

Development of Foreign Trade in Jordan, 1995-2010

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This study is organized to analyze and find out the volume of imports and exports in the foreign trade of Jordan. It also attempts to measure external trade developments of Jordan and to find the ratios of foreign trade to GDP. This study used annual time series data for the period of 1995 to 2010 and then data for the period 2000-2010. It was found that, the exports share of crude material and intermediate goods represented 50 percent in the total domestic exports in 2010, consumer goods also represented 47 percent. The imports share of crude material and intermediate goods represented 53 percent in the total imports in 2010. In 2010, exports of manufacturing goods according to (SITC) represented the largest commodity group. Jordan imports were composed of 58 percent share of manufacturing goods according to (SITC), represented the largest commodity group. Jordan has traditionally run a trade deficit with imports at least doubling exports. During the year 2010 the export-import coverage rate reached to 57 percent. The increase in the volume of external trade was driven by the rise in the value of domestic exports and imports by 17.82 percent and 8.19 percent in 2010, respectively. Ratio of external trade to G.D.P. reached to 78.55 percent in 2010 with an average rate of 88.7 percent from the year of 2000 to 2010. It is recommended that Jordan must enhance exports to reduce the burden of imports.

Keywords: Foreign trade, Exports, Imports, Trade deficit, Trade balance

1. Introduction

Jordan does not possess a wealth of natural resources like the oil-rich countries in the Gulf and does not have a very wide industrial base. It has been plagued with trade deficits since its creation. The situation has worsened as the food gap in the country widens, and more and more food has to be imported. The country has attempted to address this issue by promoting exports and tightening imports.

Jordan's economy is among the smallest in the Middle East, with insufficient supplies of water, oil, and other natural resources, underlying the government's heavy reliance on foreign assistance. Other economic challenges for the government include chronic high rates of poverty, unemployment, inflation, and a large budget deficit. (CIA World Factbook, 2011). The global economic slowdown, however, has depressed Jordan's GDP growth. Export-oriented sectors such as manufacturing, mining, and the transport of re-exports have been hit the hardest. The Government approved two supplementary budgets in 2010, but sweeping tax cuts planned for 2010 did not materialize because of Jordan's need for additional revenue to cover excess spending. The budget deficit is likely to remain high, at 5-6% of GDP, and Jordan likely will continue to depend heavily on foreign assistance to finance the deficit in 2011. Jordan's financial sector has been relatively isolated from the international financial crisis because of its limited exposure to overseas capital markets. (Jordan Economy Profile, 2012)

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The economy of Jordan is robust and growing. Its GDP per capita soared by 35.1% in the 1970s, and after only a slight decline of 30% in the 1980s, grew once again by 36% in the 1990s. Jordan is classified as an emerging market. (Wikipedia, 2011) It was reported by the World Bank that Jordan is a small country with limited natural resources (the country's three main resources are phosphates, potassium and limestone). Recent economic reforms aimed at liberalizing trade and attracting investments have allowed Jordan to reach good economic results. In 2010, the GDP growth rate was 3.4% and in 2011 should remain at around 3.5%. Poverty, unemployment (about 13%) and a large foreign debt are the main problems of the country. The Jordanian economy remains vulnerable to external shocks and regional unrest. It is also very dependent on foreign aid, which reached more than a billion USD in 2008. The country is troubled by a relatively large trade deficit, mainly due to the increase in food and energy product subsidies and linked to the decrease in international aid.

Jordan was very little affected by the financial crisis of 2008 and the country has experienced a moderate economic slowdown in the last two years, mostly due to the decrease in money transfers from the immigrant workforce in the countries of the Gulf, which represent on average 3 billion USD annually (15% of the GDP). (Global trade 2011).

Jordan is very open to international trade. The share of foreign trade in the country's GDP is around 135%. Its trade balance is currently a deficit, due to its dependence on raw materials. Jordan is a member of the WTO and signed a free-trade agreement (FTA) with the USA in December 2001, removing customs duties on the majority of goods and services until 2010. Jordan has also signed an Agreement of Association with the EU. In June 2010, Jordan signed an accord with Turkey, Syria and Lebanon, in order to create a free-trade zone, with free circulation of goods and workforce between these four near-eastern countries.

The country's top three export partners are India (16%), Iraq (16%) and the United States (13%). The main export commodities are clothes & clothing accessories, fertilizers, pharmaceutical products and edible vegetables. Jordan is also one of the top five exporters of phosphates (together with the USA, China, Russia and Morocco).

The top three import partners are Saudi Arabia (21%), China (10%) and the United States (6%). Jordan mainly imports mineral fuels & oils, vehicles, machinery, and electric & electronic equipment (Country Trading Profile, 2011).

This study is organized to analyze and find out the size of imports and exports in the foreign trade of Jordan. Exports and imports are classified according to economic function and by commodity according to S.I.T.C from (1995-2010). Furthermore, this study aimed at finding out the share of the main goods in both exports and imports of Jordan, as well as finding out the foreign trade deficit of the country from the period of 2000-2010. This study also attempts basically to measure external trade developments of Jordan from 2000-2010. Components of foreign trade are classified according to their financial characteristic and financial indicators which will be prepared based on data collected from the department of statistics of Jordan. The other objectives will attempt to find the ratios of foreign trade (external trade, total exports, domestic exports, re-exports, imports and trade of balance) to GDP. The

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main problem which arises in this study is that for many years Jordan had a deficit, in which imports exceed exports, the export expansion and openness to foreign markets is viewed as a key determinant of economic growth.

The study is organized as follows: Section 1 gives a brief overview on the Jordanian economy. Section 2 introduces the literature review of study which has a direct relation to the proposed study. Section 3 describes the methodology of study. Section 4 shows the share of the main goods of exports and imports of Jordan. Section 5 introduces the ratios of foreign trade to GDP of the country. The last two sections reports the main findings, summary and conclusion.

2. Literature Review

Many studies in literature have been carried out to measure and examine the foreign trade development of different economies, but very few studies dealing with Jordan foreign trade is available. Therefore, this study attempts to fill in the literature gap and introduces literature review of different countries.

The simplest measures of trade orientation are based on actual trade flows, such as imports /GDP, exports/GDP and exports and imports as share of GDP Balassa(1985), Quah and Rauch(1990), Helliwal and Chung (1991), Edwards (1992), Milner and Upadhyay (2000) and Jin (2000)]. Most of these measures show a positive association with GDP growth.

Helpman and Krugman, (1985). Furthermore, exports can provide foreign exchange that allows for more imports of intermediate goods which in turn raises capital formation and thus stimulate output growth. Several studies have also shown that it is possible to have growth-led exports (GLE) which has the reverse causal flow from economic growth to exports growth. In the GLE case, export expansion could be stimulated by productivity gains caused by increases in domestic levels of skilled-labor and technology (Bhagwati, 1988; Krugman, 1984). The third alternative is that of import-led growth (ILG) which suggests that economic growth could be driven primarily by growth in imports. Endogenous growth models show that imports can be a channel for long-run economic growth because it provides domestic firms with access to needed intermediate factors and foreign technology (Coe and Helpman, 1995). Growth in imports can serve as a medium for the transfer of growth-enhancing foreign R&D knowledge from developed to developing countries (Lawrence and Weinstein, 1999; Mazumdar, 2000).

