

**THE EFFECT OF FOREIGN CAPITAL INFLOWS ON ECONOMIC GROWTH IN  
SOUTH AFRICA**

by

**JULIUS K.T NYAMWENA**

**Email: [juliusn@uj.ac.za](mailto:juliusn@uj.ac.za) or [tinahnyam1@gmail.com](mailto:tinahnyam1@gmail.com)**

## **ABSTRACT**

The low saving culture experienced in many African nations implies that domestic resources fall short of capital requirements. To augment the shortages, the nations, depend largely on foreign capital inflows. Neoclassical growth models espouse the greater role that capital plays in stimulating economic growth. This study investigated the effect of foreign capital flows on economic growth in South Africa with emphasis on the following components of foreign capital inflows namely foreign direct investment (FDI), foreign aid and diaspora remittance. This study, employed the Johansen Cointegration test and Vector error correction model in determining both the long-run and short-run effect of foreign capital inflows on economic growth in South Africa. The study used time series data for the period 1970 to 2015 which was obtained from the World Bank dataset.

The results of the study showed that all the variables were stationary at first difference as confirmed by both the Phillips-Peroni and Augmented-Dickey Fuller test. Johansen Cointegration test revealed that foreign direct investment had a negative effect on economic growth of 0.0246% while foreign aid had a positive effect of 0.01199% to economic growth. Furthermore, the results showed that diaspora remittance had a positive effect of 0.59% to growth. The vector error correction model revealed that 21.1428 % of the disequilibrium in the previous year is corrected within one year which imply that it will approximately take 5 years for the estimated model to return to equilibrium if it is disturbed.

The study proposed the following recommendations to improve the effect of foreign capital inflows on economic growth in South Africa, there is need to adopt policies that provide macroeconomic stability which is consistent and avoid policy inconsistencies and uncertainty which chase away investors. Furthermore, if more to attract FDIs it is crucial that government offer incentives such as tax holidays to foreign investors as a way to attract more FDIs. With regard remittance, South Africa should explore this venture by encouraging its emigrant workers to continue sending money back home. The study also suggests that if foreign aid is to realise its positive effect to economic growth it needs to be channeled to productive ends to contribute to economic growth.

## 1. Introduction

The low saving culture experienced in many African nations implies that domestic resources fall short of capital requirements. To augment the shortages, the nations, depend largely on the foreign capital inflows in the form of either foreign aid or foreign direct investment (FDI). These additional foreign capital inflows have a huge role in heightening capital accumulation and fostering economic growth needed to combat poverty and inequality challenges. As a result, African governments have prioritised policies that seek to attract foreign capital inflows to stimulate economic growth. Amusa, Monkam and Viegi (2016) suggest that foreign capital inflows provide resource constrained countries with an important source of funding for development purposes that stimulate investment and growth. They also point out that foreign capital inflows generate other vital spill-overs such as job creation, infrastructure development and facilitate socio-economic development. Against this background this study, sought to interrogate the effect of foreign capital inflows on economic growth in South Africa using time series data for the period 1970 to 2015.

### 1.2 Background of the study

Proponents of the positive effect of foreign capital flows on economic growth argue that, they spur economic growth mainly through two channels either directly or indirectly. The direct channel asserts that an increase in capital reduces cost of capital and enhances production while the indirect channel posits that foreign capital inflows influence economic growth by indorsing specialisation leading to crafting of improved policies that will increase the capital flows (Orji, Uche and Ilori 2014). However, a retrospection into the empirical literature on the effect of foreign capital inflows on economic growth has produced mixed results. The first group of studies (Aizenman, Jinjark and Park, 2013; Alfaro, Kalemli-Ozcan and Volosovych, 2011; Kose, Prasad and Terrones 2009) suggest that foreign capital inflows have a positive effect on economic growth. The second group of studies suggest that foreign capital inflows have a negative effect on economic growth (Prasad et al. (2007). The final group of studies (Edison et al. 2002 and Kraay 1998) postulate that there is no relation at all between foreign capital inflows and economic growth.

This lack of consensus among economists on the effect of foreign capital inflows on economic growth either stemming from different methodology adopted or type of foreign capital inflows indicators used, calls for further investigation. The most common type of foreign capital inflows indicators that have been used include foreign direct investment, foreign debt and portfolio investments. However, Aizenman, Jinjark and Park (2013) have found that FDI positively influences growth while non-FDI flows (portfolio investment, debt and equity) do not have significant positive effects on economic growth other than provision of access to foreign savings. Amusa, et al. (2016) indicate that foreign aid also plays an important role since it is an alternative source for financing for development initiatives.

This study, adds to this debate on the foreign capital inflows and economic growth nexus by incorporating two other variables of foreign of capital inflows in the South African literature, which are, foreign aid and diaspora remittance. The reason being Africa has received considerable large inflows as foreign aid and also the continent has its sons and daughters who are spread all over

the world. This is in line with the studies of Chigbu, et al. (2015). Few studies have used the Johansen cointegration method of estimation to determine the long run relationship between foreign capital inflows and economics growth. This study, by adopting the Vector Error Correction Model (VECM) seeks to determine both the short-run and long-run effects of the chosen foreign capital inflows variables on economic growth in South Africa.

