

# FOREIGN DIRECT INVESTMENT RISK IMPLICATION ON EMPLOYMENT IN AN EMERGING ECONOMY

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## Abstract

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This paper analysed the employment risk-effect of foreign direct investment (FDI) inflow in South Africa for the periods 1991 to 2014. The paper is an attempt to contribute to the growing debate on the role of FDI in economic development, but specifically on employment. The paper applied a quantitative method and used time series data from the World Bank development indicators. The ordinary least square (OLS) regression statistics was used to analyse the relationship between FDI and employment in South Africa for 1991 - 2014. Consistent with some previous research findings, results showed that during the period of study, FDI showed a negative relationship with employment - a growth in FDI had a negative effect on local employment by 1.29 percent. The paper thus highlights that if FDI does not received proper strategy, the host country may run the risk of not benefitting economically from FDI. This unexpected result can be attributed to some causes, which include inter alia reduction in domestic productivity because of FDI, the nature of FDI and the host country regulation of FDI. The paper suggests further research on the role of FDI on domestic productivity in South Africa.

**Keywords:** Foreign Direct Investment, Employment, Emerging Market, Productivity

## 1. INTRODUCTION

Research on the role of foreign direct investment (FDI) on economic development is ubiquitous in the literature due to some belief that FDI might propel economic development to higher heights (Cavusgil, Knight, & Riesenberger, 2008; Johnson & Turner, 2006). Amongst these scattered researches, results remain diverse with different findings and conclusions (Temiz and Gökmen, 2014). Whilst some research have found positive relationships between FDI and economic development (Mullen and William, 2005; Yao, 2006;), others have found negative relationship with economic development (Temiz and Gökmen, 2014).

However, the case of FDI and employment is not popular in the literature especially within the South African context; hence, the paper contributes an emerging economy perspective from South Africa to the ongoing research on the link between FDI and economic development, specifically by looking at the employment effect of FDI in South Africa. Therefore, the objective of this paper is to examine if FDI affects employment positively or if it has a negative effect thereby posing a risk to host country's employment.

This paper is organised as follows: it begins with the preceding introduction; this is followed by a presentation of related literature. The next section after the literature is the methodology and analysis; the analysis section presents the data analysis and discusses the findings. The final section of the paper draws conclusions and makes recommendations.

## 2. RELATED LITERATURE

Many literature have affirmed the influence of foreign direct investment in boosting the economic growth of host countries (Girma, Gong and Görg, 2009; Singhal, 2016). Yet research on foreign direct investment have come up with diverse views on host country benefits accruable from FDI (Temiz and Gökmen, 2014). In all these research, many factors have emerged as catalysts of FDI benefits to host countries. For instance, some authors have suggested that the extent of robustness of the economy might influence the gains from FDI (Basnet and Pradhan, 2014). Others have suggested the nature of the market and technological development of the host country economy as factors. Yet other research findings point to the type of ownership of FDI as a factor that determines the productivity of

FDI to the host economy (Blomström, Kokko and Gliberman, 2001).

In their research, Sakyi, Commodore and Opoku (2015) evaluated the long-run effect of foreign direct investment in Ghana's economy with the application of endogenous growth paradigm. The researchers applied the co-integration regression and found that foreign direct investment in Ghana facilitated exports, which in turn resulted in improved economic growth in Ghana. They highlight the need to place emphasis on export oriented foreign direct investment. Another group of researchers expanded the work of Sakyi et al (2015) by looking at an intercontinental study of Middle East and North Africa (MENA) countries' foreign direct investment effect on economic growth. Adopting the panel data fixed, random and dynamic methods, findings from the intercontinental research showed that foreign direct investment into the MENA area has significantly increased the capital stock and thus improved economic growth of the 17 MENA countries studies (Abdouli and Hammami, 2015).

