

## THE IMPACT OF INTERNATIONAL AID ON ECONOMIC GROWTH OF AFGHANISTAN

### ULUSLARARASI YARDIMLARIN AFGANİSTAN'IN EKONOMİK BÜYÜMESİNE ETKİSİ

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**Abstract:** *Although foreign countries and international organizations have provided 73 billion dollars to this day and Afghanistan has plentiful natural resources, Afghanistan is still one of the impoverished countries in the world. This fact leads to a question: Does foreign aid boost Afghanistan's economic development? This paper aims to examine the impact of Official Development Assistance (ODA) on the Gross Domestic Products (GDP) of Afghanistan to find out whether ODA has led to economic growth in Afghanistan or not? We have analyzed the impact of international aids on the real GDP of Afghanistan by using Johansen's Cointegration test and Fully Modified Least Squares (FMOLS) model with data from 1984 to 2017 for 34 years. The result has revealed that official development assistance has a positive long-run impact on GDP of Afghanistan, as one percentage change in ODA leads to an increase of 0.32% in GDP in the long run.*

**Keywords:** *official development assistance, international aid, foreign aid, economic development, Afghanistan.*

**Özet:** *Afganistan yabancı ülkelerden ve uluslararası örgütlerden bugüne kadar 73 milyar dolardan fazla yardım almış ve doğal kaynaklar bakımından zengin bir ülke olmakla birlikte hala dünyanın yoksul ülkelerinden biri. Bu olgu önemli bir soruyu gündeme getiriyor: Dış yardım Afganistan'ın ekonomik kalkınmasına katkı sağlıyor mu? Bu çalışma, resmi kalkınma yardımlarının (ODA) Afganistan'ın Gayri Safi Yurtiçi Hâsılası (GSYH) üzerindeki etkisini incelemeyi amaçlamaktadır. Çalışmada uluslararası yardımların Afganistan'ın reel GSYH'sine etkisi, 1984'ten 2017'ye 34 yıllık veriye dayanarak Johansen'in Eşbütünleşme testi ve Tamamen Değiştirilmiş En Küçük Kareler (FMOLS) modeli aracılığıyla analiz edilmiştir. Sonuçlar, resmi kalkınma yardımlarının Afganistan GSYH'si üzerinde olumlu bir uzun vadeli etkiye sahip olduğunu ortaya koymuştur. Resmi kalkınma yardımlarında yüzde 1'lik değişim uzun vadede kişi başına GSYH'de %0,32'lik bir artışa yol açmaktadır.*

**Anahtar Kelimeler:** *resmi kalkınma yardımları, uluslararası yardımlar, yabancı yardımlar, ekonomik kalkınma, Afganistan.*

## INTRODUCTION

The total budget of the Afghanistan government is almost \$7 billion in the year 2017 and international aid is covering almost 70% of Afghanistan's national budget (Cooper, 2018). While the international community especially the U.S. is providing billions of aids to Afghanistan since 2001, almost \$127 billion is spent on Afghanistan reconstruction and \$750 billion on U.S. military operations. Keeping this in mind that 40% of Afghanistan citizens are unemployed, more than 55% of people live under the poverty line and 70% of people don't have access to electricity around the country, besides Afghanistan is a country that has almost 3 trillion-dollars' worth of natural resources that are not extracted yet (Zazai, 2018). The fact that economic and social underdevelopment despite the huge amount of international aids raises a question: Does international aid work in the economic development of Afghanistan? In this study, we have explored the reasons behind this phenomenon to see if Official Development Assistance (ODA) resulted in the economic growth of Afghanistan or not and to discuss solutions for the efficient and effective use of ODA in Afghanistan (Zazai, 2018).

Foreign aid is the transfer of goods, services, and capital (grants or concessional credits) from an international organization such as the United Nation, World Food Program, the World Bank agencies, or developed countries to the aid needed or aid recipient countries for the sake of helping those countries which are facing or had faced natural disasters or other problems, those aids can be in different forms such as military aids, humanitarian aids, and others (Williams, 2015).