According to the data from the World Bank, Sub-Saharan Africa has since 1970 received over US\$0.43 trillion and US\$1.071 trillion United States Dollars in FDI and foreign aid respectively (Amusa, et al. 2016). South Africa has during the same period received over US\$80 billion and US\$15 billion as FDI and foreign aid respectively. Furthermore, over US\$14 billion has also been received as diaspora remittance over the same period. These figures represent large volumes of money “capital” into the economy, hence given the theoretical perspective the economy should thrive.

However, as indicated earlier there is an inherent disconnection that exists between theoretical and empirical literature on the effect of foreign capital inflows on economic growth. This study seeks to investigate the effect of foreign capital flows on economic growth in South Africa with emphasis being placed on the following components of foreign capital inflows FDI, foreign aid and diaspora remittance. The addition of foreign aid and diaspora remittance presents a divergence from prior studies that have considered foreign debt and portfolio investment which empirical evidence has shown to have insignificant positive effect on economic growth.

## **2. Literature Review**

The traditional neoclassical growth theory was initially instigated by Harrod–Domar and Solow models gives prominence to three key factors that are critical in stimulating economic growth (Rebelo, 1991). These three are namely labour, capital and technological progress. Improvements in labour may be as result of changes in quantity and quality of the labour force while increases in capital are represented through changes in the savings and investments (Solow, 1956). In the neoclassical growth theory, the growth rate is said to be a function of external factors via technical progress. As such the neoclassical growth is often referred to as exogenous growth theory. Therefore, opening up the economy has the potential of increasing the rate of capital accumulation and returns on investments. The emergence of endogenous growth theories provides another divergent perspective.

This study in light of the fact that many developing countries encounter constraints in capital which is further worsened by an inherent low saving culture seek to attract foreign capital inflows to circumvent these capital shortages. The Harrod–Domar and Solow growth models highlight that accumulation of capital is a vehicle for ongoing economic growth. Chigbu (2015:1) states that mostly less developed countries are entrapped by the vicious circle of poverty and already lack the capital resources. This also implies that the incomes are also relatively low which, in turn, hinder any meaningful savings hence savings rate is again very low.

While the endogenous growth theories stresses that internal factors such as financial development, human capital development, and quality of institutions can provide incentive for

economic growth. This study seeks to determine the effect of foreign capital inflows on economic growth in South Africa, since Harrod- Domar and Solow growth models give prominence to savings and capital as being major drivers of economic growth irrespective whether domestic or foreign.

## 2.2 Foreign Capital inflows theory

According to Summers (2000) suggest that enormous social and economic benefits accrue as a result of capital inflows from developed countries to developing countries. He argues that these capital inflows can improve the standard of living in recipient economies by augmenting domestic investment. The crux of this study emanates from the notion by Gerschenkron (1952) that “Foreign capital flows may be associated with increased efficiency of production, and thus with higher growth rates. However, four schools of thought have emerged on the relationship between foreign capital inflows and economic growth. These are the neoclassical school, corollary school, anti-capital flows and Asian view (Eichengreen 2007). The neoclassical school on capital flows suggests that capital flows from low return avenues to high returns which implies that capital flows from developed countries to emerging countries where returns are expected to be high hence increased growth rates while the corollary school on capital flows points out that capital flows may not have direct benefits but indirect ones like it leads to better corporate governance, deepening of financial markets, better institutions. The Anti-capital school on capital flows believes capital flows are damaging to an economy and should at best be restricted. Then lastly the Asian school on capital flows believes managing capital flows is tough and looks at possible ways to minimise the problems from capital flows. This study took the neoclassical school and believes these capital flows is espoused by the neoclassical growth models are essential in stimulating economic growth.

Prasad et al. (2007) advances that capital flows benefit recipient economies by supplementing domestic savings, lowering the cost of capital owing to better risks allocation, enhancing transfer of technology, developing the financial sector and inducing better policy formulation and support consumption smoothing. This in turn leads to an increase in economic growth. This section provides some of the empirical evidence that has been carried out on the effect of foreign capital inflows on economic growth. With special interests on studies that included FDI, foreign aid and diaspora remittance as measures of foreign capital inflows.

Aurangeb and Haq (2012) investigated the impact of foreign capital inflows on economic growth of Pakistan. The data used in this study were collected from the period of 1981 to 2010. Unit root test confirms the stationary of all variables at first difference. The multiple regression analysis technique was used to identify the significance of different factors. Results indicate that the all three independent variables are having positive and significant relationship with economic growth (GDP). The Granger-Causality test confirms the bidirectional relationship between remittances and external debt, gross domestic product and external debt, foreign direct investment and external debt, and foreign direct investment and remittances. On the other side, the study found unidirectional relationship from gross domestic product to foreign direct investment. It is concluded that the foreign capital inflows are very important for the growth of any economy.