Cetintas and Barisik (2009) analyzed the relationships between export, import and economic growth for the 13 transition economies by using panel unit root, panel cointegration and causality tests based on panel VECM (vector error correction model), their empirical findings show that the growth-led export hypothesis is valid in those countries and growth is rather shaped by increase in import demand, further there is bidirectional causality between economic growth and import and also between export and import. Parida and Sahoo (2007) examined export led and manufacturing export-led growth hypothesis for four South Asian Countries (India, Pakistan, Bangladesh and Sri Lanka) by employing a panel data approach, they found evidence for supporting export-led growth and manufacturing export-led growth hypothesis. Tang and Lai (2011) examined the validity of export-led growth

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hypothesis for Asia's four little dragons with employing bivariate (exports and GDP) and trivariate (exports, GDP and exchange rate) models, the results of this paper show that ELG is valid only for the case of Hong Kong and Singapore in the bivariate model but valid for all four economies in the trivariate model. Fosu (1990) investigated export composition and the impact of exports on economic growth of developing countries for 1960-1980 periods, this paper found that while the primary export sector exhibits little or no effect on GDP growth in LDCs, there is a differential positive impact by the manufacturing export sector.

Kim et al., (2007). From the theoretical point of view the relationship between imports and productivity is not an easy one. Increased imports of consumer products induce domestic import substituting firms to innovate, update and restructure themselves in order to compete with foreign rivals. Hence domestic productive efficiency is increased by imports. Under perfect competition in the neoclassical model, when trade barriers are removed and the market is opened up to imports, factor used in an industry is reduced in the short run, but in the long run, the industry becomes more competitive and efficient, and expands its investments in new technology, resulting in more outputs. Import of capital and intermediate goods enables domestic firms to diversify and specialize which further enhances domestic productivity. Under imperfect competition, an import-substituting domestic market shrinks with the increase of imports, causing investment and productivity to fall. Therefore, the effects of imports on productivity depend on both market structure and institutional factors.

Iscan (1998) argues that trade contributes to economic growth by increasing the variety of intermediate inputs and by increasing the size of the market. Exports earn valuable foreign exchange which is essential for importing the much needed capital and intermediate inputs (Damooei and Tavakoli, 2006 quoted from Asufa-Adjaya and Chakraborty, 1999). Therefore, the importance of imports, particularly when imports constitute capital and intermediate inputs, needs to draw more attention as a source of economic growth compared to exports.

Quoting from Iscan (1998), Damooei and Tavakoli (2006) report a positive correlation between the imported inputs and productivity growth. This was evidenced in a study of 47 sectors in the manufacturing industry in Mexico over the period from 1973 through 1990. Blomstrom and Wolf (1994) also find the similar results. They mention that productivity of domestic firms in Mexico increased more rapidly. However, a study conducted by Blomstrom, Lipsey and Zegen (1994) on 78 less developed countries for the period of 1960-1985 gives the opposite results. They find no evidence of the positive relationship between imports of machinery and transport equipment and economic growth.

Lawrence and Weinstein (1999) conducted a panel data study on Japanese manufacturing industries. They find that imports contributed to total factor productivity (TFP) growth mainly through completion effects. Lawrence (1999) also notes that import competition demonstrated TFP growth in US industries. Another study on the Brazilian manufacturing sector by Muendler (2004) reveals that the competitive effects of imports on competition are large though the effect of intermediate imports on labor productivity is small (Kim et al. 2007).

Afzal (2006) found a strong and stable relationship between GDP and exports and bi-directional causality between manufactured exports and GDP. Bahmani and

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Domac (1995) estimated long-run relationship between Turkish exports and domestic production. Mah (2005) found bidirectional causality in China. Hatemi (2002) investigated the bi-directional causal relationship in Japan and Demirhan and Akcay (2005) found that exports cause economic growth in Morocco and Jordan. Abdulai and Jaquet (2002) found the causal relationship flows from exports to GDP. Ahmad (2001) has estimated the causality exist in support of export-led growth hypothesis.

Based on the above literature all authors emphasized on that; exports expansion increase domestic productivity, level of labor skills, technology, obtain valuable foreign exchange, and economic growth. Meanwhile, imports induce the local firms to innovate and update their products in order to compete with foreign competitors.

3. Methodology

The methodology describes the time series data and exploring the share of exports and imports in Jordan's economy. Unit ratios, shares and growth rates analysis are emphasized. The researcher could not find a detailed study in the literature on Jordan's foreign trade. Therefore, this study attempts to fill in the literature gap.

Data: This study used annual time series data for the period of 1995 to 2010 and then data for the period 2000-2010. The data sets were mainly obtained from the statistics database of Department of Statistics of Jordan DSJ, Central Bank of Jordan CBJ, World Fact book CIA, that provides searchable time series data on international trade in both merchandise and commercial services, other data were obtained from international articles related to the same study as well as from the websites. Specifically, total merchandise imports and exports data (measured in Jordanian Dinar value which equal to \$ 1.43) of Jordan were used for the study.

Data Analysis Techniques and numerous tests have been developed and applied to time series data in order test the volume of external trade of Jordan. The export and import series for further examination are presented: External trade Indicators, export and import coverage ratios, ratios of total domestic exports to total Imports of Jordan, and ratios of external trade to GDP of Jordan were also calculated and presented.

However the present study seeks to test the following assumptions:

- H1: Exports of Jordan are dominated by some commodities.
- H2: Imports of Jordan are dominated by some commodities.
- H3: Exports volume of Jordan are increasing over the period of study.
- H4: Jordan economy suffers a trade deficit over the period of study.
- H5: external trade to G.D.P increasing over the period of study.

4. Development of Foreign Trade in Jordan (1995-2010)

In 2010 the Jordanian economy showed strong signs of economic recovery after surpassing the adverse impacts of the global financial and economic crisis. The pace of real economic growth resumed its upward trend to amount to 3.1 percent, while the unemployment rate decreased by 0.5 percentage point to standing at 12.5 percent of the labor force. Furthermore, the budget deficit decreased by more than

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3.0 percentage points to stand at 5.4 percent of GDP. The volume of external trade rebounded; increased by 10.7 percent after 17.0 percent plunging in the preceding year. These signs were combined with the increase in the inflation rate of 5.0 percent, due to the commodities in international markets

The following table shows the domestic exports of Jordan by economic function from 1995-2010. After analyzing the table it was noted that, the share of consumer goods increased by 47 percent of the total domestic exports in 2010 against 41 percent in 1995, this share reached to 42 percent in 2000 and 62 percent in 2005. The domestic exports of crude material and intermediate goods share decreased to 50 percent in 2010 as against 55 percent in 1995, this share reached to 53 percent in 2000 and 36 percent in 2005. The share of capital goods was 4 percent of the total domestic exports of Jordan in the year 1995, and then declined to 3 percent in the year 2010, , this share reached to 5 percent in 2000 and 3 percent in 2005.

