

Factors of economic growth in Palestine: an empirical Analysis during the period of (1994-2013)

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Kew Words

Economic Growth, Domestic Working Labour Force, Gross Domestic Capital Formation, Domestic Exports and Imports

Abstract

This study aimed to analyze the impact of the size of domestic working labour force, real gross domestic capital formation, real domestic exports and imports of goods and services, and political instability on real gross domestic product(RGDP) in Palestine during the period of 1994 -2013. To examine the empirical relationship between these explanatory variables and real (GDP) growth the study adopted a standardized Cobb- Douglas production function by using the annual official data of the Palestinian Central Bureau of Statistics (PCBS), and applying the Ordinary least Square method (OLS) and Second Order Auto Correlation Techniques.

The empirical results of the model applied indicated that there is a positive relationship between the size of domestic working labour force, real gross domestic capital formation, real domestic exports and real gross domestic product(RGDP), and a negative relationship between real domestic imports of goods and services, and political instability and the real growth of (GDP). The study suggested several recommendations that can boost the level of growth, among them the most important one, is the urgent need for more investment in the economy as it leads to more formation of domestic capital which can count more in terms of economic growth in many ways.

1. Introduction

The economic growth issue has been the main focus of the world countries for more than half a century. Economic growth is the basis for achieving economic, social, and political development. Therefore, policies always try to accelerate the growth rate of national incomes, easing unemployment rates, fight poverty, and aim to achieve more equality in the distribution of wealth, find opportunities to raise literacy and education standard, support savings and investment, apply technological application and innovation, research and development, and conduct various programmes of structural change in order to maximize the gain from the international trade. All these policies have been maintained by the countries worldwide in order to reach a high level of economic growth. The present study which refers to the Palestinian case in which the case was always unique and complex due to the Israeli occupation of Palestine and the denial of the Palestinian economy in achieving growth through the utilization of the available economic and social recourses. The Palestinian GDP has witnessed a growth rate after the Palestinian National Authority took rule over the Palestinian territories, but such growth rate was neither adequate enough nor sustainable to achieve the demanded level of economic development. Therefore, the present study came to life in order to analyze the factors which are believed to have the most effective impact on economic growth in the Palestinian economy, namely labour, capital, exports, and imports.

1.1 The Problem of the Study

The economic growth in Palestine has been one of the priorities of the Palestinian National Authority since its establishment in 1994. Since then the Palestinians took rule of their economic issues, given the inheritance economy from the Israeli rules, Palestinians are facing tremendous pressure to get the economy functioning in a normal manner. Economic growth has

received the attention of the society as a whole; there were a number of studies which tried to address the issue of economic growth and its effect on economic development. Such studies were conducted by researchers and scholars both at individual and institutional levels, therefore, the problem of this study can be considered one of them in which it seeks to analyze the main factors that are causing economic growth during the period of 1994 -2013.

1.2 Objectives of the Study

The present study seeks to achieve the following objectives;

- a. To review the available literature with reference to economic growth in Palestine.
- b. To establish a solid theoretical background of the ongoing debate about the economic growth.
- c. To testify econometrically the main factors that are responsible for economic growth in Palestine, and to determine their elasticities with regard to the growth of real gross domestic product.
- d. To suggest the necessary recommendations which might help in boosting the growth level of the RGDP in Palestine?

1.3 Hypothesis of the Study

The main hypothesis of the study can be stated as follows;

There is a positive statistical relationship between the growth level of the real gross domestic product (RGDP) and the working labour force, gross domestic capital formation (GDCF), and exports (EXP), and a negative relationship with imports (IMP).

1.4 Methodology of the Study

The present study will follow the methodology which was followed by most of the studies that have analyzed the economic growth determinants. In the first place a wide range of library survey is conducted to review the economic literature related to economic growth and to draw a solid theoretical framework to the study. While in the second place, an econometric model is proposed to testify the variables that represent factors of growth in Palestine; this model will depend on a three multi-regression equations in which the effect of the variables of the study can be assessed by using the official data of the Palestinian Central Bureau of Statistics (PCBS).

1.5 Limitations of the Study

The present study will be limited to analyze the main factors of growth in Palestine during the time period of 1994- 2013.

2. Theoretical Framework of the Factors of Economic Growth

2.1 Theoretical Background

The theoretical base of economic growth was presented by the neoclassical model of Solow (1956). The model had various assumptions to depend on such as: constant returns to scale, diminishing marginal productivity of capital, exogenously determined technical progress and substitutability between capital and labour. However, the Slow's model highlights the savings or investment ratio as important determinant of short-run economic growth, and technological progress is the important determinant in the long-run. The model also predicts convergence in growth rates on the basis that poor economies will grow faster compared to rich ones. Technological progress as an engine of long-run economic growth has been adopted by the recent studies, which accept constant and increasing returns to capital. These studies presented the endogenous growth theories, which propose the introduction of new accumulation factors, such as knowledge, innovation, and other technological applications that will induce economic growth .In this regard Romer's (1986) and Lucas' (1988) highlighted three

significant sources of growth, namely new knowledge, innovation and public infrastructure . In contrast to the neoclassic counterpart (Barro, 1990) insist that, policies are deemed to play a substantial role in advancing growth on a long-run basis.