Ramzan and Kiani (2012) in their empirical study, used the Error Correction Methods (ECM) in analysing the relationship between FDI, trade openness and economic growth in Pakistan. The

study employed annual data set covering the period 1975 – 2011, while employing the Augmented Dicky Fuller (ADF) to test for unit root on each of the variables unit. The findings of the s study explained that FDI and trade advance growth of real sector of economy of Pakistan. In a related study, Khan and Khan (2011) empirically studied the nexus between industry-specific Foreign Direct Investment and output over the period 1981-2008. The Granger Causality and Panel Cointegration for Pakistan were utilized. The results revealed that FDI has a positive effect on real output in the long run. Moreover, the result also revealed the evidence of long-run relationship that trend from GDP to FDI. However, in the short run, there was evidence of two-way causality between FDI and gross domestic product.

In a study made up 100 emerging countries by Aizenman, et al. (2013) investigated the relationship between economic growths and lagged international capital flows. They adopted these variables for foreign capital inflows FDI, portfolio investment, equity investment, and short-term debt. The study revealed mixed results with other countries exhibiting a positive relationship, some a negative relationship and while others a null relationship. On the countries that showed a positive relationship Aizenman, et al. (2013) suggest that FDI had a robust and positive relationship with growth rates. This study by Aizenman, et al. (2013) postulate that the relationship between foreign capital inflows and economic growth rates depended on the type of flows used, structure of the economy and patterns in global growth rates.

### 3. Methodology

#### 3.1 Model specification

To investigate the impact of foreign capital inflows and economic growth in South Africa the study used the Vector Error Correction Model (VECM). The method is appropriate since the study was interested in determining both the long-run and short-run relationship between capital flight and economic growth in South Africa.

Since foreign capital inflows are a source of capital stock, this study in investigating the effect of foreign capital inflows on economic growth in South Africa the estimated model was specified as follows;

$$GDP = f(\text{Foreign Capital inflows}) \dots\dots\dots (4.2)$$

Equation (1) shows the functional form of *GDP as a function of foreign capital inflows.*

Rewriting equation (4.2)

$$\text{Log}GDP_t = \beta_1 + \beta_2 \text{Log}FDI + \beta_3 \text{Log}FA_t + \beta_4 \text{Log}DR_t + \mu_t \dots\dots\dots (4.3)$$

Where:

GDP refer to the Gross Domestic Product in year t

FDI refer to the Foreign Direct Investment net inflows in year t

FA refer to gross Foreign Aid in year t

DR refer to Diaspora Remittance in year t.

A log-log model was chosen because of the presence of large values in the variables often running into millions or billions which would make interpretations of the results difficult. Therefore, in order to avoid the results of the study to lose meaning the log-log model was adopted. The model implied that the results can now be interpreted in elasticities which capture the sensitivity of an increase in one unit in of the independent variables to the dependent variables.

### 3.2 Justification of Variables and Data Sources

**Gross Domestic Product:** This variable enters as a measure of economic growth. The preferred measure adopted in this study is the GDP at market prices. This is in accordance with other empirical studies that have used it to represent economic growth (Adams et al. 2017, Kholobudu & Adams, 2016, Chigbu et al. 2015).

**Foreign Direct Investment:** The variable enters the model as an independent variable which represents one of the three foreign capital inflows variables. This study considers net inflows of FDI as given by the World Bank estimates. Again this is in line with other empirical studies (Aizenman et al. 2013 ,Chigbu et al. 2015).

**Foreign Aid:** Like FDI foreign aid enter the model as an indicator for foreign capital inflows. The study considered the net official development assistance that South Africa has received for the period 1970 to 2015. This variable has also been used in similar studies before (Amusa et al. 2016 , Adams, et al. 2017)

**Diaspora Remittances:** Remittances from the diaspora community also enter the model as an indicator for foreign capital inflows since they also improve the socio-economic development in the recipient economies. Again this is in line with other empirical work (Chand 2016, Adams, et al. 2017).

### 3.3 Data sources

This study, used annual time series data from 1970 to 2015 in investigating the effect of foreign capital inflows on economic growth in South Africa. The data of all the variable in this study was retrieved from the World Bank data bank website. This meant that the study used a single data source which, enabled the undesirable use of multiple sources which is often problematic.

## 4. Empirical Results and Discussion

The results of the formal test on unit root testing are presented in the table 5.1 and this used the two most common method of Augmented Dickey- Fuller and Phillips Peron.

Table 4.1 Augmented Dickey Fuller (ADF) and the Phillips Perron unit root test results

Series	Model	ADF Lags	ADF Statistic	PP Bandwidth	PP Statistic	Conclusion & Order of Integration
LogGDP	$\tau_{\tau}$	0	-0.408932	3	-0.594497	Do not reject $H_0$ :
	$\tau_{\mu}$	0	-1.752409	3	-2.084269	Series contains unit root, (= series