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Table 1: Domestic Exports of Jordan by Economic Function(1995-2010) in Thousand J.D

Years	Exports	Consumer Goods	Share	Crude Material and Intermediate Goods	Share	Capital Goods	Share	Miscellaneous	Share
1995	1004534	412095	0.41	550897	0.55	41542	0.04	0.0	0.00
1996	1039801	407595	0.39	608507	0.59	23477	0.02	222	0.00
1997	1067164	507028	0.48	529353	0.50	30733	0.03	50	0.00
1998	1046382	457522	0.44	558106	0.53	30752	0.03	2	0.00
1999	1051353	417622	0.40	591851	0.56	41793	0.04	87	0.00
2000	1080817	450448	0.42	577995	0.53	52240	0.05	134	0.00
2001	1352371	625667	0.46	642039	0.47	84664	0.06	1	0.00
2002	1556748	830651	0.53	654630	0.42	71433	0.05	34	0.00
2003	1675075	985805	0.59	643451	0.38	45819	0.03	0	0.00
2004	2306626	1406554	0.61	842396	0.37	57676	0.03	0	0.00
2005	2570222	1584133	0.62	920255	0.36	65798	0.03	36	0.00
2006	2929310	1797663	0.61	1042804	0.36	88393	0.03	450	0.00
2007	3183707	1846259	0.58	1264556	0.40	72673	0.02	220	0.00
2008	4431113	1889471	0.43	2401576	0.54	137892	0.03	2174	0.00
2009	3579166	1737676	0.49	1714593	0.50	126834	0.04	63	0.00
2010	4216949	1975288	0.47	2116916	0.50	124431	0.03	314	0.00

Source: Department of Statistics of Jordan (DSJ) 1995-2010. Prepared using data from DSJ

Table 2. shows the distribution of imports of Jordan by economic function from 1995-2010. After analyzing the table it was noted that, the share of consumer goods increased by 29 percent of the total imports in 2010 against 23 percent in 1995, this share reached to 30 percent in 2000 and 24 percent in 2005. The imports of crude material and intermediate goods share decreased by 53 percent in 2010 as against 55 percent in 1995, this share reached to 50 percent in 2000 and 55 percent in 2005. The share of capital goods was 21percent of the total imports of Jordan in the year 1995, and then declined to 16 percent in the year 2010, this share reached to 18 percent in 2000 and 19 percent in 2005.

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Table 2: Imports of Jordan by Economic Function (1995-2010) in Thousand JD

Years	Imports	Consumer Goods	Share	Crude Material and Intermediate Goods	Share	Capital Goods	Share	Miscellaneous	Share
1995	2590250	600445	0.23	1428484	0.55	547456	0.21	1828	0.01
1996	3043556	727136	0.24	1650888	0.54	664948	0.22	1615	0.00
1997	2908085	706075	0.24	1552058	0.53	649271	0.22	1907	0.01
1998	2714374	762407	0.28	1360803	0.50	589921	0.22	2364	0.00
1999	2635207	782911	0.30	1307320	0.50	533617	0.20	2293	0.00
2000	3259404	984898	0.30	1625671	0.50	575636	0.18	1932	0.02
2001	3453729	915819	0.27	1822524	0.53	668299	0.19	1977	0.01
2002	3599160	964075	0.27	1902720	0.53	664544	0.18	2540	0.02
2003	4072008	1048321	0.26	2235070	0.55	704476	0.17	2282	0.02
2004	5799241	1402140	0.24	3279843	0.57	1015290	0.18	2695	0.01
2005	7442864	1810659	0.24	4075807	0.55	1418207	0.19	3187	0.02
2006	8187725	2100846	0.26	4495923	0.55	1445153	0.18	3023	0.01
2007	9722194	2354949	0.24	5339944	0.55	1896388	0.20	3352	0.01
2008	12060895	2958120	0.25	6828873	0.57	2124736	0.18	2958	0.00
2009	10107696	3075338	0.30	5035661	0.50	1811283	0.18	3385	0.02
2010	10935483	3179433	0.29	5789955	0.53	1793671	0.16	2546	0.02

Source: Department of Statistics of Jordan (DSJ) 1995-2010. Prepared using data from DSJ

The following table shows the distribution of domestic exports of Jordan by main sectors from 1995-2010 according to International Standards S.I.T.C. After analyzing the table it was noted that, the share of manufacturing goods increased by 62 percent of the total domestic exports in 2010 as against 49 percent in 1995, this share reached to 61 percent in 2000 and 71 percent in 2005. The domestic exports share of animal and vegetable oil decreased by 0.1 percent in 2010 as against 15 percent in 1995, this share reached to 4 percent in 2000 and 3 percent in 2005. Meanwhile, the share of mineral fuels and crude materials decreased by 26 percent in 2010 as against 20 percent in 1995, this share reached to 23 percent in 2000 and 14 percent in 2005. The share of beverages and food increased by 16 percent of the total domestic exports in 2010 against a decline by 10 percent in the year 1995, this share reached to 12 percent in 2000 and 13 percent in 2005.

Consequently, the commodities of clothes, potash, medical and pharmaceutical products, vegetables, fertilizer and phosphates topped the list of exported commodities in 2010; accounting for 56.9 percent of the total domestic exports compared with 56.7 percent in 2009. However, the markets of the USA, Iraq, India, Saudi Arabia, UAE, Syria, and Lebanon were the major destinations for domestic exports during 2010; accounting for 66.2 percent of the total domestic exports compared with 69.9 percent in 2009.

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Table 3: Domestic Exports of Jordan by Commodity According to S.I.T.C (1995-2010) in Thousand JD

Years	Exports	Manufac-turing Goods	Share	Animal and Vegeta ble Oil	Share	Mineral Fuels and Crude Materials	Share	Bevera- ges and Food	Share	Miscell- aneous	Share
1995	1004534	492941	0.49	147009	0.15	259843	0.26	104741	0.10	0	0.00
1996	1039801	525536	0.51	64381	0.06	285447	0.27	164215	0.16	222	0.00
1997	1067164	536840	0.50	86733	0.08	258570	0.24	184971	0.17	50	0.00
1998	1046382	547069	0.52	59660	0.06	268665	0.26	170988	0.16	0	0.00
1999	1051353	606772	0.58	49105	0.05	264975	0.25	130412	0.12	89	0.00
2000	1080817	661530	0.61	44731	0.04	249405	0.23	125018	0.12	133	0.00
2001	1352371	901018	0.67	42735	0.03	250314	0.19	158303	0.12	1	0.00
2002	1556748	1064862	0.68	67819	0.04	252423	0.16	171609	0.11	35	0.00
2003	1675075	1166479	0.70	41775	0.02	263220	0.16	201412	0.12	2189	0.00
2004	2306626	1604766	0.70	112957	0.05	325891	0.14	242335	0.11	20677	0.00
2005	2570222	1820237	0.71	72247	0.03	354867	0.14	322835	0.13	36	0.00
2006	2929310	2089142	0.71	61541	0.02	383618	0.13	388649	0.13	6360	0.00
2007	3183707	2230275	0.70	16070	0.005	461594	0.14	472551	0.15	3217	0.001
2008	4431113	2798628	0.63	18096	0.004	1022201	0.23	583303	0.13	8885	0.002
2009	3579166	2260226	0.63	6124	0.001	655445	0.18	574327	0.16	83044	0.02
2010	4216949	2601264	0.62	7844	0.001	836697	0.20	684020	0.16	87124	0.02

Source: Department of Statistics of Jordan (DSJ) 1995-2010. Prepared using data from DSJ according to S.I.T.C.

