اسم المقال: دور المساعدات الخارجية في تحقيق الاستدامة للقطاعات الصناعية المختلفة في فلسطين

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The Role of Foreign Aid in Achieving Sustainability of the Different Industrial Sectors in Palestine*

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Abstract:

The purpose of this paper is to examine the role of foreign aid in achieving sustainability in the different industrial sectors of the Palestinian economy. The Palestinian industrial sector was divided into 15 sectors, and an analysis was conducted to evaluate the effect of foreign aid on them. The data was collected from the Palestinian Central Bureau of Statistics and the Palestine Monetary Authority from 1996 to 2014. The unit root test was performed for each of the 17 variables. Then a cointegration test was performed for each of the 15 industrial sector with both the foreign aid for developing and supporting the Palestinian Authority's (PA) budget. After completing these tests, a Granger Causality Test and Fully Modified Least Squares (FM-OLS) regression method were performed for the cointegrated industries. The analysis showed that the foreign aid for development had a negative impact on four of the industrial sectors, but with a positive impact for supporting the PA's budget on two of the industrial sectors.

Keywords: Foreign Aid, Fully Modified Least Square Method, Granger Causality, Palestinian Industries, Sustainability.

دور المساعدات الخارجية في تحقيق الاستدامة للقطاعات الصناعية المختلفة في فلسطين

ملخص:

الهدف من هذه الورقة هو دراسة دور المساعدات الخارجية في تحقيق الاستدامة في مختلف القطاعات الصناعية للاقتصاد الفلسطيني. تم إجراء تحليل السلاسل الزمنية لتقييم تأثير المساعدات الخارجية على استدامة كل قطاع من القطاعات الصناعية وعددها 15. تم الحصول على البيانات المستخدمة في التحليل من الجهاز المركزي للإحصاء الفلسطيني وسلطة النقد الفلسطينية للفترة الزمنية من عام 1996 إلى عام 2014. استخدم اختبار جذر الوحدة (Unit Root Test) على 17 متغيراً. ثم تم عمل اختبار التكامل المشترك (Cointegration Test) بين المساعدات الخارجية الموجهة للتنمية والتطوير وكل قطاع من القطاعات الصناعية ال 15 على حده وبين المساعدات الخارجية الموجهة لدعم موازنة السلطة الفلسطينية وكل قطاع من القطاعات الصناعية الـ 15 على حده. وبعد الانتهاء من هذه الاختبارات تم فحص فرضية سببية جرانجر ونموذج تعديل انحدار المربعات الصغرى (Fully Modified Least Square Regression Model). أشارت نتائج تحليل السلاسل الزمنية إلى أن المساعدات الخارجية الموجهة للتنمية والتطوير كان لها تأثير سلبي على أربعة قطاعات من القطاعات الصناعية. ومع ذلك، كان للمساعدات الخارجية الموجهة لدعم ميزانية السلطة الفلسطينية تأثيراً إيجابياً على اثنين من القطاعات الصناعية.

كلمات مفتاحية: الإستدامة، المساعدات الخارجية، الصناعات الفلسطينية، اختبار سببية جرانجر، اختبار نموذج تعديل انحدار المربعات الصغرى.

Introduction:

The purpose of this paper is to examine the role of foreign aid in achieving sustainability in the different industrial sectors of the Palestinian economy. The importance of the topic lies in the fact that it is an evaluation of the effect of foreign aid on the sustainability of the Palestinian industrial sector. (The industrial sector plays an important role in the process of economic development in Palestine) (USAID, 2009, p.1). It is also a chance for us to assess the role of the Palestinian Authority (PA) in utilizing foreign aid in order to trigger economic growth and development despite "the ways in which Israeli policies divert aid" (Hever, 2015, p.2).

Since the formation of the PA, policies aimed for growth were implemented. Strong industrial manufacturing sector seemed to be a necessity for the required growth (USAID, 2009, p.1). In order to achieve this, the PA created an investment friendly legal framework in order to encourage investment. They also held investment encouragement conferences in Bethlehem, Nablus, and London. In addition, they established a new industrial zone in Gaza at the end of the last century (USAID, 2009, p.50), but the continuous blockade of Gaza made it dysfunctional. Nonetheless, there are serious talks of creating a number of these zones in the West Bank (USAID, 2009, p.50). Finally, the PA had signed a number of free trade agreements that are not fully utilized yet (USAID, 2009, p.51).

