An Analysis of the GDP Growth in Jordan after the Trade Agreement with the European Union

Wallaa Abdel Rahman S. Rawashdeh[1], Dr. Navitha Thimmaiah[2]
[1]Research Scholar, DOS in Economics and Co-operation, University of Mysore, Mysuru
[2]Associate Professor, DOS in Economics and Co-operation, University of Mysore, Mysuru

Abstract

Trade agreements are when two or more nations agree on the terms of trade between them. They determine the tariffs and duties that countries impose on imports and exports. All trade agreements affect international trade. The aim was to study GDP Growth in Jordan after the Trade Agreement with the European Union. The data for this study was collected from secondary sources. The data was collected for the years 1982 to 2021. The data were assessed for 20 years before the trade agreement between Jordan and the European Union (1982-2001) and 20 years post-implementation of the trade agreement between Jordan and the European Union (2002-2021). The results of the study showed that the growth in the GDP of Jordan after the trade agreement with the EU was higher than the growth in the GDP of Jordan before the trade agreement with the EU.

Keywords: European Union, GDP, International Trade, Jordan and Trade Agreement

Introduction

International trade is the exchange of goods and services between countries. Total trade equals exports plus imports; in 2019, world trade value was at $38.96 trillion, up 10% from 2018. 25% of the goods traded are machines and technology like electrical machinery, computers, nuclear reactor, boilers, and scientific and precision instruments. Automobiles, including cars, trucks, and buses, contributed 9%, and mineral fuels like oil, gas, coal and refined products accounted for 14.4%. Commodities like plastics, iron, organic chemicals, pharmaceuticals, and diamonds added up to 13.2%.

International trade accounts for about 27% of the global economy, and until the 2008 financial crisis, world trade grew 1.9 times faster than economic growth. Until 2017, trade grew more slowly than the global economy. Trade agreements between countries are drafted to protect trade and ensure its free flow.

Trade agreements are when two or more nations agree on the terms of trade between them. They determine the tariffs and duties that countries impose on imports and exports. All trade agreements affect international trade. The central tenet of international economics is that lowering trade barriers increases welfare. Trade agreements between countries lower trade barriers on imported goods. According to theory, they should provide welfare gains to consumers from increased variety, access to better quality products, and lower prices.

Trade agreements encourage the unrestricted flow of goods and services and their cheaper availability. Smaller firms are more affected by tariffs and non-tariff barriers (NTB) and benefit much more from trade agreements than their multinational counterparts. Free trade agreements are designed to increase trade between two or more countries. Increased international trade has the following six main advantages: Increased Economic Growth: The U.S. Trade Representative Office estimates that NAFTA increased U.S. economic growth by 0.5% a year.

Free trade occurs when it is left to its own devices. This means there is no interference with quotas, tariffs, or other restrictions when completing an agreement. The trade is based on market forces and demands instead of being encouraged through subsidies or restricted through taxation. No discrimination will occur.

Advantages of International Trade

Exports create jobs, boost economic growth, and give domestic companies more experience in producing for foreign markets. Over time, companies gain a competitive advantage in global trade, and research shows that exporters are more productive than companies that focus on domestic trade. In addition, imports allow foreign competition to reduce consumer prices and give shoppers a wider variety of goods and services—like tropical and out-of-season fruits and vegetables.

Disadvantages of International Trade

The only way to boost exports is to make trade easier overall. Governments do this by reducing tariffs and other blocks to imports. That reduces jobs in domestic industries that can't compete on a global scale and leads to job outsourcing, which is when companies relocate call centers, technology offices, and manufacturing to countries with a lower cost of living. In addition, countries with traditional economies could lose their local farming base as developed economies subsidize their agribusiness. Both the U.S. and European Union do this, which undercuts the prices of the local farmers.