The following table shows the distribution of imports of Jordan by main sectors from 1995-2010 according to International Standards S.I.T.C. After analyzing the table it was noted that, the share of manufacturing goods declined by 58 percent of the total imports in 2010 against a 62 percent in 1995, this share reached to 60 percent in 2000 and 59 percent in 2005. The imports share of animal and vegetable oil decreased by 1 percent in 2010 as against 4 percent in 1995, this share reached to 1 percent in 2000 and 1 percent in 2005. Meanwhile, the share of mineral fuels and crude materials increased by 24 percent in 2010 as against 17 percent in 1995, this share reached to 19 percent in 2000 and 25 percent in 2005. The share of beverages and food decreased by 15 percent of the total imports in 2010 against 17 percent in the year 1995, this share reached to 17 percent in 2000 and 12 percent in 2005.

Accordingly, the imports of crude oil, transport equipment and spare parts, petroleum products, iron and steel, textile yarn, fabrics, and related products, medical and pharmaceutical products, plastic and articles thereof topped the list of imported commodities; accounting for 41.0 percent of the total imports compared with 39.0 percent in 2009. Furthermore, the markets of Saudi Arabia,

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China, Germany, the USA, Egypt and South Korea were the main sources of the kingdom's imports; accounting for 51.0 percent of total imports compared with 51.7 percent in 2009.

Table 4: Imports of Jordan by Commodity According to S.I.T.C (1995-2010) in Thousand JD

Years	Imports	Manufacturing Goods	Share	Animal and Vegetable oils	Share	Mineral Fuels and Crude Materials	Share	Beverages and Food	Share	Miscellaneous	Share
1995	2590250	1603549	0.62	94697	0.04	427484	0.17	429162	0.17	35358	0.01
1996	3043556	1787536	0.59	73647	0.02	465185	0.15	697953	0.23	19235	0.01
1997	2908085	1744044	0.60	96816	0.03	467818	0.16	556013	0.19	43394	0.01
1998	2714374	1733801	0.64	57629	0.02	340446	0.13	555239	0.20	27259	0.01
1999	2635207	1630975	0.62	44635	0.02	403430	0.15	511112	0.19	45055	0.02
2000	3259404	1955245	0.60	39898	0.01	612601	0.19	562911	0.17	88749	0.03
2001	3453729	2189642	0.63	39098	0.01	601477	0.17	557304	0.16	66208	0.03
2002	3599160	2230005	0.62	58520	0.02	646601	0.18	573772	0.16	90262	0.02
2003	4072008	2415838	0.59	72360	0.02	760191	0.19	689476	0.17	134143	0.03
2004	5799241	3423791	0.59	147055	0.03	1224050	0.21	827167	0.14	177178	0.03
2005	7442864	4417242	0.59	108686	0.01	1835718	0.25	894999	0.12	186219	0.03
2006	8187725	4838996	0.59	91171	0.01	2069028	0.25	1017373	0.12	171157	0.03
2007	9722194	5816297	0.60	81592	0.01	2213644	0.23	1414225	0.15	196436	0.03
2008	12060895	6970010	0.58	176959	0.01	2828503	0.23	1829552	0.15	255871	0.03
2009	10107696	6222311	0.62	117768	0.01	1976391	0.20	1591451	0.16	199775	0.02
2010	10935483	6357798	0.58	90544	0.01	2638016	0.24	1667650	0.15	181475	0.02

Source: Department of Statistics of Jordan (DSJ) 1995-2010. Prepared using data from DSJ according to S.I.T.C.

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5. Development of Foreign Trade in Jordan (2000-2010)

The deficit in the foreign trade, which is calculated by deducting the value of imports from the value of total exports, has reached \$2 billion in the year 2000; therefore, the deficit has increased to reach 5.64 billion in the period of 2010. As a consequence, the imports coverage by total exports has become 57 percent in the year 2010, while it was 50 percent for the period of 2000, which means an increase by 0.7 percentage points.

Table 5: Development of Foreign Trade in Jordan 2000-2010 (Billion \$)

Years	Exports	Imports	Foreign Trade Deficit	Export-Import Coverage Rate
2000	2	4	2	0.50
2001	1.58	5.25	3.67	0.30
2002	2.5	4.4	1.9	0.57
2003	2.5	4.4	1.9	0.57
2004	2.91	4.95	2.04	0.59
2005	3.2	7.6	4.4	0.42
2006	4.23	8.68	4.45	0.49
2007	4.8	10.42	5.62	0.46
2008	7.78	15.03	7.25	0.52
2009	6.37	12.5	6.13	0.51
2010	7.33	12.97	5.64	0.57

Source: Prepared using data of CIA World Fact book, January 1, 2011

The volume of external trade (domestic exports plus imports) increased by JD 1465570 thousands, or 10.71 percent in year 2010 totaling JD15152432 thousands, against a decline by JD 2805146 thousands 17.01 percent in 2009, this rise was a result of the increase in domestic exports and imports, there was also, a rise amounting to JD 3586107 thousands, or 27.79 percent, in 2008. In addition to that, the external trade of Jordan increased by JD 10812208 thousands from the year 2000 to 2010, or 249 percent, the increase in the volume of external trade was driven by the rise in the value of exports and imports together. The volume of total exports increased by JD 462250 thousands, or 10.21 percent in year 2010 totaling JD 4988575 thousands, against a decline by JD 1106680 thousands, or 19.65 percent in 2009, this increase was an outcome of the rise of domestic exports at one hand, and the drop in re-exports on the other, as well there was a rise amounting JD 1569364 thousands, or 38.62 percent, in 2008.

Furthermore, the total exports of Jordan increased by JD 3641985 thousands from the year 2000 to 2010 or 270 percent. The volume of domestic exports increased by JD 637783 thousands, or 17.82 percent in year 2010 totaling JD 4216949 thousands, against a decline by JD 851947 thousands, or 19.23 percent in 2009, and a rise amounting JD 1247406 thousands, or 39.18 percent, in 2008. Also, domestic exports have increased by JD 3136129 thousands from the year 2000 to 2010, or 290 percent. The volume of total re-exports decreased by JD 175533 thousands, or -18.53 percent in year 2010 totaling JD 771626 thousands, against a decline by JD 254733 thousands, or 21.19 percent in 2009. Such decline was attributed to the drop in re-exports to Iraq market. Also its worth noting that the markets of Iraq, Switzerland, UAE and Lebanon accounted for 34.2 percent of total re-exports in 2010. Moreover, there was a rise amounting JD 321958 thousands, or 36.59 percent of the re-exports of Jordan in 2008. Re-exports increased by JD 505856 thousands from the year 2000 to 2010, or 190 percent.

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The volume of total imports increased by JD 827787 thousands, or 8.19 percent in year 2010 totaling JD 10935483 thousands, against a decline by JD 1953199 thousands, or 16.19 percent in 2009, this increase was mainly driven by the rise in the imports of crude oil and petroleum products due to the increase in its prices in the international markets. Furthermore, there was a rise amounting JD 2338701 thousands, or 24.06 percent, in 2008. Imports of Jordan has increased by JD 7676079 thousands or 236 percent from the year 2000 to 2010. The trade balance deficit showed an increase of 6.5 percent in 2010.

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Table 6: External Trade Developments of Jordan 2000-2010, JD (000)

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
External Trade	4340224	4806100	5155908	5747083	8105867	10013086	11117035	12905901	16492008	13686862	15152432
Total Exports	1346590	1626733	1963942	2184872	2753023	3049561	3689881	4063641	5633005	4526325	4988575
Domestic Exports	1080820	1352371	1556748	1675075	2306626	2570222	2929310	3183707	4431113	3579166	4216949
Re-exports	265770	274362	407194	509797	446397	479339	760571	879934	1201892	947159	771626
Imports	3259404	3453729	3599160	4072008	5799241	7442864	8187725	9722194	12060895	10107696	10935483
Trade Balance	-1912814	-1826996	-1635218	-1887136	-3046218	-4393303	-4497844	-5658553	-6427890	-5581371	-5946908

Source: Department of Statistics of Jordan (DSJ) 2000-2006, and Central Bank of Jordan Annual Report 2010.

