group of seven countries during the average period (2012-2017):

Table (6) shows the quantity and value of the Egyptian imports and exports matrix from the Group of G7 countries for the under study commodities, as for imports it was found that Egypt imports wheat and Maize from each of America, Canada, France in quantities and value amounting to 233 thousand tons, 228 thousand tons, 225 thousand tons, And about \$ 93 million, \$ 78 million, \$ 75 million respectively for wheat, at a price of one ton is about \$ 399, \$ 342, \$ 333, respectively more than the world price of wheat import about 22.8%, 5.2%, 2.5% respectively. As for Maize, the amount and value of imports is 289 thousand tons and 87 million dollars at a price of 301 dollars per ton for America, 14 thousand tons for each of Canada and France, with a value of 4 million dollars, 3 million dollars, at a price of ton about 286 dollars, 214 dollars higher than The world export price is about 17.1%, 11.3% for America and Canada, and it is lower than the world export price for Maize about 16.7%, for France. As for oils, it was found that France and Germany are the most important exporting countries to Egypt, where the amount of imports reached about 0.99 thousand tons, 0.67 thousand tons, and their value is about 0.85 million dollars, 0.52 million dollars, at a price of one ton about 859 dollars, 776 dollars less than the world price by about 56.8 %, 60.9%, respectively. Also America is the most important exporting country of white meat to Egypt, with a quantity and value of imports of about 0.49 thousand tons, 0.96 million dollars, at a price of one ton, is about 1959 dollars, which is less than the world export price by 0.61%, As for red meat it was revealed that Egypt did not import from the group's countries the red meat.

- The matrix also shows the quantity and value of Egyptian exports to the seven countries for the under study commodities, it was found that France is the most important importing country of Egyptian sugar by about 1.513 thousand tons, 0.72 million dollars, at an export price per ton amounted to about 476 dollars per ton , it less than the world price by about 54.3%, also United Kingdom is one of the largest importing country

for both onions and oranges, with a quantity and value of about 17 thousand tons, and about 16.2 million dollars for onions, at an export price of about 953 dollars / ton, which exceeds the world export price by 71.4%, and about 56.3 thousand tons, 28.3 million Dollars for oranges, at an export price per ton it amounted to about \$ 503 which is less than the world price for export by about 36.8% as shown in table (6).

Table (6) Matrix of exports and imports of Egypt and the G7 countries group for the under study commodities during the average period (2013- 2017). The Quantity per thousand tons and the value per million dollars

Export Import Country	The most important commodities	Exporting and importing countries	Canada		France		Germany		Italy		Japan		United Kingdom		
		World price per dollars	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Egypt Exporting Country	Wheat	325	225	75	228	78	33	12	1	0.01	-	-	-	-	233
	Maize	257	14	4	14	3	-	-	-	-	-	-	-	-	289
	Oils	1989	0.35	3.1	0.99	0.85	0.67	0.52	-	-	-	-	0.04	0.03	0.28
	Red meat	1078	-	-	-	-	-	-	-	-	-	-	-	-	-
	White meat	1971	-	-	322	0.39	0.01	0.02	0.13	0.16	0.12	2.1	-	-	0.49
Egypt Import Country	potato	1694	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sugar	1042	0.057	0.058	1.513	0.72	0.016	0.014	0.121	0.081	-	-	-	-	-
	Onions	556	0.426	0.238	1.368	0.821	2.847	4.029	5.621	3.414	0.28	0.021	17	16.2	0.12
	Orange	796	0.581	0.405	3.297	1.867	0.792	0.453	8.438	4.676	-	-	56.3	28.3	0.16

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) -<http://comtrade.un.org>)

- Integration Opportunities among Egypt and the seven countries group for the under study commodities.

Integration opportunities are defined by the difference between the value of total exports and the value of intra- state exports, that is, the proportion of integration opportunities refers to the complementary proportion of the ratio of intra-exports, and therefore the countries in which the ratio of intra-exports to total is lower, it is the highest in the proportion of integration opportunities and vice versa [4].

Table (7) shows the ranking of countries in terms of integration opportunities as for Maize, America, Japan, and Egypt with integration opportunities reached 99.46%, 99.16%, 99.07% respectively, while for red meat,

Egypt and Japan were 100%, and France increased by 99.21%. As for white meat, Japan, Canada, and Egypt were at rates of about 99.94%, 99.88%, 99.78%, while in oils France, United Kingdom, and Japan were about 95.88%, 95.85%, 95.49%, and for wheat, it was Japan, Egypt, America have rates of about 100%, 99.87%, 97.82%, and for potatoes France, Japan, America by about 98.98%, 98.91%, 97.28%, while sugar is Japan, Canada, and France About 98.85%, 98.20%, 98.01%, while for onions Egypt, France, Italy about 99.98%, 99.33%, 97.37%, and the last in oranges Egypt, America and France about 99.99%, 97.74%, 96.54%, respectively.