The donor countries aided in developing the Palestinian economy through foreign aid that is given to the PA. Before taking a closer look at

foreign aid, it is important for us to look at the Israeli-Palestinian economic and political ties. (We estimate that at least 72% of international aid ends up in the Israeli economy) (Hever, 2015, p.1).

The signing of (Paris Accords) was in April, 1994. It included economic agreements and succeeded in creating a situation that is appropriate to sourcing Israeli products to aid organizations. Furthermore, the restrictions on the movement of Palestinians imposed by Israel forced aid agencies to utilize Israeli transportation companies.(All these factors contribute to transforming aid and the occupation into an important export sector for the Israeli economy, a source of foreign currency, and a source of income for many Israeli companies (Hever, 2015, p.3). Moreover, Port and storage fees are paid to Israeli companies or to government institutions. On top of that, the Israeli authorities levy special taxes on aid agencies, termed 'security fees,' and levied from every truck carrying goods into the OPT" (Hever, 2015, p.3).

The foreign aid provided to PA is divided into two components, foreign aid for supporting the PA's budget and that for developing projects. Appendix 1 shows the history of foreign aid to Palestine.

We noticed that most of foreign aid was going to the development purposes from the year 1996 to 2000. Since the beginning of the second Intifada in 2001, most of the aid, 62.5%, went to support the PA's budget. Soon after the end of the second Intifada, mainlyafter 2003, development aid reached 57.9%. In 2004 all the aid was directed to current expenditure indicating how PA's current spending is financed by development expenditure account. After 2005, PA's current spending received most of the foreign aid (Revenues expenditure, and financing sources of PNA fiscal operations cash basis, 2015).

This pattern continued to the second quarter of 2015 during which foreign aid increased and reached 20% of the total public revenue. At the same time, public spending increased. 96% was directed to current spending and 4% to

developmental spending. (Economic & Social Monitor, 2015, p.1)

The gross value added to the Palestinian industrial sector contributed to approximately 19.5% of the GDP in 1994. This percentage decreased to 12.7% in the year 2014 (Value Added by Economic Activities as a percentage of GDP for the Years 1994 - 2014 in Current Prices, 2016). Table 2, in Appendix II shows the value added for the economic activities as a percentage of the GDP for the year 1994 and 2014 for the Palestinian economy, and the different economic activities that make up the Palestinian economy, which indicates clearly that the industrial sectors are still at their nascent stage.

The graph at appendix II shows the percentage of contribution to the GDP for each economic activity of the Palestinian economy for the year 2014.

Literature Review

There is a sizable literature on the effect of foreign aid on economic growth. Despite this voluminous literature, a fair summary of the research that was done on this topic indicates that there is no robust evidence of either a positive or negative correlation between the inflows of foreign aid and the economic growth and development of poor nations. (The Effect of Foreign Aid on Economic Growth in Developing Countries) by E.M.Ekanayake and Dasha Chatma tried to analyze the effect of foreign aid on economic growth of developing countries. Data on 85 developing countries from Asia, Africa, Latin America, and the Caribbean were collected from 1980 to 2007. The hypothesis that foreign aid can promote economic growth in developing countries was tested. The method of panel data series for foreign aid was utilized. The regional and income level differences were taken into consideration in the analysis. Unfortunately, the results had further contributed to the ambiguity of the effects of foreign aid because the analysis showed that the foreign aid were with mixed effects on economic growth in developing countries (Chatma and Ekanayake, 2010. P.1).

Another attempt was conducted by Raghuram Rajan and Arvind Subramanian in their article titled "Aid, Dutch disease, and

manufacturing growth). The paper examined the effects of foreign aid on the manufacturing sector. They utilized a methodology that examined the variation within countries and across the manufacturing sectors. This methodology had also corrected for possible reverse causality. The results had indicated that foreign aid had systematic adverse effect on a country's level of competitiveness. This was clearly demonstrated the lower relative growth rate of exportable industries. The paper provided some evidence that the channel for the effects of the foreign aid was through the appreciation of the real exchange rate which is caused by the capital inflows. Thus in part, this suggested why it is hard to find robust evidence that foreign aid helps nations grow (Rajan and Subramanian, 2011, p.106).