The ODA is the most common type of international aid which is defined as “government aid that promotes and specifically targets the economic development and welfare of developing countries” (OECD, 2019). As per Williams (2015), ODA is provided to fight poverty and enhance development, those aids are varied for instance in grants shapes as well as provides supports through the international non-profit organizations like IMF, UNICEF, etc. The reasons developed countries provide that assistance to developing or least developed countries are; to protect their land from outside terror activities or to keep peace in their countries and for maintaining good diplomatic relationships with those countries and to have allies in the region for having their support in time or requirement plus to form their army bases in those countries and sell them their exports, spread their language, religion and cultural, furthermore, every foreign aid program has its purpose and design to achieve several of those purposes.

The scheme of foreign aid has increased with the World War II with the name of Dwarfed Prewar Assistance. As this program was applied by the former western colonial powers to their colonial countries or in modern history, the rivalry of the United States and the Soviet Union during the Cold war felt obliged to use foreign aid as a weapon to gain diplomatic advantages, for instance, we could mention the Marshall Plan in 1947 which is applied by the US to help Turkey and Greece to stop spreading communism in the region.

In the aftermath of the collapse of the Soviet Union, the stand and purpose of the US and European Union have changed toward assisting poor countries for economic development and to combat natural disasters HIV/AIDS spreading, moreover, it's used for monitoring judicial, the election process, promoting democracy and holding

from those countries which are resisting from such reforms (Williams, 2015). “Official development assistance is official aid delivered by governments and official agencies in the 23 countries that are members of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) plus the European Commission. The DAC has strict qualifying criteria focused around two key principals: the primary objective must be the welfare and economic development of developing countries; and assistance must be concessional either through the provision of grants or soft loans” (Development Initiatives, 2012).

As per a report to U.S congress regarding the total amount of aids to Afghanistan until the end of 2014 by SIGAR (2015) that illustrate the amount of \$104 billion has paid for the reconstruction of Afghanistan this amount does not include other donors, who donated billions of dollar which international donors paid amount to Afghanistan, considering the inflation these funds are more than the USA disbursed during the Second World War for the building of 16 European countries under the Marshall Plan, However, due to the high corruption in Afghanistan government, these official development assistances have unexploited or have not used properly. Based on the IMF (2018) report, Afghanistan is considered among the poorest countries in the world, as it ranked 183<sup>rd</sup> out of 192 countries, and the per capita income of a person is 663\$ in a year keeping in mind the huge amount of \$104 billion ODA spent in Afghanistan.

In response to the above, SIGAR reports the Finance Minister Dr. Omar Zakhilwal of the Islamic Republic of Afghanistan responded that "In total Afghanistan received 60 billion US dollar and out of that amount just 8 to 9 billion USD has given to Afghanistan government to be used and remaining is either spent or transferred to outside of Afghanistan by donor countries from Afghanistan". He furthermore added, "We have several times requested the donating countries to provide at least 50% of donations to Afghanistan government, and we are giving a full report on spending these amounts on long and short term projects" (Jalalzai, 2013).

In another report of BBC (2014), the economy minister of Afghanistan government, Mr. Abdul Hadi Arghandiwal said that “The assistance amount of \$104 billion is not true, saying that \$73 billion has been donated to Afghanistan so far, with only 17% being provided to the Afghan government”. He considers the international community to be the cause of corruption in Afghanistan and says that all the budget used by the Afghan government is accountable and that it is very difficult to account for cases where the Afghan government has no control over budget spending by foreigners. Mr. Arghandiwal declared that “The 82% of these aids are spent out of national budget by foreigners themselves that means the Afghan government does not have control and cannot be accountable about that amount, that is why at the Tokyo conference, the Afghan government insisted that at least 50% of aid should be spent through the Afghan government and its national budget”.