In a contrasting study, Basnet and Pradhan (2014) used the time series model on foreign direct investment and economic growth data from Bangladesh, India, Nepal, Pakistan, and Sri Lanka, the co-integration regression results disclosed that foreign direct investment played no role in the economic growth of the five Asian countries from 1990 to 2010. The research highlighted that FDI effectiveness as a catalyst to economic growth might depend on the magnitude of the incoming FDI and the countries state of economic development (Basnet and Pradhan, 2014).

In another closely related research, Haskel, Pereira, and Slaughter (2007) found that inward growth in FDI increased the productivity of UK domestic firms thereby increasing the job availability. Why has the acclaimed increased growth of FDI to developing countries including Africa not resonated in increased productivity and employment? Research indicates that it depends on the level of country's development, technologically and politically. Therefore, the benefits from FDI inflow is not to be taken as a given; the ability of FDI to yield the fruit of economic growth would depend on *inter alia*, the level of technological advancement of the host country, the human resource development in the host country and the level of corruption in the host country (Park, and Jung, 2016). On the employment effect of FDI, researchers have reasoned that FDI may boost employment if it results in boosting the local production that may enhance exports (Fu and Balasubramanyam, 2005). Whilst examining the role of FDI on employment in Central Europe, Mickiewicz, Radosevic and Varblane, (2000) noted that a diverse FDI increased employment level in Hungary, thus the research recommends that countries should seek for a

diverse aspects of FDI as diversified FDI has higher propensity to increase employment in different sectors. Given the importance of employment in economic growth, this paper examines if FDI into South Africa has had a boost in the country's employment or if it has rather posed a risk to employment. The following section presents the method, data analysis and findings.

### 3. METHOD AND ANALYSIS

The paper adopted a quantitative approach to examine the relationship between FDI and employment level. Secondary data were collected from the archives of the World Bank economic indicators over 24 years, 1991 to 2014 (World Bank 2016a; World Bank, 2016b). The statistical analysis applied the Ordinary Least Square (OLS) linear regression model. Before the regression test, the researcher checked for the stationarity of the time series data. Experts' recommendation is that the first preliminaries in times series data analysis procedure is to test the stationarity of the data because the usage of non-stationery variables could lead to unreliability or spurious conditions in the regression (Kwiatkowski, Phillips, Schmidt, and Shin, 1992; Bierens, 1997; Dickey, and Fuller, 1981, Paparoditis and Politis, 2016). Therefore the researcher relied on previous recommended technique which also have been used by previous researchers to test how stationary the data time series is and to measure the relationship between the depended and independent variables (Paparoditis and Politis, 2016; Das and Khan, 2016 ).

#### The regression model:

$$\gamma = \beta_0 + \beta_1\chi_1 + \varepsilon$$

Where:

$\gamma$  = employment level;  
 $\beta_0$  = regression intercept;  
 $\beta_1$  = regression coefficient;  
 $\chi_1$  = foreign direct investment, and  
 $\varepsilon$  = error representing independent other variables not included in the analysis.

**H0:** there is no significant relationship between FDI in South Africa and employment.

The significance level was tested at an alpha ( $\alpha$ ) of 0.05; therefore a significant relationship is interpreted to exist if P is less than the alpha, that is, if  $P < 0.05$ .

### 4. FINDINGS

Regression result of FDI and Employment in South Africa 1991 to 2014.

Table 1. Summary of regression output

Regression Statistics	
Multiple R	0.223398
R Square	0.049907
Adjusted R Square	0.006721
Standard Error	1.800409
Observations	24

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	3.745907	3.745907	1.155618255	0.29402514
Residual	22	71.31243	3.241474		
Total	23	75.05833			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	41.7278	0.536024	77.84691	2.33639E-28	40.6161572	42.83945	40.61616	42.83945
FDI	-1.3E-10	1.21E-10	-1.075	0.294025136	-3.805E-10	1.21E-10	-3.8E-10	1.21E-10

