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AN ANALYSIS OF THE IMPACT OF FOREIGN DIRECT INVESTMENT INFLOWS ON THE BALANCE OF PAYMENTS OF ZIMBABWE (1981-2013)

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ABSTRACT

The study investigates the impact of foreign direct investment on Zimbabwe's balance of payments for the period 1981-2013. The study utilises a linear model that takes foreign direct investment, the current and capital accounts as explanatory variables, while the balance of payments is the dependant variable. The study found out that foreign direct investment, current and capital accounts have significant influence on the balance of payments of Zimbabwe. The conclusion is that foreign direct investment has a huge impact on the balance of payments. The study recommends the government to create a conducive investment environment to attract foreign direct investment into the domestic industries. It should also aim to make its exports more competitive in the global market through measures such as value addition and generally cheaper prices.

Keywords: Foreign Direct Investments, Balance of Payments, Current Account, Capital Account, Investment, Exports, Unilateral Transfers

Contribution/Originality

This is one of few studies which have investigated the impact of foreign direct investment on the balance of payments of Zimbabwe using ordinary least squares method for a longer period spanning from 1981 to 2013. The study has enabled the assessment of the effect for a period of more than three decades and discovered that for all those years foreign direct investments have been influencing the Zimbabwe's balance of payments.



1. INTRODUCTION

Many countries view foreign direct investment (FDI) as an engine for economic growth. In this case they put in place policy measures favourable for foreign investors to pour funds into their economies so as to boost production to meet their foreign and domestic markets demands.

Zimbabwe has over the years acquired a reputation of unproductive nation of the southern Africa region due to the decline in the economic performance. Statistics available show that FDI, which averaged 14-20% of GDP from 1980-2000, has declined remarkably in the last ten years to the current 1.1% of GDP. Foreign investment inflows were US\$125 million for 2011 and this is less than 1% of the US\$17 billion that was pumped into the SADC region. Zimbabwe is lagging behind in terms of attracting foreign direct investment. This is despite the fact that FDI can be a very huge source on revenue in a dollarized economy such as Zimbabwe. Various reasons have been cited for Zimbabwe's failure to attract meaningful investment including negative perceptions around empowerment laws among others.

However, through the establishment of the Zimbabwe Investment Authority (ZIA) the Zimbabwean government aims at attracting FDI inflows through various means including the Look East Policy, from Asian countries. Zimbabwe has attracted US\$852 million since fresh economic reforms in 2009 and the Ministry of Finance estimates that Zimbabwe will need fresh investment of between \$45billion and \$47 billion just to get back to its peak level of 1997 (Equity ZW, 2012).

Objective of the Study

The objective of this research is to analyse the impact of foreign direct investment on the balance of payments of Zimbabwe (1981-2013).

Theoretical Literature Review

In general FDI means movement of capital between countries either by the private sector or governments. FDI as according to United Nations Conference of Trade and Development (UNCTAD, 2013) is investment done to attain long-term interest in companies operating in an economy different from that of the financier.

Balance of payment (BOP) can be described as a record of all economic transactions of a country with the rest of the world for a given period of time which is usually a year. These transactions take place between a country's residents and its non-residents for all commodities (goods, services and income). The BOP transactions are divided into two - the current account and capital account. The current account accommodates transactions in goods and services, investment income and current transfers. The capital account accommodates financial instruments transactions.

Impact of FDI on Balance of Payments

The impact of FDI has two opposite effects on BOP thus its overall impact is not clear. FDI inflows, on one hand, tend to increase imports of host country since there is demand for capital equipment and intermediate commodities that are unavailable in the host country. On the other hand, increase in national income as a result of the FDI inflow may trigger more imports which have a negative impact on the BOP. On another note FDI inflow can 'crowd in' or 'crowd out' domestic investment depending on circumstances. Generally FDI has a positive impact to an economy though magnitude of its impact is not clear.

Empirical Literature Review

Empirical research point out that FDI tends to increase host country's imports initially mainly due to the fact that much of the FDI inflow is to acquire capital equipment which is mainly imported. Nevertheless, in import substituting



industries concentration of FDI tend to affect imports negatively since goods that were being imported earlier would be now be produced in the host country.