As it is mentioned above the enormous amount of official development assistance provided to Afghanistan, grounded on the World Bank data from 2002-2017 the amount of \$73 billion is disbursed to Afghanistan, nevertheless, Afghanistan is still

one of the most deprived countries in the world while having an immense amount of natural resources in the region.

Looking at all this data, this research is going to find out, does ODA has a positive effect on GDP in the long run, what are the main problems in ODA spending in Afghanistan? We econometrically study the first question by the data from 1984 to 2017 for 34 years. The second question is discussed based on the empirical finding of this paper and the literature related.

The rest of the paper is organized as follows. The next section presents the literature review. Section three explains the data and methodology for empirical analysis. It is then followed by the results of econometric analysis. The final section concludes.

## **1. LITERATURE REVIEW**

The impact of foreign aids on the economic development of recipient countries has recently been researched in the context of underdeveloped countries. In a case study by Mallik (2008), regarding the impact of ODA on the economic growth of six poorest African countries, the result shows that despite providing \$1 trillion during 35 years to these countries the ODA has no significant effect on the economic growth of these countries. The result demonstrates that there is no significant impact of ODA on GDP per capita income of five out of the six countries in the short and long run it is to mention that the only positively affected country was Niger. These findings give the impression to indicate the long-run negative effect of ODA or foreign aid on the living standards of mentioned six African countries (Mallik, 2008). Humayoon (2015) analyzed the comparative effect of ODA on the GDP of South Korea and Afghanistan. This paper expresses that GDP has positively affected by ODA in Korea for instance with a 1% increase in ODA, GDP was impacted by 4% and the reasons behind such effective results were policies and minor corruption in government institutions, although it has an inverse impact in Afghanistan.

Gitaru (2015) has investigated the effect of ODA on economic growth and development in Kenya. The research findings show that there is the existence of the positive effect of international aid on the economy of Kenya, for instance, a percent of international aid in the previous year made a four percent rise in GDP of the current year which is a significant increase in GDP of Kenya. It is to mention that these aids are effectively and efficiently used for the development of infrastructure and productive projects where the gross domestic product is the effect and has trickled down after a previous year of investments. This research recommends that strong reforms in the institutions to encounter the existence of broad corruption and improving the good governance plus effectively and efficiently usage of international aid with the monitoring of donor countries for avoiding misappropriations of aids that could lead foreign aids to economic growth and development in aid recipient countries.

In a research paper by Siddique *et al.*, (2017: 34-37), the relationship among foreign aid and economic growth in East and South Asian countries have been investigated from 1995 to 2013 by using panel data and dynamic panel estimation method. The result shows that there is a significant and robust impact of foreign aid

in promoting economic growth. The research article suggests that aids should be used for development purposes and aids are related to the policies of the country. Moreira (2005: 25-49) describes that some works of literature regarding the impact or effectiveness of foreign aid role on the economic growth of developing countries, in the micro aspect, foreign aid has always been contributed positively to economic growth, although in long run it has several different impacts positive, negative, or even nonexistent impact in terms of statistics. As the researcher has conducted panel data research on the impact of foreign aid on economic growth in the short and long run for 48 developing countries during 1970-1998 and the result shows that foreign aid has a positive impact in the short and long run on the economic growth of these countries. However, aid has less impact in the short-run than in long run on economic growth.

Adebayo *et al.* (2020) has examined the foreign aid and economic growth impacts in Nigeria by using two gap framework based on ARDL, FMOLS, and DOLS models. The result shows that in the long run, gross capital formation, domestic savings, and foreign aid have a positive impact on economic growth and in the short run all the independent variables have significant and positive impacts on the economic growth in Nigeria (Adebayo *et al.*, 2020).