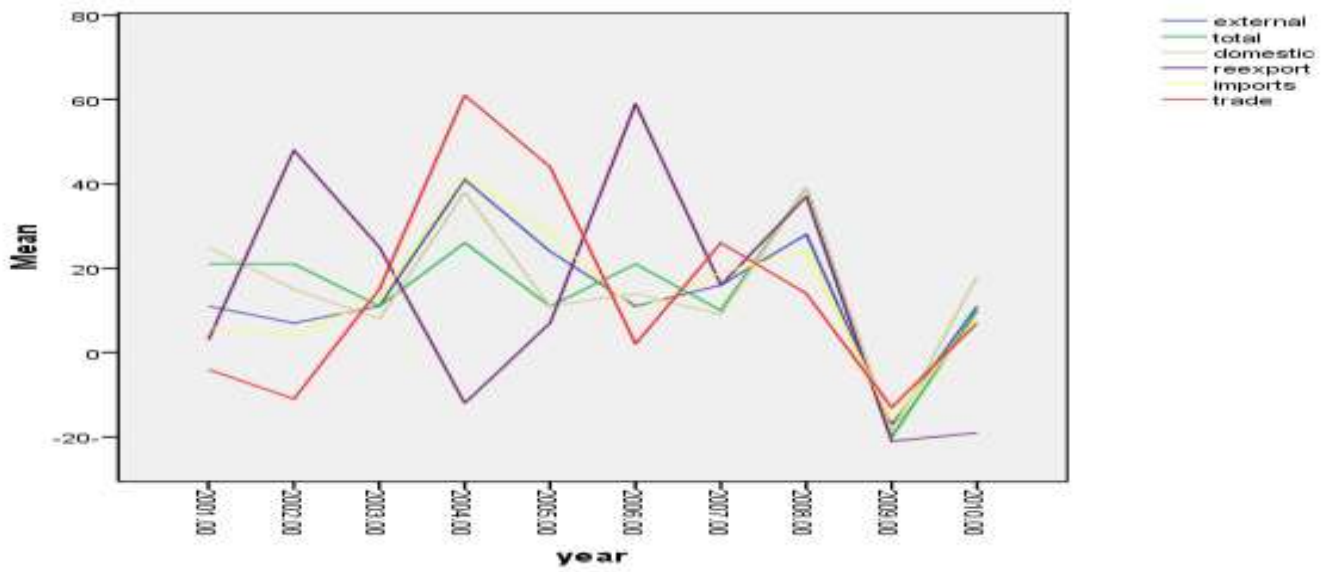
Table 7: External Trade Indicators of Jordan 2000-2010, Annual Changes (%)

Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
External Trade	10.7	7.28	11.47	41.04	23.53	11.03	16.09	27.79	-17.01	10.71
Total Exports	20.80	20.73	11.25	26.00	10.77	20.99	10.13	38.62	-19.65	10.21
Domestic Exports	25.12	15.11	7.60	37.70	11.43	13.97	8.68	39.18	-19.23	17.82
Re-exports	3.23	48.41	25.20	-12.44	7.38	58.67	15.69	36.59	-21.19	-18.53
Imports	5.96	4.21	13.14	42.42	28.34	10.01	18.74	24.06	-16.19	8.19
Trade Balance	-4.49	-10.50	15.41	61.42	44.22	2.38	25.81	13.60	-13.17	6.55

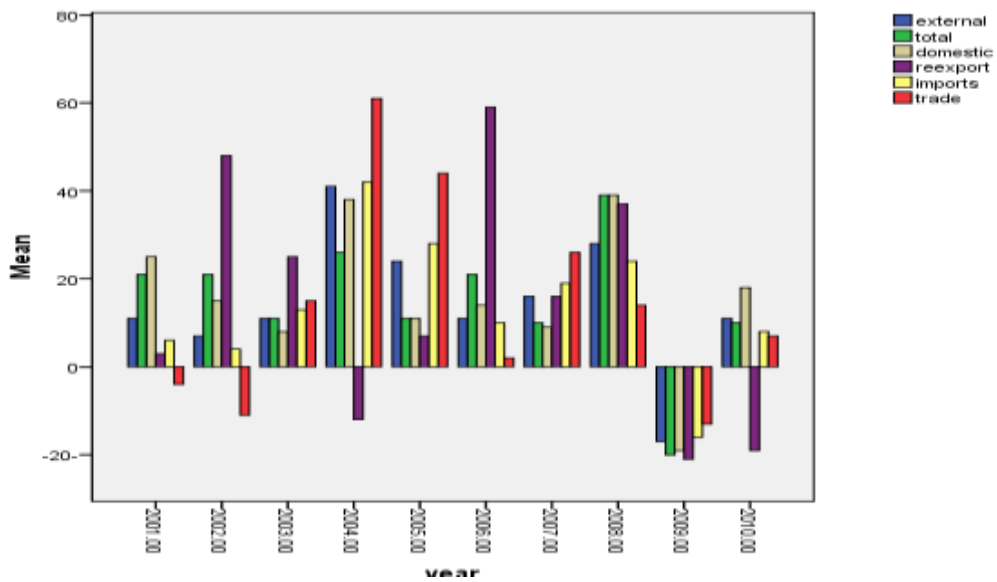
Source: Prepared Using Data from Department of Statistics of Jordan (DSJ) 2000-2006, and Central Bank of Jordan Annual Report 2010

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Graph 1



Graph 2



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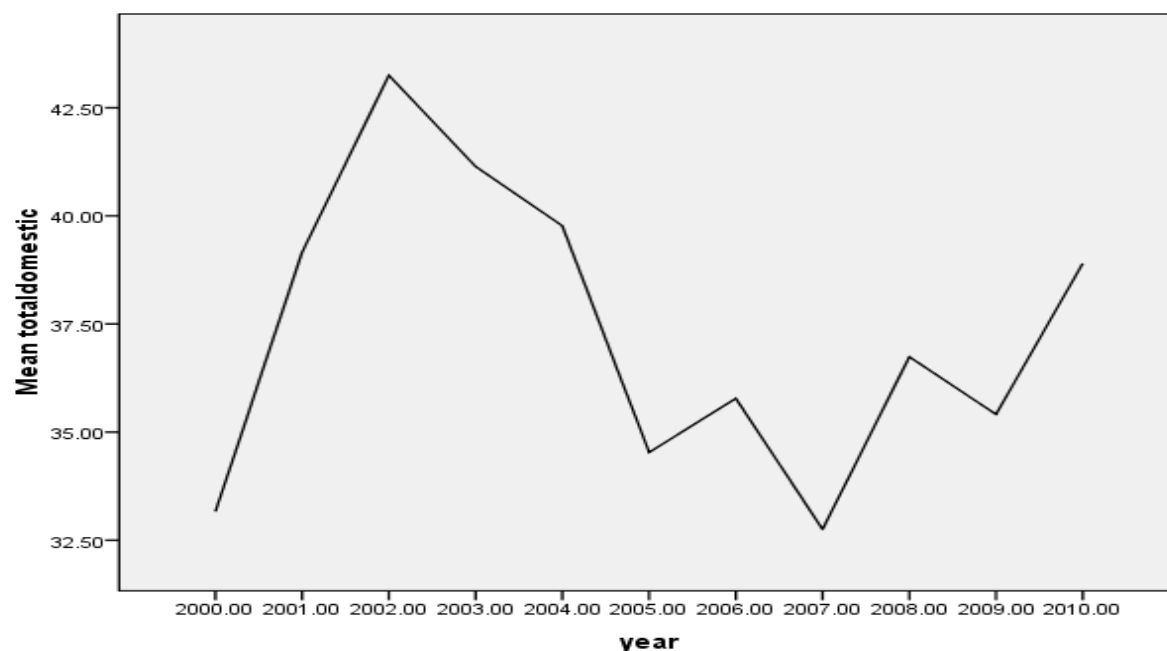
It can be observed from table 8 and graph 3, the ratio of total domestic exports to total imports is fluctuated, it was 33.16 percent in 2000 and then increased to reach 38.90 in 2010, which means that imports are almost double than the exports. Therefore, it is the time for the country to enhance exports to reduce the burden of imports.