Review of Literature

Swarnali Ahmed Hannan (2016) in the working paper 'The Impact of Trade Agreements: New Approach, New Insights' states that the Trans-Pacific Partnership (TPP) has reinvigorated research on the ex-ante impact of trade agreements. The results from these ex-ante models are subject to considerable uncertainties and need to be complemented by ex-post studies. The paper fills this gap in recent literature

by employing Synthetic Control Methods (SCM) – currently extremely popular in micro and macro studies – to understand the impact of trade agreements in the period 1983–1995 for 104 country pairs. The key advantage of using SCM to address selection bias – one of the persisting issues in trade literature – is that it allows the effect of unobserved confounder to vary with time, as opposed to traditional econometric methods that can deal with time-invariant unobserved country characteristics. Using the SCM approach, the paper finds that trade agreements can generate substantial gains, on average an increase of exports by 80 percentage points over ten years. The export gains are higher when emerging markets have trade agreements with advanced markets. The paper shows that all the countries in NAFTA have substantially gained due to NAFTA. Finally, there is some evidence that trade agreements can potentially lead to a slight import diversion, but not an export diversion.

Pinelopi K. Goldberg and Nina Pavcnik (2016) in the working paper 'The effects of Trade Policy' critically examine a large body of evidence on the effects of trade policy on economically important outcomes. The researchers focus on actual as opposed to hypothetical policy changes. The researchers begin with a discussion of the methodological challenges one faces in the measurement of trade policy and the identification of its causal effects. The researchers then discuss the evidence on the effects of trade policy on a series of outcomes that include: (1) aggregate outcomes, such as trade volumes (and their price and quantity subcomponents), the extensive margin of trade, and static, aggregate gains from trade; (2) firm and industry performance, i.e., productivity, costs, and markups; (3) labor markets, i.e., wages, employment, and wage inequality; (4) long-run aggregate growth and poverty, secondary distortions and misallocation, uncertainty. The researchers conclude that the perception that trade policy is no longer relevant arises to a large extent from the inability to precisely measure the various forms of non-tariff barriers that have replaced tariffs as the primary tools of trade policy. Better measurement is thus an essential prerequisite of policy-relevant research in the future. Despite measurement challenges and scant evidence on the impact of actual policy changes, existing evidence when properly interpreted points to large effects of trade policy on economically relevant outcomes, especially when trade policy interacts with other developments, e.g., technological change.

Maria Donner Abreu (2013) surveys preferential rules of origin applied by 192 regional trade agreements (RTAs) covering trade in goods notified to the GATT/WTO up to 1 November 2010. It takes into account the preferential rules of origin that were notified to the WTO; whenever known and available, modifications to the original rules of origin have been updated. This study contains two basic features: a description of some key elements of preferential rules of origin in RTAs, followed by an attempt to

provide a reality check of how these rules affect actual trade. That is done by an ex-post examination of data on the use of RTAs' preferences and, in their absence, of their margins of preference (MOPs).

Panagiotis Liargovas (2013) in the working paper 'EU trade policies towards neighboring countries' reviews the complex EU trade policies towards neighbouring countries. It reveals that EU neighbouring countries do not form a homogenous group, neither in terms of geography nor in terms of income. Israel, for example, has a GDP per capita that in many cases is more than 10 times larger compared to the poorest EU neighbors (e.g. Armenia, Georgia, Egypt, Moldova, and Morocco). The EU has applied a varying degree of trade integration and trade strategies to its neighbors, ranging from shallow to deep integration and from bilateral to multilateral strategy. The effectiveness of such EU trade policies is critically discussed.

Benassi et al. (2012), in their study relying on highly disaggregated sectoral data, confirmed their earlier results while indicating significant differences across the studied countries as far as the effects of the new FTAs were concerned. Only the North African economies seemed to have experienced growth in the flow of exports directly associated with the implementation of the FTA. The authors suggested that the diversity of trade patterns of the investigated economies could have underlain the obtained results, with the North African countries trading primarily with the EU, while Lebanon and Jordan were more oriented towards their Middle Eastern partners.

Objectives of the Study:

- To study GDP Growth in Jordan after the Trade Agreement with the European Union

Hypothesis of the Study

H_1 - There has been positive growth in the GDP of Jordan after the trade agreement with the EU.