In an assessment of international aid to Afghanistan, Fayeze (2012) elaborates that with the billions of dollars of aid from international donors to Afghanistan since 2002, the economic situation of Afghanistan has not improved, from the living standard of the people to other factors like 30% of the total population still lives under the poverty line. The unemployment rate in the economy is as high as 40% (in a labor force of around six million). The infant mortality rate is high, with one in five children dying before the age of five. The maternal mortality rate is among the highest in the world, and overall life expectancy is only 45 years. This case study expresses that the international aid program was not such an efficient way and the non-existence of policies and corrupt government institutions are the factors that did not result in economic development but rather to make Afghanistan an import oriented country and international aid-dependent country. A paper regarding assessments of ODA to Africa by Ali *et al.*, (1999) suggests that there should be three important factors to be considered in ODA flowing to recipient countries. First, the scheme of ODA flow should be through an official channel, second, the main purpose of ODA should be economic growth and development and welfare of the people, third, ODA flow should be on concessional terms or at least 25% on loan from the total amount.

A study by Yiew and Lau (2018) that investigates the impact of ODA on the economic development of 95 developing countries by controlling estimates against foreign direct investment and population. The results demonstrate that the ODA has a U-shape effect on GDP that means in the short term it negatively effects on the GDP but after some time it is positively affecting the GDP of developing countries and it is to express that foreign direct investment and population are playing a vital role in the high or low result of ODA. In another paper on the effect of ODA on the economic development of Cameroon from 1960 to 2013, it has revealed that the ODA has a negative effect on economic growth (Tendongho, 2016).

A study that tracks the flow of aid to the countries suffering from armed conflict shows that ODA is not sufficiently used for economic development or achieving the minimum preplanned economic goals, especially in the health sector although these countries are heavily reliant on international aids (Patel *et al.*, 2010). In another study by Beenstock (2002) examining the factors affecting the annual increase or decrease in the amount of ODA to developing countries based on the multiple-regression method, the result shows that GDP is more important, besides per capita income, unemployment, political factors, and other macroeconomic factors play a vital role in disbursement aids to deprived countries.

Vietnam is considered a rapidly growing Asian country that has achieved middle-income status in 2009. There are many reasons behind its rapidly growing economy and one of the most important among other factors is the efficient and effective use of ODA. ODA provided mostly by Asian Development Bank, World Bank, and Japan for more than a decade made it possible that this country becomes one of the fast-growing Asian countries (Feasel, 2013).

The results of research (Boone, 1995) that has assessed the effect of international aid on economic/political regimes of 96 aid-recipient countries show that international aid neither lead to economic growth and investment in the economy nor it benefits the poor as predicted, although it enlarged the size of governments. In a study of Hansen and Tarp (2001) performed on 56 countries on the relationship between ODA and growth in real gross domestic product per capita, the results reveal that there is a high chance that ODA lead to rises in growth rate, and this outcome is not restricted to good policy but there is decreasing return on ODA in different countries. Minoiu and Reddy (2009) divide ODA into developing and non-developing ODA and examine the effect of ODA on the economy of developing countries. The result shows that the assistance which is taken place for development purpose has a significant effect on economic growth and development in developing countries.

**Table 1: The Literature Summary**

Author	Sample	Findings
Boone (1995)	96 Aid recipient countries	The international aid neither leads to economic growth nor it benefits the poor as predicted, rather it enlarges the size of governments.
Ali <i>et al.</i> (1999)	Aid recipient countries	The scheme of ODA flow should be through an official channel, and, the main purpose of ODA should be economic growth.
Hansen and Tarp (2001)	56 Developing countries	ODA leads to rises in growth rate, but there is a decreasing return on ODA in different countries.
Beenstock (2002)	Aid recipient countries	the ODA amount is affected by GDP, besides per capita income, unemployment, political factors, and other macroeconomic factors.
Moreira (2005)	48 developing countries over 1970-199	A positive impact of foreign aid on the economic growth in the short and long run
Moss (2006)	Sub-Saharan African countries	There is a negative relationship between foreign aid and good governance.
Mallik (2008)	Niger and 5 other poorest African	There is no significant impact of the ODA on GDP per capita income, except for Niger.