Stoneman (1975) analysed the relationship of FDI and economic growth for developing countries and found that countries with higher stock of capital productivity is promoted by FDI hence improvement in the BOP. Siddiqui D.A and Ahmad M. H (2007) used Johansen-Juselius cointegration technique to investigate the relationship between FDI and current account (CA) in Pakistan. This study revealed that FDI and current account are cointegrated such that they have a consistent long run relationship. This study further show that the causality between FDI and current account is unidirectional as Granger causality test findings reveal. These results therefore imply there may be a deterioration of the BOP in the long run since no short run causality from FDI to current account was found.

Muhammad A. H. (2008) estimated separate import and export models for Bangladesh in order to determine the impact of FDI on BOP. The estimated import demand model revealed that FDI raises imports faster by current inflow than with lag of one year. According to this study a 10% increase in the inflow of FDI increases imports by 1.3%. The estimated export model revealed that FDI with a lag of one year raises exports faster than of that period.

Muhammad A and Balal M, (2012) used time series data to analyse the long-run impact of FDI in real imports and real exports of Pakistan. They utilised the Johansen cointegration technique followed by the Error Correction Model for short run analysis and found that FDI inflows have positive impact on both imports and exports thus a positive effect on BOP. Nguku E. K (2013) carried a study in Kenya to determine the relationship between FDI and BOP using ordinary least squares regression and three separate functions were estimated. This study concluded that FDI do not have significant impact on imports and exports in Kenya.

This empirical evidence shows that FDI positively affect BOP by increasing both imports and exports, as such its effect on the BOP depends on the relative magnitude of the two forces. Countries with a positive effect of FDI inflows on their financial accounts, are more likely to have a positive first round effect on the BOP.

2. MATERIALS AND METHODS

Model specification: A linear model is used to represent determinants of the Zimbabwe's balance of payments. The study indicates that the BOP is a linear function of FDI, Current account, Capital account and the Error Term as shown below.

$$BOP = \beta_0 + \beta_1 FDI + \beta_2 CA + \beta_3 KA + \varepsilon$$

Where: BOP= Balance of Payments, FDI= Foreign Direct Investment, CA =Current Account, KA = Capital Account, β_s = Parameters and ε = error term.

Explanation of variables

Balance of Payments (BOP): It records all economic transactions between residents of one country with the residents of all other nations. Residents include individuals, business, government and international organisations.

Foreign Direct Investments (FDI): FDI involves flows of capital, technology and entrepreneurial skills among other resources to a host country where they are combined with local factors in the production of goods for export and/or the local market.



Current Account (CA): it measures the economy's trade in goods and services with the rest of the world, taking into account unilateral transfers. In other words it records imports and exports of goods and services and unilateral transfers. It measures the net acquisition of foreign assets – the net foreign investment by a country as a whole.

Capital Account (KA): The capital account is where all international capital transfers are recorded. It involves transactions in financial instruments. It registers purchase of foreign stock/bonds and country foreign lending. It is strongly influenced by interest rates, expectations, risk perceptions, exchange rates.

Data Sources: The data used in this study was obtained from: Zimbabwe National Statistics Agency (ZIMSTAT), Zimbabwe Investment Centre (ZIC), Reserve Bank of Zimbabwe (RBZ) and the Zimbabwe's Ministry of Finance

Diagnostic tests

Unit root tests: Time series data may be characterized by challenges of non-stationarity which leads to meaningless results. To test for stationarity, unit roots tests were conducted. The Augmented Dickey–Fuller test was carried out on the data.

Autocorrelation: To check for autocorrelation, the Durbin-Watson (DW) statistic is analysed. The DW statistic measures the linear association between adjacent residuals from a regression model. The DW statistic will be around 2 if there is no serial correlation.

3. RESULTS PRESENTATION AND INTERPRETATION

Diagnostic tests

Table 1: Unit root tests

Variable	ADF-statistic	Critical level	Level of significance	Order of integration
BOP	-5.725070	3.6661	1%	I(0)
FDI	-4.277478	3.6661	1%	I(0)
CA	-2.783506	2.6181	10%	0
KA	-4.695225	-3.6661	1%	I(0)

The table above shows that only the Current Account is stationary in levels. The BOP, FDI and the Capital Account are after first differencing. The absolute values are greater than their respective critical values.

Presentation of Results: After testing the relationship between BOP and the explanatory variables (FDI, Current account and Capital account) the following results were obtained.