Findings from the regression analysis in table 1 shows a P value of 0.29, which is greater than the research alpha ( $\alpha$ )  $P > 0.05$ . Since the P value is greater than the alpha, the null hypothesis is therefore accepted. This indicates that within the twenty-four years of analysis of time series data on South Africa's FDI and employment to population ratio, there is no significant positive relationship between the growth of the FDI and employment in South Africa. The regression coefficient on FDI disclosed a negative value of -1.30, which indicates that an increase in FDI over the years of study has negatively affected South Africa's employment by 1.30%. This means that FDI inflow has posed a risk to the growth of local employment than the expected benefit on employment. Figures 1 and 2 also demonstrate how negatively related the FDI and employment has been in South Africa.

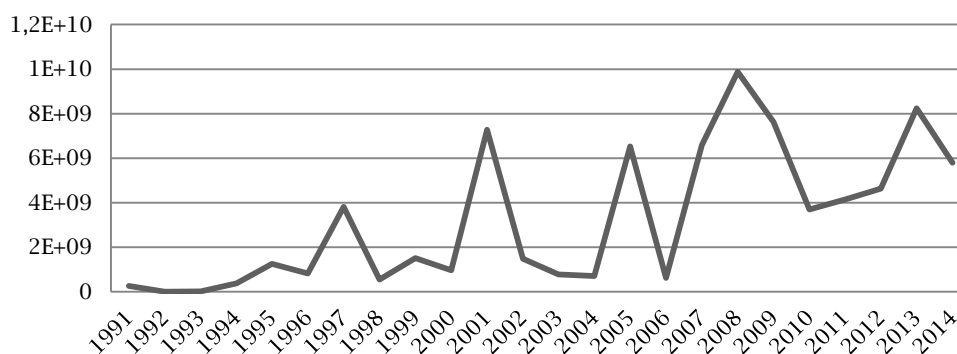
This result appears consistent with previous related research, which studied the effect of foreign direct investment on host country productivity. For instance, according to the research by Aitken and

Harrison, (1999) increase in industry sector foreign ownership leads to a reduction in domestic productivity; they highlight as follows:

*"the results imply that an increase in the share of foreign investment from 0 to 10 percent leads to as much as a 2.67-percentage-point decline in domestic productivity"* (Aitken and Harrison, 1999, p.610).

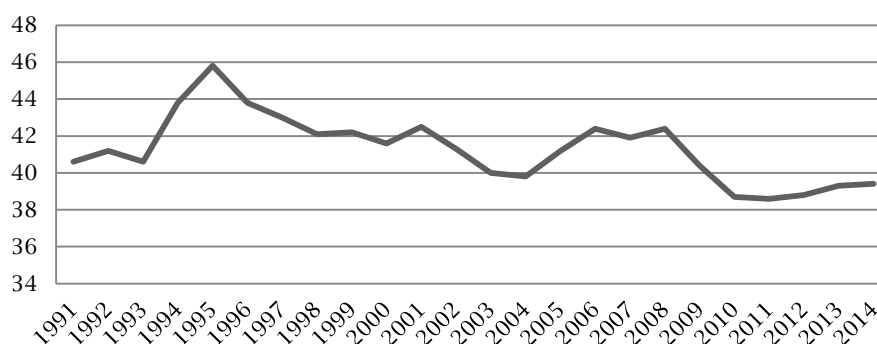
Since a reduction in productivity comes with a reduction in employment, this therefore may imply that a reduction in domestic productivity due to foreign ownership will affect employment negatively, but the foreign ownership holding and the implication on employment in South Africa has not yet been tested. After applying the co-integration and OLS analysis, Temiz and Gökmen (2014) found no significant relationship between FDI inflow into Turkey and GDP growth. In their research on FDI and economic growth in Denmark and Finland, Ericsson and Irandoust (2001) could not find a statistical evidence to support a causal relationship between FDI and economic growth in Denmark and Finland.