	countries	
Minoiu and Reddy (2009)	Developing countries	Aid for development has a significant effect on economic growth/development.
Patel <i>et al.</i> (2010)	Countries suffering from armed conflict	The ODA is not sufficiently used for economic development or achieving the minimum preplanned economic goals.
Fayez (2012)	Afghanistan	The main reasons for the aids' inefficiency in Afghanistan are the non-existence of policies and corrupt government institutions.
Feasel (2013)	Vietnam	The efficient and effective use of ODA is one of the most important among other factors behind Vietnam's rapidly growing economy.
Gitaru (2015)	Kenya	The positive effect of international aid on the GDP.
Humayoon (2015)	South Korea	GDP has been positively affected by ODA in Korea.
Tendongho (2016)	Cameroon over 1960 - 2013	ODA has a negative effect on economic growth.
Kaur and Sitlhou (2017)	Aid recipient countries	The ODA distribution to the deprived citizens is also considered vital in good governance.
Siddique <i>et al.</i> (2017)	East and South Asian countries over 1995-2013	A robust impact of foreign aid in promoting economic growth.
Yiew and Lau (2018)	95 Developing countries	In the short term, ODA negatively affects the GDP however, in long term, it is positively affecting the GDP.
Adebayo <i>et al.</i> (2020)	Nigeria	In the long run, gross capital formation, domestic savings, and foreign aid have a positive impact on economic growth.

Despite receiving enormous foreign aids for over 50 years and having abundant natural resources, Cameroon is still considered as developing countries. With this motivation, Tendongho (2016) has examined the impact of foreign aid on the economic growth of Cameroon. The time-series data from 1960-2013 by using the Vector Autoregression Model and keeping in mind the effectiveness of increasing or decreasing aids on economic growth has been investigated. Consequently, the results showed that there is a negative relationship between foreign aid and economic growth for the mentioned period in Cameroon and there is no evidence that says with an increasing amount of aid economic growth is positivity impacted.

Besides the above literature regarding the impact of ODA on economic growth, the impact could be considered the institutional quality of aid-recipient county. Thus, some studies focus on good governance in aid-recipient countries in examining the impact of ODA. In this context, Kaur and Sitlhou (2017) have studied the relationship between ODA and good governance, and the results show that the ODA distribution to the deprived citizens is also considered vital in good governance, besides transparency, people's participation, accountability, effective and efficient institutions. Annually developing countries receive \$180 billion although there is still the existence of corruption, gender inequality, unequal distribution of health, illiteracy, and segregation of deprived people from receiving ODA. Kaur and Sitlhou (2017) suggest that if donor countries want economic growth in ODA recipient countries they need to follow certain methods for ensuring effective usage of ODA, otherwise this scheme would not result in economic growth in those countries.

Another study by Moss (2006) conducted on sub-Saharan African countries assessing the reliance on the foreign aid and its' relationship with good governance shows that there is the existence of a negative relationship between foreign aid and good governance, for instance, those governments that receive a huge amount of foreign aid don't consider themselves accountable for their citizens and don't provide good services for their countrymen because receiving foreign aids, besides that the governments don't invest ODA in effective and efficient ways which could result in improving governmental institutions (Moss, 2006).

The discussion of the inflow of millions of international aids to Afghanistan has continued but there are no or less empirical researches that provide comprehensive information on ODA's impact of the economic performance of Afghanistan or not. Or what are the main problems Afghanistan and donor countries facing in spending of ODA in Afghanistan? To find relevant answers to these questions we would use an inclusive empirical method and facts regarding ODA suggested in the literature and cases. Depend on these, we will provide suggestions and recommendations regarding the most appropriate ways of spending ODA in Afghanistan.