Another theoretical base is the growth theory of cumulative causation developed by Myrdal (1957) and Kaldor (1970). The essential argument of this theory is the of 'cumulative causation' in which initial conditions determine economic growth of countries in a self-sustained and incremental way. As a result, the emergence of economic inequalities among economies is the most possible outcome.

From a more macro perspective, other theoretical approached have emphasised the significant role non-economic factors (at least in the conventional sense) play on economic performance. Thus, institutional economics has underlined the substantial role of institutions (Matthews, 1986; North, 1990; Jutting, 2003), economic sociology stressed the importance of socio-cultural factors (Granovetter, 1985; Knack and Keefer, 1997), political science focused its explanation on political determinants (Lipset, 1959; Brunetti, 1997) and others shed light on role played by geography (Gallup et al., 1999) and demography (Brander and Dowrick, 1994; Kalemli-Ozcan, 2002).

2.2. Factors of Economic Growth

The economic growth factors have gained the attention of researchers and scholar's worldwide, a wide range of studies has investigated the factors underlying economic growth. Using differing conceptual and methodological viewpoints, these studies have placed emphasis on a different set of explanatory parameters and offered various insights to the sources of economic growth. These factors can be explained as follows:

1. Investment is the most fundamental determinant of economic growth identified by both neoclassical and endogenous growth models. However, in the neoclassical model investment has impact on the transitional period, while the endogenous growth models argue for more permanent effects. The importance attached to investment by these theories has led to an enormous amount of empirical studies that examine the relationship between investment and economic growth (see for instance, Kormendi and Meguire, 1985; De Long and Summers, 1991; Levine and Renelt, 1992; Mankiw, 1992; Auerbach et al, 1994; Barro and Sala-i- Martin, 1995; Sala-i-Martin, 1997; Easterly, 1997; Podrecca and Carmeci, 2001). Human capital is the main source of growth in several endogenous growth models as well as one of the key extensions of the neoclassical growth model. Since the term 'human capital' refers principally to workers' acquisition of skills and know-how through education and training, the majority of studies have measured the quality of human capital using proxies related to education. A large number of studies has found evidence which suggests that educated population is key determinant of economic growth (see Barro, 1991; Mankiw et al, 1992; Barro and Sala-i-Marin, 1995; Brunetti et al, 1998).
2. Innovation and R&D activities can play a major role in economic progress, increasing productivity and growth. This is due to the increasing use of technology that enables introduction of new and superior products and processes. This role has been stressed by various endogenous growth models, and the strong relation between innovation/R&D and economic growth has been empirically affirmed by many studies (see, Lichtenberg, 1992; Ulku, 2004).
3. Economic policies and macroeconomic conditions have also been considered as determinants of economic performance (see Kormendi and Meguire, 1985; Barro, 1991, 1997; Barro and Sala-i-Martin, 1995). Economic policies can influence several aspects of an economy through investment in human capital and infrastructure,

improvement of political and legal institutions and so on (although there is disagreement in terms of which policies are more conducive to growth). Macroeconomic conditions are regarded as necessary but not sufficient conditions for economic growth (Fischer, 1993). In general, a stable macroeconomic environment may favour growth, especially, through reduction of uncertainty, where as macroeconomic instability may have a negative impact on growth through its effects on productivity and investment (e.g higher risk). Several macroeconomic factors with impact on growth have been identified in the literature, but considerable attention has been placed on inflation, fiscal policy, budget deficits and tax burdens.

4. Openness to trade has been used extensively in the economic growth literature as a major determinant of growth performance. There are sound theoretical reasons for believing that there is a strong and positive link between openness and growth. Openness affects economic growth through several channels such as exploitation of comparative advantage, technology transfer and diffusion of knowledge, increasing scale economies and exposure to competition. There is a substantial and growing empirical literature investigating the relationship between openness and growth. A large part of the literature has found that economies that are more open to trade and capital flows have higher GDP per capita and grow faster (Dollar, 1992, Edwards, 1998, Dollar and Kraay, 2000).
5. Foreign Direct Investment (FDI) has recently played a crucial role of internationalizing economic activity and it is a primary source of technology transfer and economic growth. This major role is stressed in several models of endogenous growth theory. (Lensink and Morrissey, 2006)
6. Institutional Framework, the important role institutions play in shaping economic performance has been acknowledged long time ago, it is not until recently that such factors have been examined empirically in a more consistent way (see Knack and Keefer, 1995; Hall and Jones, 1999;). Rodrik (2000) highlighted five key institutions (property rights, regulatory institutions, institutions for macroeconomic stabilization, institutions for social insurance and institutions of conflict management), which not only exert direct influence on economic growth, but also affect other determinants of growth such as the physical and human capital, investment, technical changes and the economic growth processes.
7. Political Factors: The relation between political factors and economic growth has come to the fore by which the researchers proliferated made clear that the political environment plays an important role in economic growth (Kormendi and Meguire, 1985; Lensink et al, 1999; Lensink, 2001). At the most basic form, political instability would increase uncertainty, discourage investment and eventually hinder economic growth. Brunetti (1997) distinguishes five categories of relevant political variables: democracy, government stability, political violence, political volatility and subjective perception of politics.
8. Social-Cultural Factors: Recently there has been a growing interest in how various social-cultural factors may affect growth (see Zak and Knack, 2001; Barro and McCleary, 2003). Trust is an important variable that belongs to this category. Several other social-cultural factors have been examined in the literature, such as ethnic composition and fragmentation, language, religion, beliefs, attitudes and social/ethnic conflicts, but their relation to economic growth seems to be indirect and unclear. For instance cultural diversity may have a negative impact on growth due to emergence