Series	Model	ADF Lags	ADF Statistic	PP Bandwidth	PP Statistic	Conclusion & Order of Integration
	$\tau$	0	1.338756	3	0.934225	not stationary),
DLogGDP	$\tau_\tau$	0	- 3.856199***	3	- 3.742924***	Reject $H_0$ : Series
	$\tau_\mu$	0	-3.760636**	3	-3.640446**	contains unit root,
	$\tau$	0	- 3.719995***	3	- 3.638737***	(= it's stationary) <b>I(1)</b>
LogFA	$\tau_\tau$	0	-0.248037	3	0.134623	Do not reject $H_0$ :
	$\tau_\mu$	0	-2.370196	3	-2.197045	Series contains unit root, (= series
	$\tau$	0	0.654545	3	1.184671	not stationary)
DLogFA	$\tau_\tau$	0	- 10.71280***	3	- 10.26968***	Reject $H_0$ : Series
	$\tau_\mu$	0	- 11.21186***	3	- 11.22698***	contains unit root,
	$\tau$	0	- 9.844654***	3	- 9.325373***	(= it's stationary) <b>I(1)</b>
LogDR	$\tau_\tau$	0	0.117387	3	-0.245732	Do not reject $H_0$ :
	$\tau_\mu$	0	-1.511791	3	-1.748374	Series contains unit root, (=series
	$\tau$	0	1.383414	3	0.748698	not stationary)
DLogDR	$\tau_\tau$	0	-3.275353**	3	-3.218451**	Reject $H_0$ : Series
	$\tau_\mu$	0	-3.174929*	3	-3.114885	contains unit root,
	$\tau$	0	- 3.179851***	3	- 3.123176***	(= it's stationary) <b>I(1)</b>
LogFDI	$\tau_\tau$	0	-0.659943	3	-3.152501	Do not reject $H_0$ :
	$\tau_\mu$	0	-2.093471	3	-5.027625	Series contains unit root, (=series
	$\tau$	0	0.024356	3	-2.397931	not stationary)
DLogFDI	$\tau_\tau$	0	- 9.420866***	3	- 12.05310***	



Series	Model	ADF Lags	ADF Statistic	PP Bandwidth	PP Statistic	Conclusion & Order of Integration
	$\tau_{\mu}$	0	- 9.296200***	3	- 11.82369***	Reject $H_0$ : : Series contains unit root, (= it's stationary) <b>I(1)</b>
	$\tau$	0	- 9.527945***	3	- 12.13199***	

$H_0$ : There is unit root

\* mean significant at 10%, \*\* imply significant at both 5% & 10% and

\*\*\* indicate significant at 1%, 5% & 10%.

The results of the formal test show that all the variables in the estimated are stationary at first difference. This is in line with the predictions suggested under visual inspection which also indicated that all the variables were stationary at first difference. The ADF and PP unit root tests outcomes despite slight differences all led to the conclusion that all the variables are integrated of order 1. This results have the following ramifications, since all the variables in the model are integrated of the same order I (1). According to Wooldridge (2014) one of the requirements of the Johanssen cointegration test is that the variables in the model should be integrated of the same order.

#### Johanssen Cointegration

This was carried to test the long run relationship among the variables in the estimated model.

Table 5.3 shows the results of the Johanssen Cointegration test

Table 4.2: Johansen Cointegrating Test

Test	Hypothesized No of CEs	Eigen value	Trace/Max Eigen	5% Critical value	Probability
Trace test	None*	0.625377	66.50719	47.85613	0.0004
	At most 1	0.335526	25.27014	29.79707	0.1520
	At most 2	0.171341	8.102213	15.49471	0.4546
Max Eigen value	None*	0.625377	41.23705	27.58434	0.0005
	At most 1	0.335526	17.16792	21.13162	0.1642
	At most 2	0.171341	7.893778	14.26460	0.3896

Source: Authors Eviews Output

Trace test indicates 1 cointegrating equations at the 5% level

Max-Eigen test indicates 1 cointegrating equation test at the 5% level

- Denotes rejection of the hypothesis at the 5% level.

The above table shows that both the Trace test and Max-Eigen value confirm the presence of one cointegrating equation, thus suggest that there is indeed a long run relationship among the variables in the estimated model. Table 4.3 shows the normalised cointegrating coefficients results of one cointegrating equation.

Table 4.3: Normalised Cointegration Results

Normalized cointegrating coefficients (standard error in parentheses)			
LGDP	LFDI	LFA	LDR
1.000000	0.024623	-0.011994	-0.595292
	(0.00526)	(0.01283)	(0.08709)

Source: Authors Eviews Output

The normalised cointegration based on the table is as follows

$$\text{GDP} - \beta_0 + 0.024623\text{FDI} - 0.011994\text{FA} - 0.595292\text{DR} = 0 \quad (1)$$

Reversing the signs of the estimated coefficients in equation 1 results in

$$\text{GDP} = \beta_0 - 0.024623\text{FDI} + 0.011994\text{FA} + 0.595292\text{DR} \quad (2)$$

The second equation represents the estimated equation. The results of the long run relationship indicate a unit increase in FDI leads to approximately a reduction of 0.0246% in the GDP of South Africa. This result is contrary to the expected priori expectation of positive effect of FDI on GDP, however similar studies have also come up with the same outcome (Kholubudu and Adams 2016 and Aizenman 2013). Okoro and Atan (2014) reckons that FDI might have negative effect on growth basing on the Marist dependency theory which state that foreign investor soaks up local financial resources for their own profits at the expense of domestic economy. However, he further notes that FDI is potent enough to improve the prevailing efficiency in the productive sector, stimulate change for faster economic growth, and create jobs and faster growth.