Table 8: Ratios of Total Domestic Exports to Total Imports of Jordan 2000-2010

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Ratio of total domestic exports to imports	33.16	39.16	43.25	41.14	39.77	34.53	35.78	32.75	36.74	35.41	38.90

Source: Prepared Using Data from Department of Statistics of Jordan (DSJ) 2000-2006, and Central Bank of Jordan Annual Report 2010.

Graph 3



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The external sector to GDP performance displayed divergent trends over the years. The volume of gross domestic product (GDP) increased by JD 132928.4 thousands from 2000-2010, or 31.09 percent. External trade to GDP ratio increased to stand at 78.55 percent in 2010 compared with 72.36 percent in the year 2000. As well as, ratio of total exports to GDP fluctuated over the years and then increased from 22.45 percent in the year 2000 to 25.85 percent in 2010. Ratio of domestic exports to GDP were up by 21.86 percent of GDP in 2010 against a decrease of 18.02 percent in 2000. Ratio of re-exports to GDP showed adverse trend in 2010 compared to previous years. Ratio of imports to GDP went up and down over the years and increased by 56.69 percent, against a decline by 54.34 percent in 2000. The trade balance deficit ratio decreased by – 30.28 in 2010, against – 31.90 in 2000.

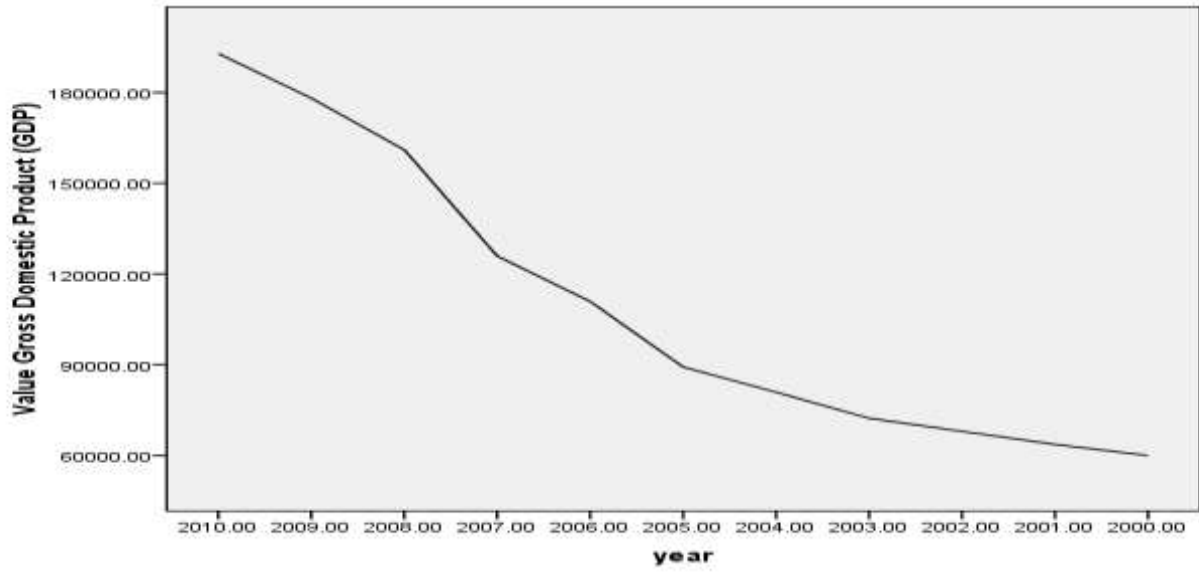
Table 9: Ratios of External Trade to GDP of Jordan 2000-2010 (000 JD)

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Gross Domestic Product (GDP)	59979	63641	67951	72295	80906	89244	110917	125938	161073	178157	192907
Ratio of external trade to GDP	72.36	75.52	75.88	79.49	100.2	112.2	100.23	102.5	102.4	76.82	78.55
Ratio of total exports to GDP	22.45	25.56	28.90	30.22	34.03	34.17	33.27	32.27	34.97	25.41	25.85
Ratio of domestic exports to GDP	18.02	21.25	22.91	23.17	28.51	28.80	26.41	25.28	27.51	20.09	21.86
Ratio of re-exports to GDP	4.43	4.31	6.00	7.05	5.52	5.37	6.86	7.00	7.46	5.32	4.00
Ratio of imports to GDP	54.34	54.27	53.00	56.32	71.68	83.40	73.82	77.20	74.9	56.7	56.69
Ratio of trade balance to GDP	- 31.9	- 28.7	- 24.1	- 26.1	- 37.7	- 49.2	- 40.55	- 44.93	- 39.91	- 31.33	- 30.82