of social uncertainty or even of social conflicts, or a positive effect since it may give rise to a pluralistic environment where cooperation can flourish.

9. Demographic Factors: The relationship between demographic trends and economic growth has attracted a lot of interest particularly over the last years, yet many demographic aspects remain today unexplored. Of those examined, population growth, population density, migration and age distribution, seem to play the major role in economic growth (Barro, 1997; Bloom and Williamson, 1998; Kelley and Schimdt, 1995). High population growth, for example, could have a negative impact on economic growth influencing the dependency ratio, investment and saving behaviour and quality of human capital. The composition of the population has also important implications for growth. A large working-age population is deemed to be conducive to growth, whereas population with many young and elderly dependents is seen as impediment. Population density, in turn, may be positively linked with economic growth as a result of increased specialization, knowledge diffusion and so on. Migration would affect growth potential of both the sending and receiving countries. Findings again are not conclusive since there have been studies reporting no (strong) correlation between economic growth and demographic trends (e.g. Pritchett, 2001).

3. Review of the Selected Literature

Economic growth sources and determinants had been the focus of academic and institutional researchers world wide, in this part of the ongoing research various close studies were selected, these studies can be classified into three categories; studies related to the Palestinian economy, studies related to the determinants of economic growth in the neighbour countries, and studies related to the economic growth on the international level. Among the recent studies related to the Palestinian economy that of (Hamdan, 2013) in which he tried to study the employment effect on economic growth in Palestine, to achieve that he measured the extent to which the effect of employment on the economic growth during the period (1995- 2010) using Solw model and based on the utilization of Cop- Douglas production function, in order to determine the contribution of labour to economic growth. The results showed that the elasticity of each of Labour and Capital was (0.63, and 0.53) respectively, and both can explain up to %78.8 of the variation in the average growth in Gross Domestic Product (GDP), indicating that the technological development's contribution in economic growth (Macro- level productivity) reached (%21.2).

The study recommends that emphasis must be made to investment in human capital, such as the investment in education, health, research, and development, for its important and prominent role in increasing economic growth. While (Abu- Eideh, 2013) in his study aimed to analyze the performance of Palestinian exports and its impact on economic growth and to identify the relationship between exports and economic growth, he has also tried to determine the relationship between the structural development of the manufacturer industrial sector and exports growth on one hand, and economic growth on the other hand. The empirical results of the study model revealed a positive impact of Palestinian exports on the growth of (GDP).The results also showed a significant and clear effect of the structural change of the manufacturer industrial sector on the growth of exports. As far as the growth of labour force of the manufacturer industrial sector is concerned, the results were quite unclear, the testified data showed a positive effect of the growth of labour force in case of both exports and manufacturer industrial growth, and a negative effect in case of (GDP) growth. The main recommendations of the research were; an export- led growth policy should be adopted in order to maximize the economic benefit of the exports by establishing a productive manufacturing industrial base that

is capable of entering the foreign markets. More policy focus must be followed in order to establish a solid and productive manufacturing sector and find solutions to the problems that stand in the way of developing this sector. Finally, the labour market should be restructured by development of manpower and training programmes in order to increase the productivity and efficiency of the labour force in the manufacturing sector.

Another recent contribution by (Hamdan, 2013) in which he aimed to examine and analyze the sources of economic growth in Palestine during the period (1995-2010). The researcher model based on Cobb Douglas production function, in order to determine the contribution of production factors in economic growth. The study found a number of results, including: flexibility of each of the elements of labour and capital by (0.63, 0.53), respectively, which they contribute to a rate of (% 78.8) of the changes in the rate of GDP growth. This indicated that the contribution of other factors to productivity growth was (% 21.2), and the ratio of capital contribution was (1.64) in the growth of the real GDP during the period (1995-2010). Also, labour factor contribution was (0.64) in the growth of the real GDP during the same period, while the overall productivity growth was (-1.02) during the same period.

Another study by the (IMF, 2011), aimed to study the macroeconomic and fiscal framework for the west bank and Gaza, according to this study the sources of economic growth in Palestine is the capital and labour force and the productivity of the factors of production. While (Makhole, 2001) in his contribution tried to define the relationship between the economic growth and employment in which the elasticity of employment with regard to total product was around 0.80%. In another study by (Dawoodi & Almnn, 2001), which aimed to analyse the relationship between the demographic factors and the economic growth of the Palestinian economy in the long run during the period of (1970-1999), the results of the study show that the share of material capital in the growth of GDP as 4.2% and that of labour force 1.3% and the growth of total productivity of the factors of production 0.4% with regard to the time period of 1970-1990. The picture was quite different during the period of 1990-1999 where capital share was 3.3%, and labour share was 3.4%, and the total productivity of the factors of production was 4.2%.