Due to the unique situation of Palestine, … –where one of the factors that contribute to its uniqueness is the absence of a local currency, we are interested in finding the effect of foreign aid on the Palestinian economic growth. The Palestine Monetary Authority (PMA) Research and Monetary Policy Department published a paper entitled (The Economic and Social Effect of Foreign Aid in Palestine), which dealt with the assessment and evaluation of the economic and social effects of foreign aid to Palestine from 1994 to 2009. The economic impact was evaluated using the endogenous growth model, whereas the social effect was assessed using the qualitative and descriptive analysis. The results of the economic analysis indicated that most of the foreign aid was consumed and invested, thus implying that the Palestinian National Authority (PNA) cannot depend on foreign aid to achieve sustainable economic development (Atallah, Naser, and Sarsour, 2011, p.4).

Nonetheless, the PMA Research and Monetary Policy Department did not address the Dutch Disease symptoms. "The Impact of Foreign Aid and Donations to Palestine on Development of its Economy Alternative Israeli-Palestinian Economic Interaction Regimes" by Sharbel Shoukair, examined whether or not Palestine suffered from the Dutch Disease symptoms, and if so, to identify the causes. The GDP was expressed in terms of foreign currency constraints and it was determined that almost all

the sources of foreign currency were exogenous in the special case of the Palestinian economy.The Dutch Disease symptoms of the Palestinian economy and its major factors were theoretically and empirically analyzed. The symptoms at the period of high foreign aid were demonstrated in four factors: the increase in unemployment rate, low growth in the GDP, an increase in the share of the non-tradable sector and a decrease in tradable sector, and a decrease in the proportion of exports. Thus when foreign aid soared up to 64% of the GDP in 2007, it caused ithe per capita GDP in 2007 to decrease to almost the same level as it was 20 years ago. Thus, unemployment increased dramatically, and exports (about 90% to Israel) remained relatively low. Tradable sectors decreased and non-tradable sector increased. These findings fit the symptoms of the Dutch Disease (Shoukair, 2013, p.1).

A more general view of the effects of foreign aid on the Macroeconomic level was taken by Omar Abu Eideh in his paper titled (The Impact of External Grants and Aids on the Palestinian Macro Economic Indices: An Econometric Study of the Period 1994 – 2013). To fulfill his objective, an econometric model was adapted based on two equations to test the impact on economic growth in Palestine. The results showed apositive relationship between the grants, aid and macroeconomic indices. Among the macroeconomic variables were the exports of goods and services with 0.47% as a result of an increase in grants and aids. Thus foreign aid is contributing to the economic growth in Palestine (Abu-Eideh, 2015, p.198).

After reviewing previous papers, we notice that none of the researchers discussed the effects of foreign aid on the different industrial sectors. In this paper, we want to examine which industries are affected by the foreign aid, and who is exactly benefiting from foreign aid among the different industrial sectors in Palestine.

Methodology

The Palestinian economy was partially separated from the Israeli economy in 1994. The PA and the donor countries had the goal of creating an independent Palestinian economy that can grow side by side with the Israeli economy.

This paper tries to measure the effect of foreign aid on the Palestinian industrial sector. This is because a successful industrial sector will result in the stimulation of the economy as a whole, and will contribute positively to the GDP, and will lead to better roads and better services. Thus the industrial sector plays a vital role in the development of the economy, through the creation of many linkages in the service sector. The investment in this sector is considered as long-term investments (USAID, 2009, p.1).

In order to know which industries are benefiting from foreign aid, we will divide the Palestinian industrial sector into fifteen sectors. These sectors, in addition to stone cutting they the manufacturing of:

1. food and beverages products.
2. tobacco products
3. textiles
4. wearing apparel.
5. leather and related products
6. woods and products of wood and cork
7. paper and its products.
8. chemicals and chemical products this includes the manufacture of basic pharmaceutical products and pharmaceutical preparations.
9. rubber and plastic products.
10. non-metallic and other non-metallic mineral products.
11. metals, this includes the manufacture of basic metals and fabricated metal; manufacture of nonmetal; manufacture of machinery and equipment.
12. electrical equipments, machinery and equipment n.e.c, and other transportation equipment.
13. transportation, this includes the manufacture of motor vehicles, trailers, and semi-trailers.
14. furniture.