The results of the study indicate that an increase in one unit of foreign aid will lead to an increase of 0.01199% in the GDP of South Africa. This outcome was in line with the expected priori expectation that a positive relationship exists and supports the empirical work of Chigbu et.al (2015) and Aizenman (2013). Neoclassical growth models emphasise that output is a function of capital stock. Harrod –Domar models also give prominence to the notion that there is a positive relationship between aid and growth. According to Lensink and Morrisey (2001) foreign aid is said to increase investment by providing additional capital resources that can be channeled into investments which in turn leads to an increase in output. Furthermore, the results of the study revealed that a unit increase in diaspora remittance leads to 0.59% increase in the GDP OF South Africa. Again this was in line with the expected priori expectation of a positive relationship between diaspora remittance and gross domestic product. Adams (2017), Kholubudu and Adams (2016)

and Chigbu et .al (2015) in their respective studies also concluded that diaspora remittance had a positive significant effect on economic growth, therefore results of this study supports this assertion since the diaspora remittance in South Africa also have positive effect on economic growth. Hadeen and Yaseen (2012) indicated that the positive effect of remittance on the growth of domestic economy emanates from its ability to provide the funds which will in turn be transmitted to investments via financial institutions. This will imply a significant increase in the financial resources of these financial institutions, hence it will be encouraging these institutions to expand its performance by granting more credit to the companies in their markets for short or long term loans. After determining this long-run relationship among the variables the next test was to short-run relationship between foreign capital inflows and economic growth in South Africa.

#### 5.2.4 Estimated VECM

The vector error correction model was used to show the short-run relationship between the foreign capital inflows (foreign aid, foreign direct investment and diaspora remittance) and economic growth in South Africa.

Table 4.4: VECM Result

Variable	Coefficients	Standard Errors
DGDP	0.0569	-3.7137
D(FA(-1))	1.47686	1.49323
D(DR(-1))	0.11179	0.06202
D(FDI(-1))	6.41736	-2.1373
CointEq 1 (ECT)	- 0.211428	

Source: Authors Eviews Output

Table 5 indicates a short run adjustments coefficients of -0.211428 also referred to as the error correction term. This error correction term (ECT) of -0.211428 measures the speed of adjustment in the model when it falls into disequilibrium from a shock. Thus in case of a shock the estimated model returns back to equilibrium at a rate of 21.1428% each year. Therefore, it entails the model will take between 4 and 5 years to return to equilibrium as a result of a shock. Econometric theory states that it should be negative in order to ensure equilibrium is attained. The ECT denote the short run adjustments towards equilibrium (Asteriou & Hall 2007). Therefore, this VECM results indicated that the speed of adjustment was 21.1428, which imply 21.1428 % of the disequilibrium in the previous year is corrected within one year.

## 5. Conclusion and Recommendations

The chosen variables in this study for foreign capital inflows were foreign direct investment (FDI), foreign aid and diaspora remittance. The results of the study suggested that FDI had a negative

effect on economic growth measured using the gross domestic product (GDP). This outcome implies that FDI leads to approximately a reduction of 0.0246% in the GDP of South Africa. The result is contrary to the expected priori expectation of positive effect of FDI on GDP, however other studies have also come up with the same outcome (Kholubudu and Adams 2016 and Aizenman 2013). This negative effect according to Okoro and Atan (2014) arises Marist dependency theory which state that foreign investor soaks up local financial resources for their own profits at the expense of domestic economy. However, he further notes that FDI is potent enough to stimulate economic growth. Studies that have come up with negative sign indicate that there is threshold level where FDI may start to have a positive effect on the economy. It is also vital to acknowledge that the period understudy was comprised of two pivotal eras in the history of South Africa which were apartheid (1970 -1993) and post-apartheid (1994 to 2015). During apartheid South Africa's foreign direct investment were extremely low as result of sanctions imposed on the colonist, but after apartheid they grew significantly which also they country economy thriving. Therefore, based on these two eras which ultimately affect the effect of FDI on economic growth that were pulling apart might explain this negative effect.

The results of the study indicate foreign aid had a positive effect on economic growth and unlike FDI, the outcome was in line with the expected priori expectation that a positive relationship exist and supports the empirical work of Chigbu et.al (2015) and Aizenman (2013). More precisely the finding of the study suggests that an increase in one unit of foreign aid will lead to an increase of 0.01199% in the GDP of South Africa. This outcome confirms proclamations by Lensink and Morrissey (2001) that foreign aid increase investment by providing additional capital resources that can be channeled into investments which in turn leads to an increase in output. Harrod –Domar models also give importance of foreign aid in stimulating economic growth.

Furthermore, the results show that diaspora remittance had a positive effect on economic growth. Again this was in line with the expected priori expectation of a positive relationship between diaspora remittance and gross domestic product. This also supported the empirical results of Adams (2017), Kholubudu and Adams (2016) and Chigbu et al. (2015) that concluded that diaspora remittance had a positive significant effect on economic growth. Therefore, results of this study imply that diaspora remittance in South Africa also have a positive effect on economic growth. The findings of the study revealed that a unit increase in diaspora remittance leads to 0.59% increase in the GDP OF South Africa. This results on remittance confirms assertions by Hadeen and Yaseen (2012) who argues that remittance have a positive effect on the growth of domestic economy because of their ability to provide additional capital that is transmitted to investments via financial institutions. Thus increase the financial resources financial institutions that will expand performance in the economy through provision of loans to firms in need of more capital. Therefore, thus leans itself in supporting the claims by Neoclassical growth models that emphasise that output is a function of capital stock.