In general, a rise this ratio of commodities indicates that the market of this country is a promising and expanding market that absorbs large quantities of these commodities.

Table No. (7) Integration Opportunities among the seven countries and Egypt in the under study commodities

Country	Maize	red meat	white meat	oils	wheat	potato	sugar	onion	Orange
Egypt	99.77	100	99.78	45.38	99.87	89.54	87.57	99.98	99.99
Canada	80.87	93.50	88.88	94.19	22.32	94.64	98.20	92.16	89.76
France	98.25	99.21	97.58	95.18	59.24	98.98	98.01	99.33	96.54
Germany	91.62	97.01	72.03	69.56	20.96	90.48	84.94	94.23	85.99
Italia	94.55	98.48	92.34	82.98	86.11	81.01	23.13	97.37	89.03
United kingdom	98.66	99.18	90.22	95.85	79.03	92.36	87.58	90.16	88.71
USA	98.46	98.86	94.14	81.89	97.82	97.28	88.12	94.46	97.74
Japan	99.96	100	99.94	95.49	100	98.91	98.85	84.10	87.28

Source: - Calculated and compiled from the United Nations Foreign Trade Database (UNcomtrade) - <http://comtrade.un.org>.

- The commercial compatibility degree Indicator among the under study countries

It is expresses the compatibility of the country's exports or imports with the imports or exports of another country, and therefore it is a good indicator of the possibility of transferring trade among countries, and can be calculated through The following equation: -

$$TCI=1-\{(\sum_{i=1}^n |Mbi - xai|)/2\} [3]$$

whereas: -

TCI: degree of commercial compatibility

Mbi: ratio of commodity(I) imports of total state(b) imports

Xai: the ratio of commodity(I) exports of the total country's exports (a)

The value of the Indicator ranges between zero and one, and the higher the value of the indicator and the closer to the correct one, indicates the high degree of compatibility among the country's exports (a) and the imports of the country (b).

- And the results of commercial compatibility tables are a mirror that reflects the compatibility of commercial relations among the under study countries, and we will limit the comment to the compatibility of trade relations among Egypt and the under study countries in studying the commercial compatibility of maize, wheat, onions and oranges.

Where the table No. (8) clear that the highest degree of commercial compatibility among Egyptian imports of Maize and exports of other countries was achieved in (America, Canada, and the United Kingdom) with a value of (0.96, 0.90, 0.90), respectively. And the lowest compatibility achieved with Italy at a value of 0.80, which means that the markets of these countries are suitable markets for Egyptian imports of Maize ,and import of what it need in terms of quantities, prices and import dates or timing more than directing exports to them, and on the other side the table shows the compatibility of the commercial relationship among Egyptian exports and other Countries imports, where the highest degree of compatibility achieved in each of (America, Canada, France) with a value of (0.98, 0.97, 0.95), respectively.

Table No. (8) commercial compatibility among the under study countries in Maize during the average period 2010- 2017

Exports	Imports								
	Country	Egypt	Canada	France	Italia	Germany	United kingdom	USA	Japan
	Egypt	0	0.90	0.94	0.91	0.89	0.90	0.96	0.89
	Canada	0.97	0	0.98	0.96	0.91	0.88	0.95	0.79
	France	0.95	0.96	0	0.94	0.95	0.90	0.90	0.84
	Italia	0.94	0.95	0.96	0	0.97	0.89	0.92	0.86
	Germany	0.91	0.96	0.97	0.93	0	0.88	0.92	0.86
	United kingdom	0.90	0.92	0.89	0.90	0.88	0	0.96	0.80
	USA	0.98	0.99	0.99	0.95	0.98	0.98	0	0.80
	Japan	0.88	0.85	0.80	0.87	0.88	0.80	0.89	0

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) - <http://comtrade.un.org>

- As for the commercial compatibility of the Egyptian imports of wheat and the exports of these countries, it was found from Table (9) that the highest compatibility rate was achieved with the imports of America, Italy, and Canada (0.78, 0.76, 0.72), while for the Egyptian exports and the imports of these countries, the highest compatibility was achieved with America, Germany, Canada, value (0.93, 0.91, 0.91), respectively.