We notice that traditional industries provide most of the country's industrial sector.

In this paper, we will use the time series analysis as the methodology for analyzing the data. The general form of the times series analysis is represented by the following equation:

$$y_t = \beta_1 + \beta_2 x_t + \beta_3 y_{t-1} + \ldots + \varepsilon_t$$

Where y_t is the dependent variable, x_t contemporaneous (and perhaps lagged) factors ε_t is the disturbances, and y_{t-1} is its own past. Thus, the path of the dependent variable y_t is described by the above variables including the disturbances. Here the time series is a single occurrence of a random event (Greene, 1995, p.413).

In a stochastic time series model, the generating process is a combination of a starting value and a sequence of a purely random component, hence, a zero-mean "innovations" ε_t in a dynamic structure that produces the y_t variable (Greene, 1995, p.559). Thus unlike the deterministic models, y_t is not dependent on the t or the y(t), but rather dependen on an initial value of y_0 and a purely random component of a history of innovations of ε_1, ε_2, in other words, observations of the variable y_t are realizations of a random variable where we assume these random variables are a part of an infinite sequence of random variables. This sequence is called a stochastic process (Greene, 1995, p.415).

We notice that in a stochastic time series models the ε_t no longer represents error terms or unexplained deviations of y_t from a predetermined time path of y(t), but instead they are unexpected new changes or innovations in the level of y_t which will influence the new levels of y_{t+n}.

Stationary is an important concept to be examined; it guarantees that there are no fundamental fluctuations in the structure of the process. Thus, this property allows the possibility of predicting future values, i.e. the absence of this property for a variable would make it either impossible or difficult to predict future values.

To test for the stationary of a variable we will use the Unit-Root test. Assume y is an ARMA (p,q) processes that are polynomials of lag operators L, then the y model can be written as

$$y_t = \beta_1 y_{t-1} + \ldots + \beta_p y_{t-p} + \varepsilon_t + \theta_1 \varepsilon_{t-1} + \ldots + \theta_q \varepsilon_{t-q}$$

The above equation can be rewritten as

$$(1 - \beta_1 L - \ldots - \beta_p L^p) y_t = (1 + \theta_1 L + \ldots + \theta_q L^q)\, \varepsilon_t$$

Therefore $\beta(L)Y_t = \theta(L)\varepsilon_t$, where $\beta(L)$ is the pth order polynomial in L that recaptures the AR dynamics in the process and $\theta(L)$ is the qth order

polynomial that captures the MA dynamics. Since we are dealing with polynomials we can find their roots λ. The roots are interpreted as the value of L such that $\beta(\lambda) = 0$ or $\theta(\lambda) = 0$ (Greene, 1995, p.556).

To determine the stationary or nonstationarity of the series we are concerned with the roots of an AR polynomial $\beta(L)$. We calculate the modulus of the root $\lambda = a \pm bi$. The modulus is equal to the $(a^2+b^2)^{1/2}$. However, if λ is real, then $b = 0$ and the modulus is equal to the absolute value of a. The Unit Root Rule for stationarity states that if the modulus of any root of $\beta(L) \leq 1$ then the series is nonsationary. Thus, for the series to be stationary all the roots of $\beta(L)$ must lie outside the unit root circle in the complex plane (Greene, 1995, p.556).

To achieve stationarity, Hendry and Juselius (2000) demonstrated that when data is non-stationary purely due to the reason of a unit root (integrated once, I(1)), the data can be brought back to stationary by taking the difference. Thus, in this case we are looking at the first difference of the series –the change that occurs from one period to the next, the quantity of $Y_t - Y_{t-1}$. Taking the average of the first difference can help us predict the next step. In this case, we will have the following model:

$$Y_t = Y_{t-1} + \alpha$$

Where α is the average or the mean of the first difference. This is the so-called "random walk" model. Here you try to forecast the next value of Y_t by predicting the difference. If taking the first difference produces a stationary process we say that the series Y_t is to be integrated of order one, and denoted by I(1). A series is integrated of order d, denoted by I(d), i.e. the series becomes stationary after being differenced d times (Greene, 1995, p.559).