## 5.2 Direction of causality between foreign capital inflows and economic growth in South Africa

Proponents of the positive effect of foreign capital inflows like Summers (2000) argued that enormous social and economic benefits accrue as a result of capital inflows from developed countries to developing countries. He argues that these capital inflows can improve the standard of living in recipient economies by augmenting domestic investment. This thinking goes back to

the work of Gerschenkron (1952) who pointed out that foreign capital flows may be associated with increased efficiency of production, and thus with higher growth rates. However, four schools of thought have emerged on the relationship between foreign capital inflows and economic growth. The results of the Granger causality suggested that the direction of causality between foreign capital inflows variables (foreign aid, diaspora remittance and foreign aid) and economic growth could not be ascertained as in all cases the null hypothesis was upheld. Since the results failed to reject the hypothesis that foreign capital inflows Granger cause economic growth.

### 5.3 Policy Recommendations

In pursuit of goal number eight of the sustainable development goals for decent work and economic growth this section provides policy recommendations of this study on the effect of foreign capital inflows on economic growth in South Africa. The effect of foreign capital inflows on economic growth can never be over emphasized. This study explored this effect of foreign capital inflows on economic growth in South Africa for the period 1970 to 2015 with interesting results as discussed earlier. The results of the study found that foreign aid and diaspora remittance had a positive significant effect on economic growth in South Africa while FDI had a negative insignificant effect with economic growth in South Africa. These results hence confirm the assertions by the Neo-classical growth theorist that give prominence on the effect of capital in stimulating economic growth. The results show that a country like South Africa for its continued growth it requires additional foreign capital to augment limited domestic resources. In the early chapters of this study South Africa low saving culture imply that foreign capital inflows are vital in addressing these saving gaps. Therefore, if South Africa it is to address challenges befalling her economy such as the increasing rate of unemployment, poverty, inequality and slow economic growth it needs these foreign capital inflows. Basing on the results of this study the following recommendations were made to improve the effect of foreign capital inflows on economic growth in South Africa;

- As pointed by Okoro and Atan (2014) that FDI is potent enough to stimulate economic growth, South Africa implement strategies to ensure that it becomes a conducive business environment for foreign investors. Thus government should foster policies that provide macroeconomic stability which is consistent and avoid policy inconsistencies and uncertainty which chase away investors. If South Africa is to attract more foreign capital inflows to stimulate economic growth a stable political and economic environment is essential which is embroiled with policies which are consistent and certainty.
- Foreign capital inflow as shown in the review of literature have a tendency of growing economies. However, it is up to host countries to create an investor friendly environment by providing incentives to foreign investors. Therefore, this study proposes that South Africa offer tax holidays to foreign investors as a way to attract more FDIs. Currently the following incentives are available for foreign investors. The Foreign Investment Grant (FIG) is a compensation grant for qualifying foreign investors on the cost incurred while relocating new machinery and equipment, excluding vehicles to South Africa. Manufacturing Investment Programme (MIP) for local and foreign manufacturers who intend to start a new production plant or expand an existing production facility. The primary goal of the programme is to encourage investment in the manufacturing sector. In addition, there is already a tax allowance incentive programme was established in 2010 to support

Greenfield, which utilises only new manufacturing assets and Brownfield investments that intend to upgrade or expand their industrial facilities. In contrary to these mentioned incentives proposes tax holidays for industries foster industrialisation in the primary sectors of the economy such as agriculture and mining with emphasises being placed on value addition and diversification.

- The positive effect of remittance by the diaspora community on the economic growth implies that South Africa should explore this venture by encouraging its emigrant workers to continue sending money back home through granting of incentives and explore business opportunities with emigrants who might want to invest back home. As such the study proposes a recognition of this important contribution by the diaspora community to the economy hence more engagement programmes or platforms to encourage investments from emigrant workers should be pursued.
- The study also indicated that foreign aids has a positive effect on economic growth in South Africa. Therefore, it is proposed that should measures be put in place to ensure that foreign aid is channeled to productive ends to contribute to economic growth.

## REFERENCES

Adams, S., Khobodu, M. & Lampatey, R. 2017. The Effects of Capital Flows on Economic Growth in Senegal. *The Journal of Applied Economic Research*, 11(2), pp.55 -79.

Adeola, O.O. 2017. Foreign Capital Flows and Economic Growth in Selected Sub-Saharan African Economies. Ph.D. thesis, Stellenbosch, South Africa.

Aizenman, J., Jinjark, Y. & Park, D. 2013. Capital Flows and Economic Growth in the Era of Financial Integration and Crisis, Department of Economics: University of California Working Paper No. 190

Alfaro, L., Kalemli-Ozcan, S. & Volosovych, V. 2011. Sovereigns, Upstream Capital Flows, and Global Imbalances. Cambridge, Massachusetts: National Bureau of Economic Research. Working Paper No. 17396.

Akinlo, A.E. 2004. Foreign Direct Investment and Growth in Nigeria: An Empirical Investigation. *Journal of Policy Modelling*, 26(5), 627-639.