Consequently, the objectives of this research are to find out the impact of official development assistance on the economic growth of Afghanistan and to discuss the important factors for efficient usage of official development assistance in Afghanistan depending on experiences from other developing countries.

## 2. DATA AND METHODOLOGY

According to the earliest models developed by Chenery and Strout (1966), in economies that have a high supply of labor, economic growth is a problem due to three gaps as saving gap, trade balance gap, and fiscal gap. Taking into account these gaps, the capital needed to empower the economic growth could be completed through ODA.

Mallik (2008) expressed that commonly utmost poor countries are not able to make investment or expenditure in their countries due to an insufficient amount of savings. Therefore, the mentioned countries need foreign aid that can be invested in different projects and sectors of countries. The fiscal gap was first explicitly modeled by Bacha (1990) and Taylor (1990). Depending on this approach and empirical literature, we adopt the following functional relation:

$$\ln RGDP_t = f(\ln NODA_t)$$

Where  $\ln RGDP_t$  is the natural log of real GDP (USD) at time  $t$  and  $\ln NODA_t$  is ODA (official development assistance) as a percentage of nominal GDP at time  $t$ .

The empirical strategy is as followed: firstly, descriptive statistics and correlations would be examined and after that, Augmented Dickey-Fuller Unit Root tests for each series would be performed. Secondly, the number of optimal lag length criteria by using VAR lag length criteria would be determined. After that VAR stability test, cointegration among variables and causality would be examined through Johansen's Cointegration and VAR Granger Causality/Block Exogeneity Wald Tests.



For finding out the stability of our model, the Breusch-Godfrey Serial Correlation LM Test and CUSUM test would be executed. Lastly, the long-run relationship among variables would be analyzed through the Fully Modified Least Squares (FMOLS) Method.

The data regarding this research is taken from different sources, the GDP data is taken from Country Economy (2020) and World Development Indicators of the World Bank (2020). The ODA data are also taken from the World Bank (2020). The dataset consists of 34 yearly observations to 2017 from 1984.

### 3. EMPIRICAL RESULTS

The descriptive statistics are shown in Table 1 below.

**Table 2: The Descriptive Statistics**

	GDP	NODA
Mean	3.75	2.75
Median	3.55	2.66
Maximum	4.31	3.84
Minimum	3.33	0.28
Standard Deviation	0.35	0.94
Sum	127.66	93.33
Sum Square Deviation	3.92	29.22
Observations	34	34

Descriptive statistics of variables are presented in Table 2. Table 3 presents the covariance analysis test to see the correlation between GDP and NODA.

**Table 3: Covariance Analysis: Ordinary**

	GDP	NODA
GDP	1.00	
NODA	0.78	1.00
	0.00	-----

According to the result of covariance analysis, there is the existence of a strong correlation between variables as we can see the correlation is more than 60 percent which is 78 percent and it shows that the relationship between our variables is significant and strong.

**Table 4: Unit Root Test for the Variables**

Augmented Dicky Fuller Unit Root Test of Variables			
Variables	t-Statistics	Prob.*	Stationarity level
LGDP	-6.42	0.00	I(1)**
LODA	-8.37	0.00	I(1)**
***, **, * indicates the 1%, 5%, and 10% levels respectively. Null Hypothesis: there is the unit root; Alternative Hypothesis: There is no unit root			

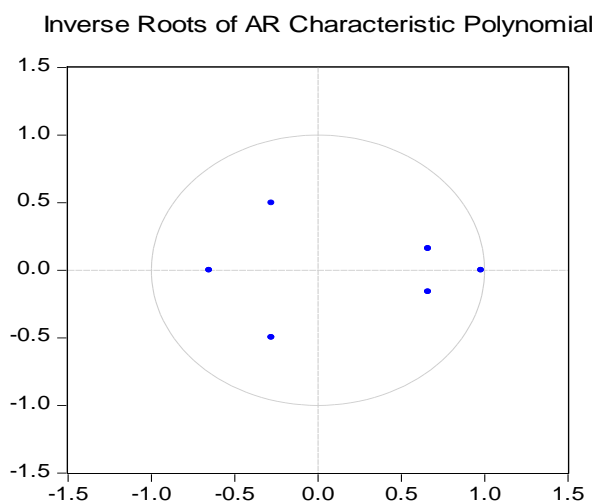
As per the ADF unit root test, it is observed that our variables are stationary at the first difference and significant in 5%, therefore, all variables are integrated of order 1 [I (1)].