So now let us consider the case of a simple random walk for the data generating process (DGP) with an independent normal (IN) error term that has a mean of zero and a constant variance as follows:

$$x_t = x_{t-1} + \varepsilon_t \ \ where \ \ \varepsilon_t \ \ \sim IN[0.\sigma^2_{\varepsilon_t}]$$

Subtracting x_{t-1} from both sides:

$$\Delta x_t \sim IN\left[0.\sigma^2_{\varepsilon_t}\right]$$

the change in x is stationary, because Δx_t cannot have a unit root and is I(0). Thus integrating a series twice -I(2)- must make it stationary. Nonetheless, we are only interested in the first difference. Thus the growth rate of variable and not the growth rate of the growth rate given by the second difference.

Generally, if two variables are integrated to different orders, the linear combinations of the two variables will have an order of the higher of the two orders. Thus if y_t is I(1) and x_t is I(0) then the linear combination given by regressing y_t on x_t represented by $e_t = y_t - bx_t$ will be I(1). If two independent variables y_t and x_t are non-stationary, but there exists a stationary linear combination of the integrated variables, then the two variables are cointegrated. In this case, there exists a long-run relationship between the two variables were the two variables drift together. This relationship is distinguished from the short-term dynamics that is measured by the relationship between the deviations of y_t from its long-term trend and deviations of x_t from its long-term trend. Nonetheless, cointegration test does not determine the direction of the causality (Greene, 1995, p.567).

In our case, **we** will use the cointegration to test whether foreign aid for development is cointegrated with each of the 15 industrial sectors. Then we test whether foreign aid for supporting the PA's budget is cointegrated with each of the 15 industries.

A common question that frequently manifests in time series analysis is whether one economic variable can assist in forecasting another economic variable. For example, when looking at post war data, we can see that nearly all economic recessions are proceeded by large increases in the price of petroleum. Thus, can we conclude that oil shocks cause economic recessions? The answer to this question was tackled by Granger (1969) and popularized by Sims (1972). Granger had utilized F-tests to test for causality. He tested whether lagged information on a variable Y provides any statistically significant information on regarding another variable X in the presence of lagged X.

There are many methods in order to implement Granger causality test.

To determine the direction of the causality between the cointegrated industrial sectors and with either the foreign aid for development or the foreign aid for supporting the PA's budget, we apply the Granger Causality Test.

Finally, we look at the sign of the relationship between the two cointegrated variables. In order to determine the sign of the relationship we will use the Fully Modified Least Squares regression method (FM-OLS). This regression method was developed to determine the optimal estimates of cointegrating regressions. As the name implies, the Least Squares method was modified to take in consideration the serial correlation effects and the endogenity of regressors resulting from the existence of a cointegrated relationship (Phillips, 1995, p.1023). Thus we run the FMOLS regression model for the cointegrated industrial sectors and both the foreign aid for development and supporting the PA's budget.

Results

The data was collected covered the years from 1996 to 2014. The Eviews software was used to perform the time series analysis.

We will start our analysis with the unit root test, which will determine whether the variables are stationary or non-stationary. We will start by testing the aid for development variable. Hence we have the following hypothesis:

H_0: AIDDEV has a unit root

H_A: AIDDEV has no unit root

Where AIDDEV represents foreign aid for development projects. Using $\alpha = 0.05$ and the p-value of the t-test for the Augmented Dickey-Fuller test is 0.0078 – thus $\alpha >$ p-value, we reject the null hypothesis, and thus AIDDEV has no unit root at the first difference with a lag length of 3.

Now we will repeat the unit root test for the rest of the variables. We will have the following results:

Table 3:
Augmented Dickey Fuller (ADF) test results

Variable Name	Unit Root
AIDDEV	No Unit Root at 1st difference
AIDBUD	No Unit Root at 1st difference
FOOD&BEVERAGES	No Unit Root at 1st difference
STONE	No Unit Root at 1st difference
TOBACCO	No Unit Root at 1st difference
TEXTILE	No Unit Root at 1st difference
WEAR APPRL	No Unit Root at 1st difference
LEATHER	No Unit Root at 1st difference
WOOD	No Unit Root at 1st difference
PAPER	No Unit Root at 1st difference
CHEMICAL	No Unit Root at 1st difference
RUBBER&PLASTIC	No Unit Root at 1st difference
NONMETAL	No Unit Root at 1st difference
METAL	No Unit Root at 1st difference
MACHINE&EQUIP	No Unit Root at 1st difference
TRANSPORTATION	No Unit Root at 1st difference
FURNITURE	No Unit Root at 1st difference

Where AIDBUD is foreign aid for supporting the PA's budget. A cointegration test will be used to show whether each of the 15 sectors are cointegrated with the foreign aid for development.