Table No. (9) commercial compatibility among the under study countries in wheat during the average period 2010-2017

Exports	Imports								
	Country	Egypt	Canada	France	Italia	Germany	United kingdom	USA	Japan
	Egypt	0	0.72	0.70	0.76	0.65	0.64	0.78	0.62
	Canada	0.91	0	0.89	0.86	0.88	0.77	0.80	0.89
	France	0.88	0.98	0	0.89	0.89	0.83	0.87	0.82
	Italia	0.80	0.88	0.85	0	0.87	0.78	0.75	0.76
	Germany	0.91	0.85	0.76	0.77	0	0.76	0.84	0.77
	United kingdom	0.88	0.89	0.70	0.76	0.72	0	0.78	0.63
	USA	0.93	0.99	0.89	0.87	0.88	0.85	0	0.87
	Japan	0.70	0.82	0.76	0.72	0.66	0.76	0.67	0

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) - <http://comtrade.un.org>)

Table (10) shows the commercial compatibility of the Egyptian exports of onions with the imports of those countries, where the highest degree of compatibility with the imports of America, Japan, and France has been achieved with a value of (0.99, 0.95, 0.92), and on the other hand, the Egyptian imports of onions correspond to the exports of each of Germany Canada valued at 0.45 and Japan at 0.40.

Table No. (10) commercial compatibility among the under study countries in onions during the average period 2010-2017

Exports	Imports								
	Country	Egypt	Canada	France	Italia	Germany	United kingdom	USA	Japan
	Egypt	0	0.91	0.90	0.79	0.88	0.80	0.99	0.95
	Canada	0.45	0	0.55	0.31	0.32	0.23	0.55	0.22
	France	0.34	0.45	0	0.41	0.41	0.33	0.41	0.34
	Italia	0.33	0.24	0.46	0	0.32	0.39	0.51	0.22
	Germany	0.45	0.35	0.42	0.33	0	0.25	0.38	0.28
	United kingdom	0.23	0.20	0.35	0.41	0.31	0	0.42	0.23
	USA	0.35	0.53	0.42	0.56	0.44	0.45	0	0.21
	Japan	0.40	0.25	0.32	0.24	0.25	0.22	0.25	0

Source: collected and calculated from the United Nations Foreign Trade Database on the website (UNcomtrade) - <http://comtrade.un.org>)

- Table No. (11) shows the commercial compatibility of Egyptian exports of oranges with the imports of the under study countries, as it became clear that the imports of Canada, America and Japan achieved the highest degree of compatibility with the value of (0.99, 0.98, 0.97), respectively. On the other hand, the highest compatibility among Egyptian imports of oranges was achieved with exports of France, Canada and Germany, at a value of (0.55, 0.52, 0.51), respectively.

Table No. (11) commercial compatibility among the under study countries in Orang during the average period 2010-2017.

Exports	Imports								
	Country	Egypt	Canada	France	Italia	Germany	United kingdom	USA	Japan
	Egypt	0	0.99	0.96	0.93	0.91	0.89	0.98	0.97
	Canada	0.52	0	0.56	0.48	0.36	0.55	0.58	0.43
	France	0.55	0.45	0	0.55	0.55	0.33	0.55	0.33
	Italia	0.44	0.42	0.44	0	0.45	0.25	0.45	0.25
	Germany	0.51	0.40	0.46	0.45	0	0.34	0.43	0.33
	United kingdom	0.43	0.33	0.32	0.35	0.30	0	0.33	0.41
	USA	0.45	0.55	0.54	0.43	0.45	0.51	0	0.25
	Japan	0.40	0.23	0.33	0.34	0.31	0.22	0.22	0

Source: collected and calculated from the [6]

-The most important results:

-From the previous results, it is clear that America is the highest country that exports maize among the under study countries, as Egypt is the highest country importing maize, so the cooperation between the two countries regarding the United States' export of corn, white meat and wheat at a low price to Egypt leads to reduce the Egyptian trade balance deficit about (24%, 9%, 25%) respectively.

-Consequently, the trade balance deficit is reduced by 58% for the three crops, In exchange for Egypt's export to America of onions and oranges, due to the fact that Egypt has a price and production advantage, as the price of exporting onions and oranges it is lower than other countries. This increases the value of exports and reduces the trade deficit.

-The second alternative is that wheat can be imported from Canada and France at a low import price and reduce the Egyptian trade balance deficit.

-Or export sugar to Italy as the highest country that imports sugar, thus reducing the trade deficit by 3%.

-Egypt can export onions to Canada in exchange for importing red meat from Canada, which reduces the Egyptian trade balance deficit by 11%.

-Also, Egypt can export oranges to France in exchange for Egypt's import oils from France, reducing the Egyptian trade balance deficit by 25%.

-The Recommendations

Therefore, the most important recommendations of the study in light of these results are The necessity of adopting the Egyptian economic policy makers to activate the intra-trade among Egypt and the G7 countries, because of its positive effects on the Egyptian trade movement in the most important agricultural commodities, whether imported or Exported of Egypt, and previously referred to with the largest group of global countries, as it leads to reducing the Egyptian trade balance deficit in all Cases of trade, if Egypt is an importing or exporting country.

2. References

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