Table 5 presents the lag order selections for the VAR estimation by depending on various the optimal lag selection criteria.

**Table 5: VAR Lag Order**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-20.81	NA	0.02	1.47	1.56	1.50
1	42.18	113.80*	0.00	-2.33	-2.06*	-2.24*
2	45.10	4.90	0.00	-2.27	-1.80	-2.11
<b>3</b>	<b>50.95</b>	<b>9.06</b>	<b>0.00*</b>	<b>-2.38*</b>	<b>-1.74</b>	<b>-2.17</b>

Based on the AIC method, the third lag length was selected. Depending on these, for determination of stability of the model, the VAR stability test would be executed and then we will test if our variables are cointegrated or not in the long run.



**Graph 1: VAR Stability**

Based on the above VAR stability test analysis it is clear in the above graph that no point lies outside the circle and it is concluded that the VAR model is stable and cointegration test could be performed.

**Table 6: Johansen Cointegration Test**

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
<b>None *</b>	<b>0.45</b>	<b>19.20</b>	<b>15.50</b>	<b>0.01</b>
At most 1	0.05	1.44	3.84	0.23
1 Cointegrating Equation(s):		Log-likelihood	55.48	
Normalized co-integrating coefficients (standard error in parentheses)				
GDP	NODA			
1.000000	-0.77			
	(0.10)			

Founded on the above Johansen Cointegration test result that the probability value is 5% it is expressed that the result is statistically significant besides if the trace statistics value is more than the critical value that is also confirming the robustness of the result, thus, we can reject the null hypothesis and accept the alternative hypothesis. Consequently, it is concluded that the model is cointegrated and all variables are moving together in long run.

For finding out if variables are Granger-cause each other or not, the VAR Granger Causality/Block Exogeneity Wald Test was performed.

**Table 7: VAR Granger Causality/Block Exogeneity Wald Tests**

Dependent variable: GDP			
Excluded	Chi-sq	Df	Prob.
NODA	11.88	3	0.008
All	11.88	3	0.008
Dependent variable: NODA			
Excluded	Chi-sq	Df	Prob.
GDP	31.90	3	0.000
All	31.90	3	0.000

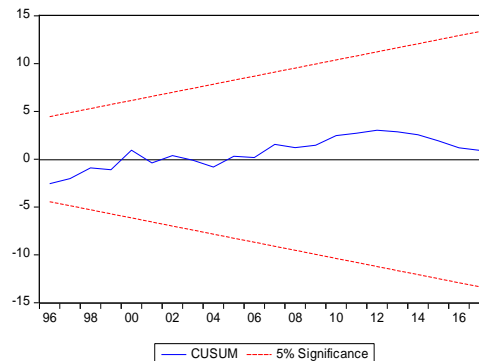
As per the VAR Granger Causality test and the probability value of 5% it is expressed that NODA granger cause of GDP and GDP granger cause of NODA and conclude that variables have a causal relationship with each other and the result is statistically significant.

For discovering if there is a serial correlation among our variables we would perform the Breusch-Godfrey serial correlation LM test.

**Table 8. Breusch-Godfrey Serial Correlation LM Test**

F-statistic	2.05	Prob. F(3,19)	0.14
Obs*R-squared	7.33	Prob. Chi-Square(3)	0.06

Based on the above residual diagnoses LM serial correlation test it is observed that the probability value is more than 5% thus we can express that there is no serial correlation, thus the null hypothesis cannot be rejected, and conclude the non-availability of serial correlation among variables.