Research Methodology

The data for this study was collected from secondary sources. The data was collected for the years 1982 to 2021. The data were assessed for 20 years before the trade agreement between Jordan and the European Union (1982-2001) and 20 years post-implementation of the trade agreement between Jordan and the European Union (2002-2021). The data was collected from different reports - trade agreement with the EU, Report from the Commission to the European Parliament, The Council, The European Economic, and Social Committee and the Committee of the regional books, articles, several websites, and various daily newspapers, magazines, books, and journals describing trade agreement in Jordan and EU. The data

collected would help analyze the impact of the trade agreement between Jordan and the EU. Secondary data for the study was collected from the published records with respect to the trade agreement between Jordan and the EU.

Data Analysis

The relations between the European Union (EU) and the Hashemite Kingdom of Jordan are outlined by several agreements and close cooperation. The EU is Jordan's main trading partner. Jordan's relations with the EU are within an action plan and association agreement as part of the European Neighbourhood Policy. Jordan is also a member of the EU's Union for the Mediterranean. The EU's Association Agreement with Jordan was signed on 24 November 1997. It entered into force on 1 May 2002, replacing the Co-operation Agreement of 1977. The agreement will progressively establish a free trade area between the EU and Jordan over 12 years, in conformity with WTO rules.

The European Union is the main and most reliable partner and supporter of Jordan and Jordanians. The EU has stood by Jordan in addressing the country's economic and social situation and facing the repercussions of the neighbouring conflicts in Syria, Iraq, and the Middle East. Despite those challenges, Jordan managed to maintain internal stability and continued to play a wise, stabilizing, and moderating role in the region.

Jordan Trade Statistics

Table 1: Economic Growth in Jordan from 1982 to 2021

Pre-reform Period				Post-reform Period			
Years	GDP (in Billions of US$)	GDP Per Capita	GDP Rate (in %)	Years	GDP (in Billions of US$)	GDP Per Capita	GDP Rate (in %)
1982	4.68	1826	7.03	2002	9.58	1802	5.78
1983	4.92	1842	-2.22	2003	10.20	1876	4.16
1984	4.97	1784	4.29	2004	11.41	2045	8.57
1985	4.99	1722	-2.71	2005	12.59	2183	8.15
1986	6.40	2123	5.50	2006	15.06	2513	8.09
1987	6.76	2157	2.32	2007	17.11	2735	8.18
1988	6.28	1928	1.46	2008	22.66	3456	7.23
1989	4.22	1242	-10.73	2009	24.54	3560	5.02
1990	4.16	1167	-0.28	2010	27.13	3737	2.31
1991	4.34	1155	1.61	2011	29.52	3853	2.74
1992	5.31	1335	14.35	2012	31.63	3910	2.43
1993	5.61	1334	4.49	2013	34.45	4044	2.61
1994	6.24	1414	4.97	2014	36.85	4131	3.38
1995	6.73	1466	6.20	2015	38.59	4164	2.50
1996	6.93	1464	2.09	2016	39.89	4175	1.99
1997	7.25	1495	3.31	2017	41.41	4232	2.09

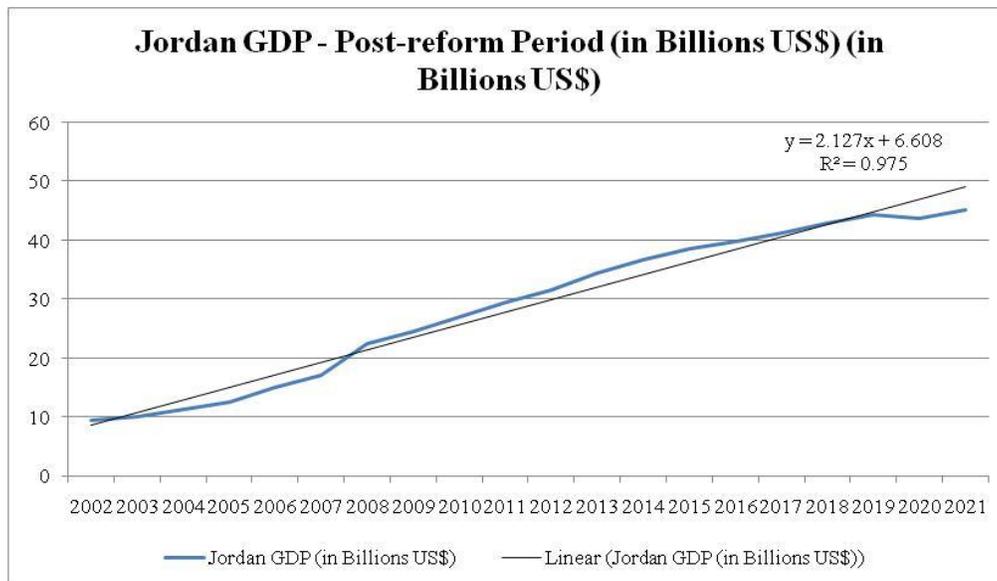|						
1998	7.91	1600	3.01	2018	42.93	4308	1.93
1999	8.15	1620	3.39	2019	44.50	4405	1.96
2000	8.46	1652	4.25	2020	43.70	4283	-1.55
2001	8.98	1720	5.27	2021	45.24	4406	2.21
CAGR	0.0331	-0.0030	-0.0143	CAGR	0.0807	0.0457	-0.0469