On the regional level (AL-Raimony, 2011) has studied the determinants of economic growth in Jordan. In his study he aimed to analyse the relationship between elaticities of labour, real capital, real export and real import and economic development. The study adopted a conventional model based on the aggregate production function with respect to labour, capital, exports, import and dummy explanatory variables. The real (GDP) growth response over the period was similar to most other developing countries. However the study results showed that there is a positive relationship between real capital growth, and real export growth and real GDP growth, while there is a negative relationship between labour size growth and real GDP growth, and there is a negative relationship between real import growth and real GDP growth. The main recommendations of the study were, Jordan has to adopt a comprehensive training program to improve labour productivity. Moreover, Jordan has to pay more attention to the export sector which plays a significant role in the improvement of the balance of trade as well as the balance of payments and subsequently enables the country to import the essential capital goods which are considered the formative power of economic development in the country and to raise labour productivity.

While in Egypt, (Anton & lqbal, 2005) studied constraints and determinants of economic growth in which they revealed the accelerated transition of the Egyptians economy from a public sector dominated economy to a private sector led and market oriented economy after the collapse of oil prices in the mid-1980s. Some aspects of the economy, such as trade policy, have been substantially transformed since then whereas other aspects, such as public control of the

financial sector, have experienced less change in substance. The study examined some determinants of growth in Egypt since the mid-1980s using insights from both standard econometric techniques and a diagnostic approach proposed by. The outcomes of the study state that trends in government consumption, credit to the private sector and the average growth rate of OECD countries have been significant determinants of growth in Egypt in the past. It also presents evidence that suggests inefficiency of financial intermediation is a significant constraint on growth.

On the international level, the study by (Martin,1997) which determines various variables that have strong effect on economic growth such as political factors, contains the quality of government, the strength of law and protection of property rights, and the factors related to investment level, the concentration of exports on raw materials, the level of openness in the economy, education standards, and the stability in the macro economic variables such as inflation, exchange rate and public budget deficit. Another exclusive study by (Barro, 1996), tried to study the determinants of economic growth from 1960 to 1990 in 100 countries depending on a cross country empirical model in which the empirical findings strongly provides the necessary information to isolate determinants of economic growth. With respect to government policies, the evidence indicates that the growth rate of real per capita GDP is enhanced by better maintenance of the rule of law, smaller government consumption, and lower inflation. Increases in political rights initially increase growth but tend to retard growth once a moderate level of democracy has been attained. Growth is also stimulated by greater starting levels of life expectancy and of male secondary and higher schooling, by lower fertility rates, and by improvements in the terms of trade. For given values of these variables, growth is higher if a country begins with a lower starting level of real per capita GDP. In contrast to the small effect of democracy on growth, there is a strong positive influence of the standard of living on a country's propensity to experience democracy.

Bosworth& Collins (1998) studied the sources of economic growth in 88 countries during the period (1960-1996), the results of the study show that the miracle which had been occurred in the countries of East Asia was because of the increasing in savings and capital accumulation and not to the technological development in the short run, but technological developments were the source of economic growth in the long run.

In another international study, (Petrakos , at, al , 2007) presented the experts' view about the determinants of economic growth, in their paper they draw a questionnaire survey to explore experts' views on the factors underlying economic dynamism. The results of the survey were; first, the survey identified a number of important determinants of economic dynamism at the global scale. These determinants are consistent with the relevant mainstream literature, but also with its most recent developments, highlighting the increasing influence of political and institutional factors.

Second, it was found that the determinants of economic dynamism do not have the same influence in advanced and less advanced countries (or regions). There are clear indications that the priorities in terms of the factors influencing economic dynamism are quite different between developed and developing countries. For the first ones, the respondents adopt parameters with more economic, hi-tech and specialized features, whereas for the second ones, matters related with the socio-political framework, the level of foreign direct investments and the formal institutions seem to prevail. It is worth noticing that the high degree of openness, the capacity for adjustment and the quality of infrastructure are the common preconditions for economic dynamism shared by both developed and developing countries. In general, the results of this part of the questionnaire raise a question for the efficiency of a number of existing development policies.

Third, respondents tend to select overall balanced combinations of opposite characteristics related to theoretical or policy dilemmas in their effort to promote economic dynamism. This tendency was verified in the dilemmas of discretionary vs. persistent policies, endogenous qualities vs. exogenous forces, competition vs. cooperation, flexibility vs. stability, informal arrangements vs. formal institutions, sectoral diversity vs. specialization, public sector decentralization vs. centralization and metropolitan dominance vs. polycentric urban system. At the remaining theoretical dilemmas, the distribution of the responses was clearly skewed in favor of market forces instead of public policies, open economy instead of closed economy and finally social cohesion instead of social inequality. The prevailing mix of opposite characteristics that is considered to best promote economic dynamism indicates that a number of perceived relations are valid only within a limited range of values. This raises a question for the validity of linear models, in which relations and impacts can be either positive or negative.