**Graph 2: CUSUM Test**

As per the above the CUSUM test with a significant level of 5%, we can observe that the model is dynamically stable and it is observed that the blue line is not crossing the red line boundaries, therefore, it can be expressed that our model is stable and acceptable.

We performed the Fully Modified Least Squares (FMOLS) test to find out the long-run effect of NODA on the GDP of Afghanistan.

<b>Table 9: The Fully Modified Least Squares (FMOLS) Regression</b>				
Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NODA	0.32	0.07	4.53	0.000
C	2.90	0.21	14.04	0.000

Based on the result of the above FMOLS test, the result is statistically significant according to the p-value of 5%, and the existence of the long-run relationship between GDP and NODA is confirmed. The 1% change in net official development assistance leads to a 0.32% change in GDP per capita. As per the values of the long-run coefficient and probability value of 5% for estimations approve the robustness of estimated results.

Constructed on the above analyses, it can be said that with a percentage increase in ODA, GDP per capita is increased by 7% in the short run in Afghanistan.

## CONCLUSION

Foreign aid is considered as a vital source of capital that could result in a long-run sustainable economic growth in poor countries for instance in the case of South Korea a percent increase in ODA has impacted GDP positively by 4% although in the case of Afghanistan, due to ineffective and inefficient use of ODA, the country has become an aid-dependent country and 55% people lives under the poverty line beside the government is unable to finance its budget.

Based on our analyses regarding the impact of net official development assistance (NODA) on the GDP of Afghanistan from 1984-2017 for 34 years by using Johansen Cointegration and FMOLS tests, the result is statistically significant and robust. It shows that ODA has a positive and long-run impact on the GDP of Afghanistan as a result of a 1% increase in ODA has a 0.32% increase in the GDP of Afghanistan in the long run.

Additionally, based on comprehensive studies on the impact of ODA on economic growth, we offer suggestions regarding how the Afghanistan government and donor countries can have a better outcome from official developing assistance in Afghanistan. In the Afghanistan case, the current war in the country has been consuming more than half of Afghanistan's budget and foreign aids in the country besides that another negative impact of war is that insurgent or terrorist groups do not let the development projects to be completed in provinces under their control

across the country. Therefore, initiating peace talks with insurgent groups and focusing on the peace process could result in rapid economic growth in Afghanistan.

Besides that, there are two most important reasons behind the efficient and effective use of ODA, based on international researches: having un-corrupted governmental institutions and having good policies in ODA spending. Unfortunately, in the Afghanistan case, we have the absence of both mentioned criteria, so donor countries at first should emphasize on building transparent and strong government institutions that are not corrupt, efficient, effective, and accountable. Secondly, donor countries should emphasize on strengthening the current policies regarding the spending of ODA by the Afghanistan government that could ensure the efficient usage of ODA in strategic projects that could lead to long-term economic growth. As it is mentioned early in this study that Afghanistan is still one of the poorest countries in the world, while it has \$3 trillion of natural resources, and the government should invest in the extraction of natural resources for boosting the Afghanistan economy.

Another vital factor is the unavailability of cooperation among Afghanistan government and donor countries regarding ODA spending independently by donor countries on short term and nonessential projects, not on strategic projects that could result in economic stability and growth of Afghanistan. Therefore, the cooperation between donor countries and the Afghanistan government on the spending of ODA based on a comprehensive plan would increase the efficiency of foreign aids to accelerate the economic growth of the country.

There are many other reasons such as political instability, low domestic production, low investment (domestic and foreign), drug mafias, illiteracy, etc. which has also affected the ODA ineffectiveness in Afghanistan. All these factors are worth examining in terms of their relationship with ODA. Considering data constraints, this study has only focused on the relationship between economic growth and ODA.

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