Source: World Bank, Jordan Trade Statistics (1982-2021)

The table shows the economic growth in Jordan (in Billions of US$) from 1982 to 2021. It was found that the GDP growth rate was 7.03% in 1982, which decreased to 4.29% in 1984. The growth rate was 5.50% in 1986, which increased to 14.35% in 1992. The growth rate decreased to 6.20% in 1995 and reduced to 5.27% in 2001. During the period 1982 to 2001, the growth rate of 14.35% in 1992 was the highest, and the growth rate of -10.73% in 1989 was the lowest. It was found that the GDP growth rate was 5.78% in 2002, which increased to 8.18% in 2007. The growth rate was 7.23% in 2008, which decreased to 2.50% in 2015. The growth rate decreased to 1.99% in 2016 and dropped to 1.96% in 2019. The growth rate was -1.55% in 2020 and stood at 2.21% in 2021. During the period 2002 to 2021, the growth rate of 8.57% in 2004 was the highest, and the growth rate of -1.55% in 2020 was the lowest.

It was observed that the economic growth in Jordan declined in the 1980s and increased in the 1990s. The increase was significant after liberal economic policies were introduced by King Abdullah II post his accession to the throne. This increased the overall performance of the Jordanian economy. The global financial crisis of 2008 hit the world economies to collapse, and the reduction in economic growth in Jordan in 2011 was due to the Arab spring, causing a series of protests and uprisings against the government.

Graph 1: Economic Growth in Jordan in Pre-reform and Post-reform Period from 1982 to 2021

$y = 0.193x + 4.135$
$R^2 = 0.599$

Jordan GDP - Post-reform Period (in Billions US\$) (in Billions US\$)

$y = 2.127x + 6.608$
$R^2 = 0.975$

Legend: Jordan GDP (in Billions US\$) — Linear (Jordan GDP (in Billions US\$))
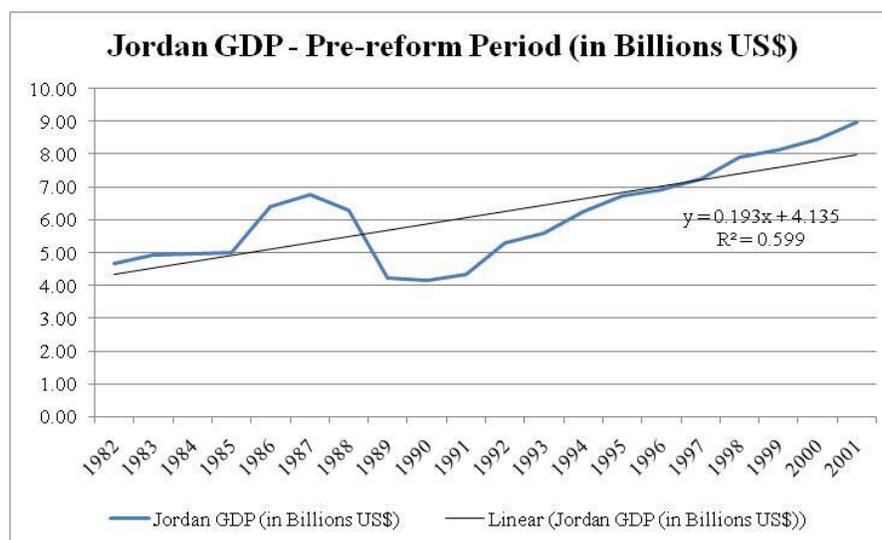
Testing of Hypotheses