Table 4:
Bivariate Johansen Cointegration test results relating Foreign Aid for the Development Projects and the 15 Industrial Sectors

Cointegration	
Stone Cutting	Yes
Food & Beverages	Yes
Tobacco	No
Textile	No
Wear Apparel	No
Leather	No
Wood	No
Paper	No
Chemical	Yes
Rubber & Plastics	No
Non-metal	Yes

Cointegration	
Metal	No
Machinery & Equip.	No
Transportation	No
Furniture	No

This leads us to the Pairwise Granger Causality Test. Results are presented in the following table for the pairs of variables that demonstrated cointegrating relationship:

Table 5:
Results of Granger causality tests

		Cointegration	Causality (lag)
Stone Cutting	Foreign Aid for Development Projects	Yes	Aid to stone (2)
Food & Beverages	Foreign Aid for Development Projects	Yes	Food to aid (1)
Chemicals	Foreign Aid for Development Projects	Yes	Aid to chemical (3)
Nonmetal	Foreign Aid for Development Projects	Yes	Aid to nonmetal (2)

A cointegration test will be used to show whether each of the 15 sectors are cointegrated with the foreign aid for the support of the government's budget.

Table 6:
Bivariate Johansen Cointegration test results relating Foreign Aid for Budgetary support and the 15 Industrial Sectors

	Cointegration
Stone Cutting	No
Food & Beverages	Yes
Tobacco	No
Textile	No
Wear Apparel	No
Leather	No
Wood	No
Paper	No
Chemical	No
Rubber & Plastics	No
Non-metal	No

	Cointegration
Metal	No
Machinery & Equip.	No
Transportation	Yes
Furniture	No

Corresponding Granger Causality Test results are presented in the following table:

Table 7
Results of Granger causality tests

		Cointegration	Causality (lag)
Food & Beverages	Foreign Aid for Budgetary support	Yes	Aid to food (4)
Transportation	Foreign Aid for Budgetary support	Yes	Aid to Transportation (3)

To find the sign of the relationship we will use the FMOLS. Results are given in the following table:

Table 8:
Results of Fully Modified OLS (FMOLS) regression

Dependent Variable	Independent Variable	P-value	Alpha		Coefficient
STONE	AIDDEV	0.0063	0.05	Significant	-0.107715
FOOD&BEV	AIDDEV	0.0162	0.05	Significant	-0.657658

Dependent Variable	Independent Variable	P-value	Alpha		Coefficient
CHEMICAL	AIDDEV	0.0118	0.05	Significant	-0.106618
NONMETAL	AIDDEV	0.0213	0.05	Significant	-0.417828
FOOD&BEV	AIDBUD	0.0103	0.05	Significant	0.146725
TRANSPORTATION	AIDBUD	0.0694	0.10	Significant	0.002007

Discussion

When looking closely at the data of foreign aid with reference to Table 1 in the Appendix, it is clear that a larger portion of foreign aid is financing the PA's budget is directed to current spending. We also notice that the percentage of foreign aid that is directed to both these channels is not consistent, i.e. it fluctuates from year to year.

To show the effect of foreign aid on the industrial sector, we used the time series analysis. As a result, we found that there are four industries that are affected by foreign aid for development. They are the stone cutting industry, food and beverages industry, chemical industry, and nonmetal industries. The stone cutting had a lag 2, thus the effect of the foreign aid for development goes into effect after two years. Meanwhile the effect of the foreign aid for development goes into effect after 3 years for the nonmetal industries. The foreign aid for development affects the food and beverage industry after a year. The interesting finding was that foreign aid for development had a negative effect on all these four industries.