Fourth, satisfaction with different theoretical paradigms varies among respondents according to their occupation (academia, private sector, public sector). The degree of differentiation is quite high, indicating that there is a different understanding of the main functions of the economy among the three groups. Theoretical paradigms highly popular in the academia appear in the last places of preference for people working in the private sector.

4. The Study Model

In order to assess the effect of Labour, Capital, exports and imports on real gross domestic product (RGDP) growth, a conventional econometric model based on cobb- Douglas production function is adopted in which those variables enter as inputs in gross domestic product .

$$Y_t = AL^{a1} K^{a2} X^{a3} M^{a4} e^u$$

This model had been employed because it is deemed to be the most appropriate tool for the explanatory variables effect in this research. The econometric model which is derived from the above function avoid the lag variable in exports and imports variables in particular because they are not significantly different from zero. By doing the total differentiation in both sides of the function with respect to time and by applying a log transformation in order to linearize the proceeded function in parameters. Depending on Cobb- Douglas production function, this research seeks to examine the following equations;

$$2. \text{LN RGDP}_t = \text{LN}A_0 + \beta_1 \text{LNW L}_t + \beta_2 \text{LN GDCE}_t + \beta_3 \text{LN EXP}_t + U_t \dots\dots\dots(1.2)$$

$$3. \text{LN RGDP}_t = \beta_0 + \beta_1 \text{LNW}_t + \beta_2 \text{LN GDCE}_t + \beta_3 \text{LN EXP}_t + \beta_4 \text{LN IMP}_t + U_t, \dots \quad (1.3)$$

Where:

RGDP: Real Gross Domestic Product

WL: Working Labour Force in The Domestic Economy

GDCE: Gross Domestic Capital Formation at Fixed Price

EXP: Exports of Goods and Services at Fixed Price

IMP: Imports of Goods and Services at Fixed Price

Dum: during the political and economical period is one ,otherwise is zero

Dum. during
as: Constant

The expected values of the coefficients are :

$\beta_1 \geq 0$, $\beta_2 \geq 0$, $\beta_3 \geq 0$ and $\beta_4 \leq 0$

The values of the coefficients of the independent variable measured the degree of the Responsiveness (Elasticities) of RGDP, as a result of the change of the explanatory variables namely a_1, a_2, a_3 and a_4 which represent the labour, capital, exports and imports elasticities respectively. To avoid the autocorrelation results from exports in RGDP, the researcher avoided

this by isolating the export effect, by deducting the domestic exports from the RGDP, then calculating RGDP will be as follows:

$$\text{RGDP} = \text{RGDP} - \text{Real domestic exports.}$$

5. The Empirical Results

The following table shows the empirical results of the (OLS) model for real (GDP) against the size of the working labour force in the domestic economy and the real gross domestic capital formation (GDCF).

Equation No	Variables	β	T	F	R ²	\bar{R}^2	DW
1.1	Constant	2.13	2.97** (0.009)	56.66** (0.000)	0.87	0.85	1.17
	LNWL	0.6	0.01** (0.000)				
	LNGDCF	0.33	2.92** (0.01)				

Table (1): Estimated Statistical Results of the Equation 1.1

* Significant at 5% ** Significant at 1% Sig Values are in Parentheses

As shown in table (1) the empirical results of the equation(1.1) reveal the successful performance of the model, it has yields both correct signs of the variables included and statistical significance at 1%, the values of DW shows that there is no existence of autocorrelation as the value of the DW index lies in the conclusive region. The estimated results of the equation (1.1) indicate that both working labour force (WL) and gross capital formation (GDCF) have a positive impact on the real gross domestic product (RGDP). As shown an increase of 1% in the working labour force will cause a 0.60% increase in the real gross domestic product, and the (t) value of this variable (WL) shows statistical significant at 1%. These coefficient of the (GDCF) also means an increase of this variable by 1% leads to an increase of the real gross domestic product (RGDP) by 0.33%, the value of the (t) test regarding (GDCF) was 2.92 which holds statistical significant at 1% level.

As far as the strength of the model is concerned in equation 1.1, (F) value which is (56.66) is considered high enough to register a statistical significance at 1%, while the R² reveals the capability of the included variables in analysing the variance in the (RGDP) which was marked the level of 87%.

In equation 1.2 the real exports of goods and services of the Palestine was introduced to the model as the third factor of economic growth, table (2) presents the estimated results of this equation as below.