Figure 1. Line Chart of South Africa's FDI 1991 - 2014



Source: author's line chart with data from (World Bank 2016a; World Bank, 2016b)

Figure 2. Line Chart of South Africa's Employment to Population 1991 - 2014



Source: author's line chart with data from (World Bank 2016a; World Bank, 2016b)

A closer observation on the line chart on FDI and Employment to population ratio of South Africa (Figures 1 and 2) shows that whilst the employment level responded with a slight correspondence in 1995 with the rise in the FDI in 1995, the trends became divergent in other years with the employment level not responding to the FDI growth. This divergent movement of the variables suggests that either the government economic policies such as the Black Economic Empowerment or the nature of FDI inflow (Ericsson and Irandoust, 2001) has caused negative relationship between FDI and South Africa's employment. The political economy of South Africa has no doubt contributed to jeopardise the positive spin-offs from FDI inflows, according to Tuomi (2011, p. 133) "political and regulatory uncertainty, skills, labor regulation, and exchange volatility" impact investors decisions on foreign direct investment into South Africa. This therefore may warrant that foreign direct investors may invest in a manner that may not yield desired productivity and hence hamper employment spin-off such as employment level.

## 5. LIMITATIONS OF THE PAPER

Similar to any other research, there are limitations inherent in this paper, which other researchers might need to improve upon in subsequent research. Firstly, the time series was limited to 24 years (1991 - 2014). Further research might like to increase the number of time series by adding data before 1991 and after 2014. Secondly, in this analysis, other variables that affect employment was taken care of by the error term ( $\epsilon$ ) only; thus other variables that affect employment was not accessed.

## 6. CONCLUSION

This paper set out to examine whether the growth in FDI in South Africa has positive or negative impact on the employment level. The greatest of the economic problems of South Africa is unemployment but, within the years of study in this paper, it is evident that the unemployment level contrasts sharply with the level of FDI into the country. Whilst it is expected that the increase in FDI into South Africa especially in 2008 and 2013 should spur appreciable growth in employment, the case has not been the same. Accordingly, similar to the findings of other previous research, the paper found no statistical proof that FDI has spurred any growth

in South Africa's employment; rather it found that FDI has had a negative effect on the country's employment level.

Findings from the regression analysis in table 1 revealed a  $P$  value of 0.29, which is far greater than the research alpha ( $\alpha$ ), which means that  $P > 0.05$ . Given that the  $P$  value is far greater than the research alpha of 0.05, the null hypothesis of this research was, therefore accepted. This indicates that within the twenty-four years of analysis of time series data on South Africa's FDI and employment to population ratio, there has been no significant positive relationship between the level of growth in the FDI and employment level in South Africa.

It is likely that the type of foreign direct investment in South Africa may have affected the FDI's inability to raise the employment level significantly especially given that the Black Economic Empowerment policy of the country might tamper with dynamic forces of free foreign direct investment market - this possibility needs to be tested.

The paper recommends that the government should introduce economic incentives such as reduced taxation to enable effective foreign direct investment to thrive in the country - to enhance the productivity effect of FDI on domestic industries, which could thus create employment. Lowering taxation on foreign investors might motivate investors to reinvest their profit into the country rather than repatriating their profits to home countries. Political and economic certainty and stability would assist to attract the much-needed manufacturing FDIs with in-built modern technology that would thus spur export of manufactured goods to lessen South Africa's dependence on export of primary products. Such manufacturing FDIs will give the country the needed employment. Desirable growth-laden economic policies may only ensue if policy makers can eschew political self-interests and show unalloyed commitment to economic growth of the country through non-partisan economic plans and strategies that would reinstall confidence of both the Western and Eastern investors on the country. Given that foreign direct investment into South Africa has not had a significant boost on employment, this paper suggests further research on the role of FDI on domestic productivity in South Africa. Such future research should extend the number of time series beyond twenty-four observations used in this research.

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