Amuedo-Dorantes, C. & Pozo, S. 2014. Workers' Remittances and the Real Exchange Rate: A Paradox of Gifts. *World Development*, 32(8), 1407-1417.

Amusa, K., Monkam, N. & Viegi, N. 2016. Foreign aid and Foreign direct investment , Pretoria: Economic Research Southern Africa (ERSA). Working Paper No. 594

Aurangeb, G & Haq, A. 2012. Impact of Foreign Capital Inflows on Economic Growth in Pakistan. *European Journal of Economics, Finance and Administrative Sciences* ISSN 1450-2275 Issue 46. [www.eurojournals.com/EJEFAS.htm](http://www.eurojournals.com/EJEFAS.htm).

Asteriou, D. & Hall, S. 2007. *Applied Econometrics*. Revised 2<sup>nd</sup> Edition ed. New York: Palgrave Macmillan.

Baharumshal, A. & Thanoon, M. 2006. Foreign capital flows and economic growth in East Asian countries. *China Economic Review*, 17(1), pp. 70-83.

Barrell, R. & Pain, N. 1997. Foreign Direct Investment, Technological Change, and Economic Growth within Europe\*. *The Economic Journal*, 107(445), 1770-1786.

Boskovska D. 2006. The Role of the Foreign Capital in the Integration Process of Republic of Macedonia. *The Amfiteatru Economic Journal* 8(1), pp.114-121.

Bouoiyour, J. & Miftah, A. 2015. Why do migrants remit? Testing hypotheses for the case of Morocco. *IZA Journal of Migration* 4(2), pp 1-20

Chami, R., Fullenkamp, C. & Jahjah, S. 2005. Are Immigrant Remittance Flows a Source of Capital for Development? International Monetary Fund. *IMF staff papers*, 52(1), pp 55-81.

Chand, M. 2016. Leveraging the Diaspora for Africa's Economic Development. *Journal of African Business*, 17(3), pp. 102 -130

Chenery, H.B. & Strout, A.M. 1966. Foreign Assistance and Economic Development. *The American Economic Review*, 56(4), 679-733.

Chigbu, E., Ubah, C. & Chigbu, U. 2015. Impact of Capital Inflows on Economic Growth of. *International Journal of Management Science and Economics*, 1(7), pp. 7-21.

Chowdhury, M.B. 2011. Remittances Flow and Financial Development in Bangladesh. *Economic Modelling*, 28(6), 2600-2608.

De Mello Jr, Luiz R. 1997. Foreign Direct Investment in Developing Countries and Growth: A Selective Survey. *The Journal of Development Studies*, 34(1), 1-34.

Driffield, N. & Jones, C. 2013. Impact of FDI, ODA and Migrant Remittances on Economic Growth in Developing Countries: A Systems Approach. *The European Journal of Development Research*, 25(2), 173-196.

Edison, H., Levine, R., Ricci, L., & Slok, T. 2002. International financial integration and economic growth. *Journal of International Money and Finance*. 21(1), pp. 749–776.

Edwards, S. 2004. Financial Openness, Sudden Stops and the Current Account Reversal. *American Economic Review*, 94(1), pp. 59-64.

Einchengreen, B. The Cautious Case of Capital Flows. University of California. Berkely. Occasional Paper No 112

Elbadawi, I. & Rocha, R.R. 1992. Determinants of expatriate workers' remittances in North Africa and Europe. Country Economics Department, World Bank.

Fambon, S. 2013. Foreign capital inflow and economic growth in Cameroon. WIDER Working Paper No.2013/124

Fasanya, I.O. & Onakoya, A.B. 2012. Does Foreign Aid Accelerate Economic Growth? An Empirical Analysis for Nigeria. *International Journal of Economics and Financial Issues*, 2(4), pp.423-431.

Fayomi, O., Azuh, D. & Ajayi, L. 2015. The Impacts of Remittances on Nigeria's Economic growth: A study of Nigerian Diasporas in Ghana. *Journal of South African Business Research*, Volume (2015). Article ID 598378. DOI: 10.5171/2015.598378

Giuliano, P. & Ruiz-Arranz, M. 2009. Remittances, Financial Development, and Growth. *Journal of Development Economics*, 90(1), 144-152.



Görg, H. & Greenaway, D. 2004. Much Ado about Nothing? Do Domestic Firms really benefit from Foreign Direct Investment? *The World Bank Research Observer*, 19(2), 171-197.

Henry, M. & Onatski, A. 2010. Set coverage and robust policy- Joint with M. Henry, *Economics Letters* 115, pp. 256- 257.

Johansen, S. 1988. Statistical Analysis of Cointegration Vectors. *Journal of Economic Dynamics*. 30(2), pp. 100 -134

Johansen, S. & Juselius, K. 1990. Maximum Likelihood Estimation and Inference on Cointegration—with Applications to the Demand for Money. *Oxford Bulletin of Economics and Statistics*.52 (2), pp. 169–210.

Kastrati, S.K. 2013.The Effects of Foreign Direct Investment for Hosts Country's Economy.American University of the Middle East. 5(1), pp. 1-13

Kant, C. 1996. *Foreign Direct Investment and Capital Flight*. Princeton Studies in International Finance. No. 80. ISSN 0081-8070; No. 80. ISBN 0-88165-252-0).