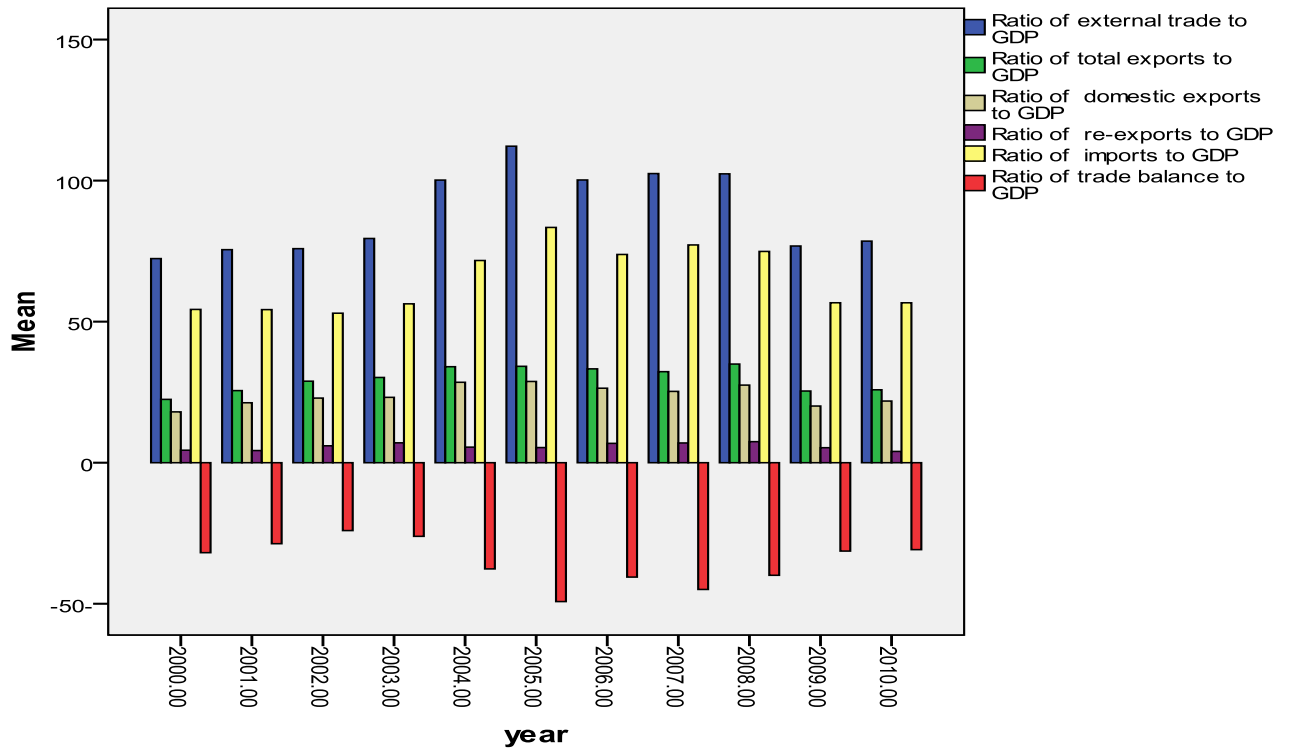
Source: Prepared Using Data from Department of Statistics of Jordan (DSJ) 2000-2006, and Central Bank of Jordan Annual Report 20

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Graph 4



Graph 5



6. The Findings

According to the economic functions of the commodity structure of exports, the exports share of crude material and intermediate goods represented 50 percent in the total domestic exports in 2010, followed by consumer goods which represented 47 percent in the same year of the total domestic exports. This indicates that, these two sectors topped the list of exported commodities of Jordan. In addition, according to the economic functions of the commodity structure of imports, the imports share of crude material and intermediate goods represented 53 percent in the total imports in 2010, followed by consumer goods which represented 29 percent and capital goods with 16 percent share in the same year of the total imports. This indicates that, these two sectors topped the list of imported commodities of Jordan.

In 2010, exports of manufacturing goods and related products according to international standard (SITC), represented the largest commodity group, increased by 62 percent (see table 3). Other major commodity groups for exports included mineral fuels and crude materials, and beverages and food: they represented 20 percent and 16 percent share of exports respectively. Jordan imports were composed of 58 percent share of manufacturing goods and related products according to international standard (SITC), represented the largest commodity group(see table 4). Other major commodity groups for imports included mineral fuels and crude materials, and beverages and food: they represented 24 percent and 15 percent share of imports respectively.

Jordan has traditionally run a trade deficit with imports at least doubling exports. During the year 2010 the export-import coverage rate reached to 57 percent (see table 5). The increase in the volume of external trade was driven by the rise in the value of domestic exports and imports by 17.82 percent and 8.19 percent in 2010, respectively (see table 6).

The coverage ratio of total merchandise exports (domestic exports plus re-exports) to imports increased by 0.8 percentage point in 2010; to stand at 45.6 percent. The total exports increased by 10.21 percent in year 2010, this increase was an outcome of the rise of domestic exports at one hand, and the drop in re-exports on the other. Re-exports decreased by 18.4 percent in 2010 as compared to previous year (see table 7). Merchandise imports increased by 8.2 percent in 2010 as compared to previous year (refer to table 7). This increase was mainly driven by the rise in the imports of crude oil and petroleum products due to the increase in its prices in the international markets.

The trade balance deficit reached to 6.5 percent. This increase was an outcome of the rise in total exports on one hand, and the increase in imports on the other. The coverage ratio of total domestic exports to imports reached to 38.90 percent (see table 8) with an average rate of 37.33 percent from the year 2000 to 2010.

Ratio of external trade to G.D.P. reached to 78.55 percent in 2010 (see table 8) with an average rate of 88.7 percent from the year of 2000 to 2010. Ratio of total exports to G.D.P. reached to 25.85 percent in 2010 with an average of 29.6 percent. Ratio of domestic exports to G.D.P. reached to 21.86 percent in 2010 with an average of 24 percent. Ratio of re-exports to GDP reached to 4 percent in 2010 with an average of 5.6 percent. Ratio of imports to G.D.P. reached to 56.69 percent in 2010 with an average of 64.7 percent. Ratio of trade balance to G.D.P. reached to 30.82 percent in 2010 with an average of 35.1 percent.

7. Summary and Conclusion

The exports of crude material and intermediate goods in addition to consumer goods topped the list of exported commodities of Jordan in 2010. The imports of crude material and intermediate goods followed by consumer goods topped the list of imported commodities of Jordan in the same year.

Furthermore, Jordan has traditionally run a trade deficit with imports at least double the exports. Jordan has limited resources, therefore, it has to rely mostly on imported goods. The rise in the value of imports was an outcome of the notable increase in the price index of imports. This increase was mainly driven by the rise in the imports of crude oil and petroleum products due to the increase in its prices in the international markets. In year 2010, the total exports increased as an outcome of the rise of domestic exports at one hand, and the drop in re-exports on the other. The gap between imports and exports has been shrinking. It has had a much smaller negative effect on G.D.P. thereby allowing the economy to grow. It is recommended that Jordan as a developing country must utilize resources to serve exports to reduce the burden of imports.

References

- Abdulai, Awudu, Jaquet & Philippe 2002, 'Exports and Economic Growth: Cointegration and Causality Evidence for Cote d'Ivoire', *African Development Review*, June, 2002. DOI: 10.1111/1467-8268.00043 URL: <http://www.econis.eu/PPNSET?PPN=35085887X>
- Afzal, M 2006, 'Causality between Exports, World Income and Economic Growth in Pakistan', *International Economic Journal*, March, 20(1), pp. 63-77. www4.uwm.edu/lets/research/.../vol20_no1_paper4.htm -
- Ahmad, Jaleel 2001, 'Causality between Exports and Economic Growth: What Do the Econometric Studies Tell Us?', *Pacific Economic Review*, February; 6(1), pp.147-67. onlinelibrary.wiley.com/doi/10.1111/1468-0106.00123/pdf
- Asafu-Adjaya, & Chakraborty, D 1999, 'Exports-Led Growth and Imports Comparisons: Further Time Series Evidence from LDCs', *Australian Economic Papers*, 38 (2), pp: 164-175. Direct Link
- Bahmani, OM & Domac, L 1995, 'Export Growth and Economic Growth in Turkey: Evidence from Cointegration Analysis', *Middle East Technical University Studies in Development*, 22(1), pp. 67-77. <http://www.econis.eu/PPNSET?PPN=26067754X>
- Balassa, B 1985, 'Exports, Policy Choices and Economic Growth in Developing Countries after the 1973 Oil Shock', *Journal of Development Economics*, 18(2), May/June, pp.23-35. [http://dx.doi.org/10.1016/0304-3878\(85\)90004-5](http://dx.doi.org/10.1016/0304-3878(85)90004-5), www.sciencedirect.com/science/article/pii/0304387885900045
- Bhagwati, JN, 1988, 'Protectionism, MIT Press, Cambridge, Massachusetts. <http://www.sciencedirect.com/science/article/B6V6D-45BC66S-2B/2/850fa8b64c16375a1e2b180bb9a89dd9>
- Blomstrom, M & Wolf, E 1994, 'Multinational Corporations and Productivity Convergence in Mexico, in: W. Bahmol, R, Nelson, & Wolff, E (Eds.), 'Convergence of Productivity: Cross National Studies and Historical Evidence', New York, Oxford University Press, p. 243-259. www.nber.org/papers/w3141