Table 2: Results of the Regression Model: Dependent Variable=BOP

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
<i>C</i>	-0.872	0.317	-2.750	0.0103
<i>FDI</i>	0.941	0.034	27.812	0.0000
<i>CA</i>	0.950	0.067	14.204	0.0000
<i>KA</i>	0.944	0.070	13.509	0.0000

R-Squared: 0.9664 and Durbin-Watson Statistic: 1.7264

Given the model, $BOP = \beta_0 + \beta_1 FDI + \beta_2 CA + \beta_3 KA + \varepsilon$, this becomes:

$$BOP = -0.872 + 0.941FDI + 0.950CA + 0.944KA + \varepsilon$$

The BOP has effects that persist over time, and the dynamic model is used to capture for previous and most recent observations of the variables. All coefficients have expected signs. The current BOP is determined by FDI, current account and capital account as shown by the results. The Durbin Watson statistic is 1.7264 and R-Squared is 0.9664.

Explanation of Results: The results suggest a long run relationship between the BOP and its explanatory variables. The three variables are statistically significant in explaining the BOP as this can be deduced from the probabilities in the table above. As such we can conclude that the overall model is statistically significant.

FDI: The BOP and FDI have a positive relationship as indicated by the coefficient of 0.94; theoretically this result is valid since foreign direct investments are payments into the country which are entered as positive numbers in the BOP. The t-statistics for FDI, that is, 27.812 is greater than 2 and this shows that the variable is highly significant as supported by its probability of 0.0000.

CA: A regression coefficient of 0.945 means that one percent increase in current account balance results in about 9.50% increase in the BOP. The BOP theory states that the BOP is an aggregation of several accounts which include the current account. A current account deficit negatively affects the BOP while a surplus positively affects the BOP. This is further explained by the probability of 0.0000.

KA: All things being equal, a regression coefficient of 0.944 means that 10% increase in the capital account results in about 9.44 % increase in the BOP. Like the current account, the capital account is recorded in the BOP as a positive number, therefore the positive coefficient was the expected sign given the theoretical background. The economical meaning to the results is that Zimbabwe is experiencing gains in terms of international capital transfers. Henceforth, for the period under study, the capital account for Zimbabwe is highly significant as supported by the t statistic of 14.204 and a probability of 0.0000.

R squared of 0.966 reflects that the explanatory variables account for about 96.6 % of the variation in the BOP of the Zimbabwean economy over the period studied. The other 3.4 % is explained by other factors not captured by the explanatory variables or which are captured by the error term.



4. CONCLUSION AND RECOMMENDATIONS

Summary: It has been proven that foreign direct investments are vital in explaining BOP. Foreign direct investments still remain low although they are improving and this may be due to the fact that Zimbabwe has serious problems relating to the investment climate.

Both the Current Account and Capital Account have proven to be significant variables in explaining the BOP of Zimbabwe. The positive regression coefficients of these variables indicate that an improvement in their state will therefore also improve the state of the BOP.

Findings and Conclusion of the Study: Foreign direct investments are very crucial in reducing budget deficits in developing countries like Zimbabwe. They are also important since their contribution in the capital account depends on the direction of their flow. As a result they also determine the capital account position of an economy.

The study established a positive correlation between the FDI and the BOP. The increasing BOP deficits between 2000 and 2011 are related to the declines in FDI's under the same period. The study was able to find out the factors influencing the Zimbabwean BOP such as the current account balance. There existed a negative correlation between the BOP and the current account for the Zimbabwean economy for the period under study.

The capital account was also found to have an influence on the BOP in Zimbabwe for the period under study. This is in agreement with literature which postulates that increase in the acquisition of assets by an economy can improve the state of its BOP. A positive relationship was found to exist between the BOP and the capital account. Since it is strongly influenced by interest rate, expectations, risk perception and exchange rate, unstable economic conditions that existed in the economy of Zimbabwe during the period of 2000 to 2010 led to significant levels of deficits in the capital account.

The overall conclusion is that FDI has a huge impact on the BOP of Zimbabwe for the period under study.

Recommendations: Basing on the study findings, the following recommendations were made: The government should create a conducive investment environment to attract FDI into the domestic industries. The domestic investments will compliment the foreign investments and thereby improving the BOP through the increase in economic capitalisation and production.

In order to improve on its current account balance, the government should aim to make its exports more competitive in the global market through measures such as value addition and generally cheaper prices. The government should also work on a strategic plan on how to rehabilitate the country's infrastructure to attract FDIs.

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