Kholobudu, M. & Adams, S. 2016. Capital Flows and Economic Growth in Ghana. *Journal of African Business*, 17(3), pp. 31-45.

Kraay, A. 1998. In search of the macroeconomic effect of capital account liberalization. Unpublished. Washington: World Bank.

Kolawole, B. O. 2013. Foreign assistance and economic growth in Nigeria: The Two-Gap model framework. *American International Journal of Contemporary Research*, 3(10), pp.37-51

Lensink, R. & Morrissey, O. 2001. Foreign direct investment: Flows, volatility and growth in developing countries. *Globalization and Poverty DESG 2001*. 32p, Nottingham.

Lucas, R. 1988. On the Mechanics of Economic development. *Journal of Monetary Economics*, 22(1), pp. 3-42.

Lucas, R. 1990. Why Doesn't Capital Flow from Rich to Poor Countries? *American Economic Review Papers and Proceedings* 80(1), pp. 92–96.

McGillivray, M., Feeny, S., Hermes, N. & Lensink, R. 2006. Controversies over the impact of development aid: it works; it doesn't; it can, but that depends. *Journal of International Development*, 18(7), 1031-1050.

Narayan, S. 2013. Causal Relationship between Foreign Capital Inflows and Economic Growth: Empirical Evidence from India. *International Journal of Economics, Finance and Management*. 2(1), pp.17-33.

Nkoro, E. & Furo, A.O. 2012. Foreign capital inflows and economic growth in Nigeria: An Empirical Approach. *Academic Journal of Interdisciplinary Studies*. 1(2), pp. 23-38

Nkoro, E. & Uko, A. K. 2013. Foreign capital inflows and economic growth in Nigeria: An empirical approach. *Asian Journal of Empirical Research* 2(5), pp.149-161

Obiechina, M.E & Ukeje E.U. 2013. Economic Growth, Capital Flows, Foreign Exchange Rate, Export and Trade Openness in Nigeria. *International Journal of Economics and Management Sciences*. 2(9).pp.1-13.

Orji, A., Uche, A. & Ilori, E. 2014. Foreign Capital Inflows and Growth: An Empirical Analysis of WAMZ Experience. *International Journal of Economics and Financial Issues*, 4(4), pp. 971- 983

Okafor, G., Ugochukwu, S. & Chijindu, E. 2016. Foreign capital inflows and Nigerian economic growth nexus: a toda yamot approach. *European Journal of Accounting, Auditing and Finance Research*, 4(3), pp. 16-26.

Okoro, H. & Atan, J. 2014. Impact of Foreign Direct Investment on Economic Growth in. *International Journal of African and Asian Studies*, 3(1), pp. 131-147

Oyatoye, E.O., Arogundade, K.K., Adebisi, S.O. & Oluwakayode, E.F. 2011. Foreign Direct Investment, Export and Economic Growth in Nigeria. *European Journal of Humanities and Social Sciences*. 1(2), pp.12-28

Prasad, E., Rogoff, K., Wei, S. & Kose, M.A. 2007. Effects of Financial Globalization on Developing Countries: Some Empirical Evidence. International Monetary Fund Occasional Paper No. 220

Prasad, E. S., Rajan, R. G. & Subramanian. A. 2007. Foreign Capital and Economic Growth. *Brookings Papers on Economic Activity*, Spring pp. 153

Ramzan, L. & Kiani, A. K. 2012. Analyzing the relationship between FDI, Trade Openness and Real Output Growth: An ECM Application for Pakistan. *International Journal of Basic and Applied Science*. 1(2), pp. 31-44

Razin, A. and Sadka, E. 2001. Country Risk and Capital Flow Reversals. *Economic Letters*. 72 (1), pp.73–77.

Rebelo, S., 1991. Long-Run Policy Analysis and Long-Run Growth. *Journal of Political Economy*. 12(2), pp.18-38

Robu, R.G.P. 2010. The impact of foreign direct investments on labour productivity: A review of the evidence and implications. *The Romanian Economic Journal*. 36(1), pp.71-89

Romer, P. 1986. The Origins of Endogenous Growth. *Journal of Economic Perspective*, 94(5), pp. 1002-1037.

Solow, R. 1956. A Contribution to the Theory of Growth. *Quartley Journal of Economics*, 70(1), pp. 65-95.

Stevenson, L. 1998. Women and economic development: a focus of entrepreneurship", in Liebenstein, H. and Raey, D. (Eds). *Journal of Development Planning, Entrepreneurship and Economic Development*, United Nations Publication, New York. pp. 113-126

Stiglitz, J.E. 2000. Capital Market Liberalization, Economic Growth, and Instability. *World Development*, 28(6), 1075-1086.

Studenmund, A., 2011. *Using Econometrics: A Practical Guide*. 6 ed. Boston: Pearson.

Summers, Lawrence. 2000. International Financial Crises: Causes, Prevention, and Cures. *American Economic Review Papers and Proceedings* 90(2), pp.1-16.

Wooldridge, J. 2014. *Introduction to Econometrics*. 6 ed. Hampshire: Cengage Learning Emea.