Equation No	Variables	β	T	F	R ²	\bar{R}^2	DW
1. 2	Constant	3.18	5.98** (0.000)	111.5** (0.000)	0.95	0.94	1.52
	LNWL	0.35	5.06** (0.000)				
	LNGDCF	0.057	0.61 (0.55)				
	LN EXP	0.40	5.73** (0.000)				

Table (2): Estimated Statistical Results of the Equation 1.2

* Significant at 5% ** Significant at 1% Sig Values are in Parentheses

The values of the β show a statistical significance at 5% and an intact sign of the coefficients, but the impact of both (WL) and (GDCF) on the (RGDP) have shown a decline. The DW value lies in the conclusive region as mark (1.52) which means the autocorrelation does not exist. The estimated results of the equation (1.2) indicate that a rise of 1% in the size of the working labour force (WL) will lead to a rise of 0.35% in the real (GDP) growth, and a rise of real (GDCF) will lead to only 0.057%, while exports of goods and services will result a 0.40% rise in the real (GDP) growth. As far as the (t) test is concerned the variables included in the equation show a statistical significant at 1% to the constant (5.98), (WL) (5.06), and exports (5.73), while the value of the (t) test does not reach the statistical significance with regard to real (GDCF), such result can be caused due to the decreasing share of the production sectors in the real (GDP). The estimated results indicate a good performance of the model in term of (F) value and (R^2), as the former reached a high value (111.5) which will add to the accuracy of the model, while the latter was (0.95) which means the total variation that can be expressed by the dependant variables which are included in the equation 1.2 can reached to a high level of 95%.

In the equation 1.3 of the model, the fourth factor of growth is introduced which represented by the imports of goods and services by the Palestinian economy, the estimated results of this equation can be seen in table (3) as follows:

Equation No	Variables	β	T	F	R^2	\bar{R}^2	DW
1. 3	Constant	3.07	4.92** (0.000)	79.18** (0.000)	0.95	0.94	2.03
	LNWL	0.39	4.58** (0.000)				
	LNGDCF	0.068	0.68 (0.5)				
	LN EXP	0.38	4.4** (0.001)				
	LN IMP	-0.026	0.73 (0.71)				

Table (3): Estimated Statistical Results of the Equation 1.3

* Significant at 5% ** Significant at 1% Sig Values are in Parentheses

The empirical results of the equation show a correct signs of the factors of economic growth in Palestine, where the sign of (WL), real (GDCF), and real (EXP) have a positive sign, and that of real (IMP) is a negative one. Such results, in the first place, have come in line with the growth theories and with many studies that have been reviewed in this research paper , while, in the second place, the impact of the dependent variables on the growth of the real (GDP) have been estimated by the coefficients at 5% significance. In more details a rise of 1% in the size of the (WL) will lead to an increase in the growth level by 0.39%, and in the same manner real (GDCF) will lead to only 0.042% increase the growth rate, real domestic (EXP) will effect the growth level by 0.38% , and real imports will affect growth level negatively by - 0.026%. Table (3) also shows the value of the (t) test in which it proved a statistical significance at 1% level in case of the (constant), (WL),and (GDCF), while in case of (GDCF) and (IMP), the value of the (t) test does not show the demanded statistical significance .

The results also reveal a good performance of the model in term of both the (F) value and the (R^2), The calculated value of (F) is 79.18 which indicate the strength of the model and add more confident in the estimated results, while (R^2) has reached 0.95 which means the included factors of the model can explain up to 95% of the variation in the real growth level of the gross domestic product in Palestine. But the value of (DW= 2.03) in turn was a little high to lie in the

inclusive region which means that we cannot conclude whether auto correlation does or does not exist.

Ultimately in equation (1.4) the dummy variable is included in the model to capture the effects of political and economical instability which have a serious impact on growth in case of Palestine because of the ongoing conflict between Palestine and Israel. The results of the model can be seen in its full picture as indicated in table (4).

Equation No	Variables	β	T	F	R ²	\bar{R}^2	DW
1.4	Constant	3.22	4.98** (0.000)	63.02** (0.000)	0.96	0.94	1.63
	LNLW	0.44	3.35** (0.005)				
	LNGDCF	0.042	0.40 (0.69)				
	LNEXP	0.38	4.34** (0.001)				
	LNIMP	-0.054	-0.48 (0.63)				
	DUM	-0.053	0.93 (0.36)				

Table (4): Estimated Statistical Results of The Equation 1.4

* Significant at 5% ** Significant at 1% Sig Values are in Parentheses

The estimated results show an intact signs of the variables in which the sign of (WL), (GDCF), and (EXP) was positive, and that of (IMP) and (DUM) variables was a negative one. After the total inclusion of the concerned factors of growth the picture is quite a clear one, the estimated effect of the size of the domestic working labour force on the growth level of the real (GDP) is 0.44%, and that of (GDCF) is 0.042%, and that of (EXP) is 0.38%, while the effect of domestic imports is -0.054% and the effect of the political and economical instability is -0.053%. The estimated results also show a statistical significance in form of (t) test at 1% for the constant as well as for (WL) and for (EXP) as their (t) value was (4.98), (3.35), (4.34) simultaneously, while the statistical significance does not prove with regard to (GDCF), (IMP), and (DUM). As far as the whole model is concerned the (F) value has registered a high level of (63.02) which is clearly significant at 1%, the (R²) also reached a high level of 96% which means the included variables can determine as much as 95% of the growth level in the real (GDP), and (DW) value is (1.63) which means the model is intact and free from auto correlation as (DW) lies in the inclusive region of this index.