Almazari

- Blomstrom, M, Lipsey, RE & Zegan, M., 1994, 'What Explains the Growth of Developing Countries, in Baumal, WE, Nelson, RR & Wolff, EN (Eds.), 'Convergence of Productivity: Cross-National Studies and Historical Evidence', Oxford: *Oxford University Press*. www.nber.org/papers/w4132
- Central Bank of Jordan, (CBJ) 2010. 'Annual Reports 1964-2010'. www.cbj.gov.jo
- Cetintas, H, & Barisik, S 2009, 'Export, Import and Economic Growth: The Case of Transition Economies', *Transit Stud Rev* 15, pp. 636-649. www.springerlink.com/index/4j67265112671r50.pdf
- Coe, TD, & Helpman, E 1995, 'International R&D spillovers', *European Economic Review*, 39, pp. 859-887. [http://dx.doi.org/10.1016/0014-2921\(94\)00100-E](http://dx.doi.org/10.1016/0014-2921(94)00100-E), www.sciencedirect.com/science/article/pii/001429219400100E
- Country Trading Profiles Jordan, 2011, www.indexmundi.com > *Factbook* > *Countries*.
- Damooei, J & Tavakoli, A, 2006, 'The Effects of Foreign Direct Investment and Imports on Economic Growth: A Comparative Analysis of Thailand and the Philippines (1970-1998)', *The Journal of Developing Areas*, 39 (2), pp: 79-100. www.jstor.org/stable/4193005
- Demirhan, E & Akcay, S 2005, 'The Causality Relationship between Export Growth and Economic Growth: Empirical Evidence from Selected MENA Countries', *Iktisat Isletmeve Finans*, May, 20(230): pp. 124-31. *Department of Statistics of Jordan, 'Annual Reports 1980-2010'*. www.dos.gov.jo/dos_home_e/main/index.htm
- Economy of Jordan, 'Wikipedia, the free encyclopedia, 2011'. en.wikipedia.org/wiki/Jordan
- Edwards, S 1992, 'Trade Orientation, Distortions and Growth in Developing Countries,' *Journal of Development Economics*. [http://dx.doi.org/10.1016/0304-3878\(92\)90056-F](http://dx.doi.org/10.1016/0304-3878(92)90056-F), www.sciencedirect.com/science/article/pii/030438789290056F
- Fosu, AK. 1990, 'Export composition and the impact of exports on economic growth of developing economies', *Economics Letters*, 34, pp. 67-71. <http://www.sciencedirect.com/science/article/B6V84-45DMTB8-JR/2/f39df0ad92668431e182d7bf9e3e2f73>
- Helliwell, JF & Chung, A 1991, 'Macroeconomic Convergence: International Transmission of Growth and Technical Progress,' *Working Paper, NBER*, Cambridge MA. www.nber.org/papers/w3264
- Helpman, E & Krugman, PR 1985, 'Market Structure and Foreign Trade', *MIT Press, Cambridge, MA*. Direct Link International Trade in Jordan 2011, 'Resources for your Trade in Jordan 2011, . www.globaltrade.net/m/c/Jordan.html
- Iscan, T 1998, 'Trade Liberalization and Productivity: A Panel Study of the Mexican Manufacturing Industry', *The Journal of Development Studies*, 34 (5), pp: 123-148 ideas.repec.org/p/dal/wparch/97-05.html
- Jin, JC 2000, 'Openness and Growth: An Interpretation of Empirical Evidence From East Asian Countries', *Journal of International Trade and Economic Development*, 9, 1, 5-17. DOI:10.1080/096381900362517
- Jordan Economy 2011, 'CIA World Factbook - Theodora.com, . http://www.theodora.com/wfbccurrent/jordan/jordan_economy.html Jordan Economy Profile 2012, www.indexmundi.com/jordan/economy
- Kim, et al, 2007, 'Could Imports be Beneficial for Economic Growth: Some Evidence from Republic of Korea, *ERD Working paper series No. 103*, Asian Development Bank. <https://catalogue.lse.ac.uk/Record/1135305>
- Krugman, PR 1984, 'Import protection as export promotion', In: Kierzkowski, H. (Ed.), 'Monopolistic Competition in International Trade', *Oxford University Press*, Oxford. www.econ.ucla.edu/workingpapers/wp619.pdf

Almazari

- Lawrence, R 1999, 'Does a Kick in the Pants Get You Going or Does It just Hurt? The Impact of International Competition on Technological Change in US Manufacturing', In R. Feenstra, ed., *Globalization and Wages*, Chicago: *University of Chicago Press*. www.nber.org/chapters/c6194.pdf
- Lawrence, R & Weinstein, D 1999, 'Trade and Growth: Import-led or Export led? Evidence from Japan and Korea', *NBER Working Paper No. 7264*, National Bureau of Economic Research, Cambridge. www.nber.org/papers/w7264
- Mah, JS 2005, 'Export Expansion, Economic Growth and Causality in China', *Applied Economics Letters*, February, 12(2), 105-07.
article&doi=10.1080/1350485042000314343&magic=repec&7C&7C8674ECAB8BB840C6AD35DC6213A474B5
- Mazumdar, J 2000, 'Imported machinery and growth in LDCs', *Journal of Development Economics*, 65, 209–224. [http://dx.doi.org/10.1016/S0304-3878\(01\)00134-1](http://dx.doi.org/10.1016/S0304-3878(01)00134-1), www.sciencedirect.com/science/article/pii/S0304387801001341
- Miller, SM & Upadhyay, MP 2000, 'The Effects of Openness, Trade Orientation and Human Capital on Total Factor Productivity,' *Journal of Development Economics*, 63, 399-423.
URL: <http://www.sciencedirect.com/science/article/B6V BV-414N6YW-8/2/8a6b747f7178677755765864b85d042b>
- Muendler, MA 2004, 'Trade, Technology, and Productivity: A Study of Brazilian Manufacturers, 1986-1998', *CESifo Working Paper*, 1148. escholarship.org/uc/item/6m96c2r7.pdf
- Parida, PC & Sahoo, P 2007, 'Export-led Growth in South Asia: A Panel Cointegration Analysis', *International Economic Journal* 21, pp. 155-175. www.tandfonline.com/doi/pdf/10.1080/10168730701345414
- Quah, D & Rauch JE 1990, 'Openness and the Rate of Economic Growth', *Mimeo Economics Department*, Massachusetts Institute of Technology and Economics Department, University of California, San Diego. Direct Link
- Tang, CF & Lai, YW 2011, 'The Stability of Export-led Growth Hypothesis: Evidence from Asia's Four Little Dragons', *MPRA Paper*, No. 27962. mpra.ub.uni-muenchen.de/27962/1/MPRA_paper_27962.pdf