Applying the same time series analysis to the foreign aid for supporting the PA's budget, which is directed to finance its current expenditure account, was with a positive effect on two industrial sectors, namely, food and beverage industry and the transportation industry. However, the effect on the transportation industry was very little with 0.002, and with 0.147 on food and beverage industry. Nonetheless, a lag of 3 means that it takes three years for a change in foreign aid for supporting the budget to trigger an increase in the production level of the food and beverages industry. Thus a one unit increase in the aid for supporting the PA's budget will result in a 0.147 unit increase in the production levels of the food and beverages industry after four years.

Conclusion:

Our time series analysis clearly indicated that the food and beverage industry was the only industry that was benefiting from foreign aid. On the contrary, when considering the stone cutting industry, chemical industry, and non-metal industry, there is an inverse relationship between these industries and foreign aid for development. What is really happening is that foreign aid for development is declining. The value added for the stone cutting, food and beverages, chemical, and non-metal industries were increasing from 1996 to 2014. This was the reason for the negative relationship.So the question is why only these industries? One reason for that is that these industries were free from competition with what is "Made in China".We notice that most of these industries are dependent on the West Bank and Gaza Strip unique raw material. The fact that these industries were able to survive, and an increase in their value is added as a result in the increase in demand both in local and foreign markets. There is an increase at the same time in foreign aid for supporting the PA's current account.

It is very unfortunate to assert that given the current situation of the Palestinian industries -the un-competitiveness of the sector- it will be hard to develop a strong economy that have the capability to transform into a hi-tech economy. The Palestinian manufacturing industries faces the threat of extinction due to the fierce foreign competition. As the rise in the GDP is not associated with the rise in the contribution of the industrial sector to the GDP. The Palestinian economy will not be able to survive. The rise in the GDP is associated with a rise in the demand

for imported goods from Israel, Turkey, and the rest of the world. Thus foreign aid money is financing the increase in demand for foreign products. Since Israel is the major trade partner for the PA, a sizable portion of foreign aid money ends up in the Israeli economy.

In conclusion, is foreign aid assisting in achieving sustainability in the different industrial sectors of Palestine? Clearly it is not as it is expected. In order for foreign aid to achieve sustainability in the industrial sectors, it must be consistent and directed to development projects, and the donor countries should be more consistent and systematic in meeting their obligations. Foreign aid should not be used as a political tool to compel PA to behave in a certain manner, which is clearly demonstrated in the fluctuations in the amount of foreign aid from one year to another.

Taking a closer look at the PA's budget, its development expenditures that is financed from the treasury –this account is found in the Total Expenditures and Net Leading account- is experiencing a deficit. In 2014, the deficit reached to 40.1 million USD (Revenues, expenditures and financing sources of the PNA fiscal operations (cash basis)). This will further contribute to the already existing PA budget deficit. Nonetheless, the PA should not use all its available resources to fund shortages in its current expenditure accounts. A considerable portion of the PA's budget should be directed and channeled to finance development projects in order to promote research, development and innovation. Thus foreign aid should be used to create an environment in which human creativity and entrepreneurship can flourish, i.e. developing both the private and public sectors by coming up with new ideas that contribute to the efficiency in the production process. Thus, the PA should not use most of foreign aid to finance short term government expenditures, but rather long term development projects. Investing in the industrial sector is considered a long term investment and a necessity for Palestine, hoping that this would generate future returns for the Palestinian economy.

Did twenty-two years of foreign aid succeed in creating an independent Palestinian economy side by side to Israel? No, it didn't. The PA should decrease its current expenditures and increase its development projects expenditures. This can be done by decreasing its running costs such as rent buildings, travel costs. On the other hand, there should be an increase in taxes on inelastic and non-productive goods such as tobacco products. In addition, the PA must seek avenues to improve the performance of its operations and increase the level of productivity of its employees. All these policies will enable the PA to increase its resources and re-direct some of its current resources to aid the development of the industrial sector, and thus contribute positively to the economic growth of the Palestinian economy.

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Appendix I.