6. Conclusion and Recommendations

As this study aimed to analyse the factors of economic growth in Palestine namely, the size of domestic working labour force, the real gross domestic capital formation, real domestic exports and imports of goods and services, and political and economical instability. As it is well known the growth level of the Palestinian economy was featured with instability over the years due to the unique political environment that prevails in the region. The sources of such growth have been empirically estimated in this study in which there was a positive relationship between the size of domestic working labour force (WL), real gross domestic capital formation (GDCF), real domestic exports (EXP) and real gross domestic product (GDP), while there is a negative relationship between real domestic imports (IMP) and political instability and real gross domestic product (GDP). Such results are similar to most other developing countries as shown in the literature part of this study.

In the light of the empirical results which have been reached the researcher suggests the following recommendations;

- (a) More attention should be made to raise the productivity of domestic labour force through the adoption of comprehensive training programmes in order to improve productivity of the labour force and maximize its positive impact on economic growth.
- (b) There is an urgent need to raise the level of investment in the economy as it leads to more formation of domestic capital which can count more in terms of economic growth in many ways. For this purpose economic policy must support domestic savings and invitation of foreign capital will be in favours of economic growth in this aspect.
- (c) Export sector needs more policy focus as it plays a significant role in economic growth through the improvement of both trade balance and balance of payments, and subsequently enables the economy to import essential capital goods which are considered the formative power of economic growth and to raise economic productivity.
- (d) Domestic imports should be directed in favour of the domestic economy to ease its natural negative effect on economic growth.
- (e) Political instability should be watched carefully in order to minimize its negative effect on the growth of the real domestic product.
- (f) Further studies appeared to be necessary in order to explain the impact of other important factors which affect the economic development in Palestine.

References

- Abu-Eider, Omar. Mahmoud, 2013. Palestinian Exports Performance and Its Impact on Economic Growth: An Econometric Study During The Period (1994 - 2011).*Alazhar University Journal , Humanities Series*, Vol 15 , No 1, pp 347-376, Gaza.
- AL-Raimony,Ahmad.Diab, 2011. The Determinants of Economic Growth in Jordan. *Abhath Al-Yarmouk, Humanities and Social Sciences Series*, Volume 27, Number 3,PP 2297-2305.
- Anton, Dobronogov & Farrukh, Iqbal , 2005. Economic Growth in Egypt: Constraints and Determinants. Middle East and North Africa ,*The World Bank , Office of the Chief Economist, Working Paper Series* No. 42, October.
- Auerbach A., Hassett K. & Oliner S, 1994. Reassessing the social returns to equipment Investment. *Quarterly Journal of Economics*, 109, 789-802.
- Barro, R. 1990. Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy* 98, S103-S125.
- Barro, R. 1991. Economic Growth in a Cross Section of Countries. *Quarterly Journal of Economics*, 106(2), 407-43.
- Barro, R. & McCleary, R. 2003. Religion and Economic Growth. *NBER Working Paper no. 9682*.
- Barro, R. & Sala, Martin X. 1995. Economic Growth. *New York, McGraw-Hill*.
- Barro, Robert J. 1996. Determinants of Economic Growth: A Cross Country Empirical Study *NATIONAL BUREAU OF ECONOMIC RESEARCH,(NBER) Working Paper 5698*,1050 Massachusetts Avenue Cambridge, MA 02138,August .
- Bloom, D. & Williamson J. 1998. Demographic Transitions and Economic Miracles in Emerging Asia. *World Bank Economic Review* 12, 419-56.
- Bosworth, B., & Collins, S.1998. Accounting for Economic Growth. *Washington, D.C.: Brookings Institute*.
- Brander, J. & Dowrick, S. 1994. The Role of Fertility and Population in Economic Growth: Empirical Results from Aggregate Cross-National Data. *Journal of Population Economics* 7, 1-25.
- Brunetti, A. Kisunko G.& Weder, B. 1998. Credibility of Rules and Economic Growth: Evidence from a Worldwide Survey of the Private Sector. *The World Bank Economic*