H_1 - There has been positive growth in the GDP of Jordan after the trade agreement with the EU.

Table 2(a): Results of Regression (Pre-reform Period)

Dependent Variable: GDP in Jordan

Variable	Coefficients	Standard Error	t-value	Sig.
Constant	-0.696	1.053	-0.661	0.517
Exports	0.458	0.453	1.011	0.326
Imports	1.257	0.402	3.129	0.250
No. of Observations = 40 ; R^2 = 0.724 ; F value = 24.88				

The above table shows the regression result between the dependent variable, GDP in Jordan, and the independent variables, Jordanian exports, and imports before the trade agreement with the EU. R Square is 0.724 indicating the variation in GDP in Jordan which is explained by Jordanian exports and imports to the extent of 72.4%. The regression coefficient of Jordanian exports and imports is 0.458 and 1.257 but the effect of exports and imports on the GDP growth in Jordan is statistically insignificant as the significance value is higher than 0.05 (5%). It shows that an increase in exports and imports by one billion US\$ leads to a decrease in the GDP growth of Jordan by 0.458 and 1.257 billion US\$. There has been an insignificant growth in the GDP of Jordan before the trade agreement with the EU.

Table 2(b): Results of Regression (Post-reform Period)

Dependent Variable: GDP in Jordan

Variable	Coefficients	Standard Error	t-value	Sig.
Constant	-6.310	4.730	-1.334	.000
Exports	0.785	1.740	0.451	.001
Imports	1.435	1.109	1.294	.005
No. of Observations = 40 ; R^2 = 0.782 ; F value = 30.593				

The above table shows the regression result between the dependent variable, GDP in Jordan, and the independent variables, Jordanian exports, and imports after the trade agreement with the EU. R Square is 0.782 indicating the variation in GDP in Jordan which is explained by Jordanian exports and imports to the extent of 78.2%. The regression coefficient of Jordanian exports and imports is 0.785 and 1.435 which indicates a positive effect of exports and imports on the GDP growth in Jordan which is statistically significant as the significance value is lesser than 0.05 (5%). It shows that an increase in exports and imports by one billion US$ leads to an increase in the GDP growth of Jordan by 0.785 and 1.435 billion US$. There has been positive growth in the GDP of Jordan after the trade agreement with the EU.

The results of regression show that the growth in the GDP of Jordan after the trade agreement with the EU was higher than the growth in the GDP of Jordan before the trade agreement with the EU.

Results of Chow Test

Score	C.V.	P-Value	Stable
0.966	3.259	1.690%	FALSE

The results of the Chow test show that the regression coefficients are statistically indifferent to the entire data set. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted.

Conclusion

The relations of Jordan with the EU are within an action plan and association agreement as part of the European Neighbourhood Policy. Jordan is also a member of the EU's Union for the Mediterranean. The EU's Association Agreement with Jordan was signed on 24 November 1997. It entered into force on 1 May 2002, replacing the Co-operation Agreement of 1977. The agreement will progressively establish a free trade area between the EU and Jordan over 12 years, in conformity with WTO rules.

The strategy behind the Association Agreement was focused on trade liberalization, including the reduction of EU tariffs and quotas, complemented by support to export-oriented SMEs. The implicit assumption was that export-

based growth would follow. This strategy has been fully implemented over the last twenty years. Jordanian industrial products have gained access to the EU market free of tariffs and quotas, and a critical mass of export-oriented Small and Medium Enterprises (SMEs) has been supported. This was announced in August 2016 and became effective in 2017 until 2030 for activities in qualifying zones.

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