Table 1:
Foreign Aid for the Years 1996 – 2014 (Values in millions of US dollars)

Year	Foreign Aid for Development (USD)	Foreign Aid for PA's Current Expenditure (USD)	Total Foreign Aid (USD)	Foreign Aid for Development (%)	Foreign Aid for PA's current Expenditure (%)
1996	242.3	49.2	291.5	83.12178	16.87822
1997	262.3	5.8	268.1	97.83663	2.163372
1998	235.8	0.5	236.3	99.7884	0.211595
1999	239.4	5.6	245.0	97.71429	2.285714
2000	456.0	54.0	510.0	89.41176	10.58824
2001	318.0	531.0	849.0	37.45583	62.54417
2002	229.0	468.0	697.0	32.85509	67.14491
2003	359.0	261.0	620.0	57.90323	42.09677
2004	0	353.0	353.0	0	100
2005	287.0	349.0	636.0	45.12579	54.87421
2006	281.0	738.0	1019.0	27.57605	72.42395
2007	310.0	1012.0	1322.0	23.44932	76.55068
2008	215.0	1763.1	1978.1	10.86902	89.13098
2009	46.8	1355.0	1401.8	3.338565	96.66144
2010	78.8	1131.5	1210.3	6.510782	93.48922
2011	169.0	814.3	983.3	17.18702	82.81298
2012	155.0	777.1	932.1	16.62912	83.37088
2013	106.8	1251.2	1358.0	7.864507	92.13549
2014	201.0	1029.4	1230.4	16.33615	83.66385

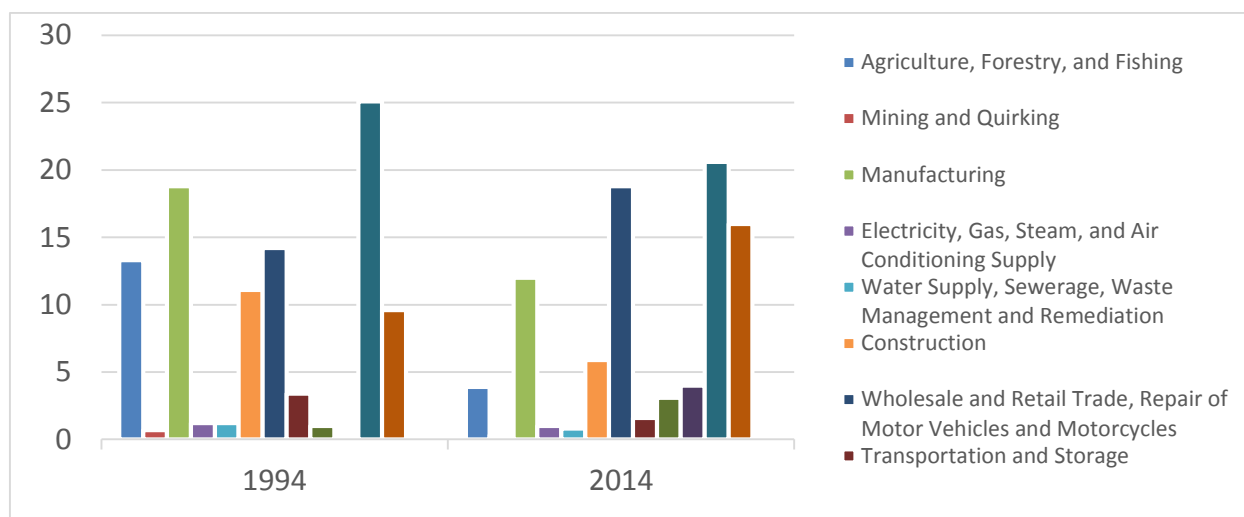Source: Palestine Monetary Authority (2015). Website: www.pma.gov.ps.

Appendix II.

Table 2:
Percentages of Value Added by Economic Activities for the Palestinian Economy for Years 1994 and 2014

Economic Activity	1994	2014
Agriculture, Forestry, and Fishing	13.3	3.9
Mining and Quarrying	0.7	0.3
Manufacturing	18.8	12
Electricity, Gas, Steam, and Air Conditioning Supply	1.2	1
Water Supply, Sewerage, Waste Management and Remediation	1.2	0.8

Economic Activity	1994	2014
Construction	11.1	5.9
Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles	14.2	18.8
Transportation and Storage	3.4	1.6
Financial and Insurance Activities	1	3.1
Information and Communication	0.1	4
Services	25.1	20.6
Public Administration and defense	9.6	16
Household with Employed Persons	0.2	0.1

Source: Palestinian Central Bureau of Statistics (2015). Website: www.pcbs.gov.ps

Percentages of Value Added by Economic Activities for the Palestinian Economy for Years 1994 and 2014.
Source: Data taken from table