- Review 12(3):353-84.
- Brunetti, A. 1997. Political variables in cross-country growth analysis. *Journal of Economic Surveys*, 11, 2,163-190.
- Dawoodi & Almnn. 2001. Demographic Factors and the Economic Growth of the Palestinian Economy in the Long- run. *Roza , at el*, 2001, pp 125.
- Dollar, D. 1992. Outward-Oriented Developing Economies Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-1985.. *Economic Development and Cultural Change*, 40, 3, 523-44.
- Dollar, D. & Kraay, A. 2000. Trade, Growth and Poverty. *The World Bank Development Research Group*, Washington, (mimeo).
- Easterly, W. 2001.The elusive quest for growth: economists' adventures and misadventures in the topics. *Cambridge MA*: MIT Press.
- 19- Edwards, S. 1998. Openness, Productivity and Growth: What Do We Really Know?. *Economic Journal*,108, 383-398.
- Fisher, S. 1993. The Role of Macroeconomic Factors in Growth. *Journal of Monetary Economics*, 32, 485- 512.
- Gallup, J., Sachs, J. & Mellinger, A. 1999. Geography and Economic Development. *International Regional Science Review*. 22 (2), 179-232.
- Granovetter, M. 1985.Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), pp. 481-510.
- Hall, R. & Jones, C. 1998. Why do Some Countries Produce so Much More Output than Others. *The Quarterly Journal of Economics*, 114,. 1,. 83-116.
- Hamdan, Bader. Shhada. 2013. The Effect Employment on Economic Growth in Palestine.*Alazhar University Journal , Humanities Series*, Vol 15 , No 1, pp 23-52, Gaza.
- Hamdan, Bader . Shhada.2012. Analysis of Growth Sources in Palestinian Economy (1995 - 2010), Master Thesis, Administration & Economic College, Alazhar University, Gaza.
- IMF.2011.Macroeconomic and Fiscal Framework for the West Bank and Gaza.
- Jutting, J. 2003. Institutions and Development: A Critical Review. *OECD Development Center*, Working Paper 210.
- Kaldor, N. 1970. The Case for Regional Policies. *Scottish Journal of Political Economy*, 17, 337-348.
- Kalemlı-Ozcan, S. 2002. Does the Mortality Decline Promote Economic Growth?. *Journal of Economic Growth*, 7, pp. 411-439.
- Kelley, A. & Schmidt, R. 1995. Aggregate Population and Economic Growth Correlations: The Role of the Components of Demographic Change. *Demography*, 32, 543-55.
- Knack, S. & Keefer, P. 1995. Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures. *Economics and Politics* 7(3), 207-227.
- Knack, S. & Keefer, P. 1997. Does social capital have an economic impact? A cross-country investigation. *Quarterly Journal of Economics*, 112, 4,1252-88.
- Kormendi, R.& Meguire, P. 1985. Macroeconomic determinants of growth: cross-country Evidence. *Journal of Monetary Economics*,16, 4, 141-63.
- Lensink, R. 2001. Financial development, uncertainty and economic growth. *De Economist*, 149 (3), 299-312.
- Lensink, R., Bo H. & Sterken, E. 1999. Does Uncertainty Affect Economic Growth? An Empirical Analysis. *Weltwirtschaftliches Archiv*, 135.,379-396.
- Lensink, W. & Morrissey, O. 2006. Foreign Direct Investment: Flows, Volatility and the Impact on Growth. *Review of International Economics*, 14, 3, 478-493.
- Levine, R. &D.Renelt.1992. A Sensitivity Analysis of Cross-Country Growth Regressions. *American Economic Review* 82(4), 942-63.

- Lichtenberg, F. 1992. R&D Investment and International Productivity Differences. *NBER Working Paper*, No. 4161.
- Lipset, S. 1959. Some Social requisites of Democracy: Economic Development and . *Journal of Monetary Economics*, 22, 3- 42.
- Lucas, R. 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics*, 22, 3- 42.
- Makhlof, B . 2001. Economic Growth and Employment in West Bank and Gaza. *Arabic Journal of Economic Studies*, No 26.
- Mankiw, N., Romer, D. & Weil, D. 1992. A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics* 107, 2, 407-437.
- Martin, N. A. 1997. International Trader: More Trouble could be in the Cards for Hong Kong's Jittery Stock Market. *Barren's*, 77 (39), 8-9.
- Matthews, R. 1986. The economics of institutions and the sources of growth. *The Economic Journal*, 96,903-18.
- Myrdal, G. 1957. Economic theory and underdeveloped regions. *Hutchinson Publications*.
- North, D. 1990. Institutions, Institutional Change and Economic Performance. *Cambridge*: Cambridge University Press.
- Palestine Economic Policy Research Institute (MAS)., Economic& Social Monitor", several editions,(1994-2013). Ram Allah , Palestine.
- Palestinian Central Bureau of Statistics(PCBS). Foreign Trade Statistics, several editions,(1994-2013). Ram Allah , Palestine.
- Palestinian Central Bureau of Statistics (PCBS). Key Economic Indicators in West Bank and Gaza Strip, several editions,(1994-2013). Ram Allah , Palestine.
- Palestinian Central Bureau of Statistics (PCBS). labour force survey, several editions.(1994-2013). Ram Allah , Palestine.
- Petrakos , George . Arvanitidis, Paschalis. & Pavleas, Sotiris.2007. Determinants of Economic Growth: The Experts' View", DYNREG Dynamic Regions in a Knowledge Driven Global Economy Lessons and Policy Implications for the EU, WORKING PAPERS ,No 20.
- Podrecca, E. & Carmeci, G. 2001.Fixed Investment and Economic Growth: New results on Causality. *Applied Economics* 33, 177-182.
- Pritchett, L. 2001. Where has all the education gone?. *World Bank Economic Review*, 15, 367-91.
- Romer, P. 1986. Increasing Returns and Long Run Growth. *Journal of Political Economy*,. 94, 2, 1002-1037.
- Sala-i-Martin, X. 1997.I Just Ran Two Million Regressions. *American Economic Review, Papers and Proceedings*, 87(2), 178-183.
- Solow, R. 1956. A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* 70, 65-94.
- Ulku, H. 2004. R&D Innovation and Economic Growth: An Empirical Analysis. *IMF Working Paper* 185.
- Zak, P. & Knack, S. 2001.Trust and growth. *The Economic Journal*, 111, 295-32
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