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Determinants of foreign direct investment inflows in Swaziland

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This study examined the locational determinants of FDI inflows in Swaziland over the period of 1980 to 2001. The study uses the cointegration and error correction model (ECM) to identify factors influencing FDI inflows. The study revealed that 76% of the variation in FDI is explained by economic openness to foreign trade, infrastructure, internal and external economic stability as well as size and attractiveness of the domestic market of the previous year. FDI inflows is positively influenced by economic stability ($p < 0.05$), infrastructure ($p < 0.01$), internal economic stability ($p < 0.01$), and openness of the economy ($p < 0.05$), but, negatively influenced by attractiveness of the domestic market, and the size of the domestic market ($p < 0.10$ and $p < 0.01$ respectively). The study identified some policy implications which require effective measures. First, policies geared towards more economic openness to foreign trade are required. Secondly, there is a need for the government to continue upgrading the infrastructure and to drive towards successful completion of capital projects like the roads, and factory shells and other infrastructure like sikhuphe airport. On external economic stability a sound macroeconomic stability is advocated intertwined with a flexible and stable exchange rate system is needed to attract FDI. Lastly, the government is advised to formulate policies advocating for the consumption of locally produced goods and services so that the country, while it has a very small consumer base, would have a strong and supportive local market, thus attracting more FDI inflows in to the country.

Key words: Determinants, foreign direct investment, cointegration, error correction model.

INTRODUCTION

The importance of foreign direct investment in developing countries like Swaziland has been viewed as a significant factor to economic growth through capital accumulation and or facilitating the use of new inputs and technologies in the production process. In the early 1980s, Swaziland recorded high economic growth rates, which were the result of an influx of foreign direct investment (FDI) (Collard, 2004). However, in recent years the growth rates have been constantly declining and Swaziland currently faces an economic predicament due to the declining economy (Collard, 2008). After recording an impressive growth rate of 3.5% in 2007, official estimates in 2008 indicated a growth rate of 2.6%. This real GDP growth is lower than the 5% government target for effectively reducing poverty. Economic growth prospects

are clouded by low investments, slow pace of economic reforms, and deterioration of preferential treatment for Swaziland's main exports which includes sugar and textiles. The decline in economic growth in 2008 was a result of the poor performance of the textile industry and the persistent slow growth in foreign direct investment. This poor performance was attributed to the decline in the economies of trading partners as a result of global financial crises (Collard, 2009). The recent global economic meltdown has since resulted in high commodity prices and inflation, slowdown of economic growth. The persistent low growth has pushed up poverty and unemployment, a situation worsened by the prevalence of HIV/AIDS.

Economic growth in less developed countries has been associated with slow rate of poverty reduction and progress towards millennium development goals. Therefore, with the implementation of the millennium action plan, the Government of Swaziland views infrastructure projects as means for increasing job opportunities and economic

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growth, as much as possible. The Swaziland Government intends extending factory shells into all four regions, embarked on rural electrification programme, and other social infrastructure improvements such as the provision of clean drinking water (Collard, 2004). This strategy is intended to improve the investment viability of all four regions and ensure that the benefits of new businesses are spread among the whole country. Considering the amount of FDI in the country and the aggressive strategy taken by the Swaziland Government to attract foreign investments, it becomes imperative to determine the factors contributing to FDI inflows in Swaziland. The central question for this study is what are the macroeconomic factors that have contributed to FDI inflows in Swaziland during the period 1980 to 2001.

The problem

Swaziland experienced increasing foreign direct investment inflows in 2001 and 2002 in the clothing and textile industry, which positively contributed to the growth of the manufacturing sector (Madonsela, 2006). When Swaziland became a member of the AGOA, existing FDIs were retained and new ones were attracted. Particularly in the textile and garments industry. However, this was short lived as FDIs levels started declining in 2004.

Swaziland's economic performance has been declining since 1990s and the growth rate of Gross Domestic Product (GDP) fell from 8% in 1980s to 4% in 1990. Since then, the growth rate has declined further. Official estimates indicate that the real GDP in 2004 was 2.1 and 2.6% in 2007. Given the estimated population growth rate of 2.9%, the economic growth rate is deteriorating. The downward trend in economic performance in 2004 is a reflection of the low growth rate in FDIs, weak performance in the manufacturing sector and low agricultural productivity (Madonsela, 2006; Collard, 2008).

Objectives

The main objective of the study was to identify the major locational determinants of FDI inflows in Swaziland. The specific objectives of the study were to:

1. Identify locational determinants of FDI inflows into Swaziland.
2. Identify policy initiatives for improving FDI inflows in Swaziland.

Limitations of the study

As with all empirical research there are important limitations with this study. This study did not consider institutional factors such as governance and economic reform matters. Thus the study has not included other critical factors to foreign direct investment like political

risk index, the rule of law, and risk of government reputation on contracts. These were left out because data required for such variables were not available and where available, they were inconsistently recorded.

THEORETICAL FRAMEWORK

Importance of foreign direct investment

Foreign Direct Investment (FDI) is defined as international interest in which a resident in one country obtains a lasting interest in an enterprise resident in another country. It is a situation where a foreign country creates a subsidiary to provide goods and services (Makola, 2003). Thus a firm undertakes FDI in a foreign market if it possesses an ownership advantage over the local competitors (Makola, 2003). According to the International Monetary Fund (IMF) and Organisation for Economic Corporation and Development (OECD) definitions, direct investment reflects the aim of obtaining a lasting interest by a resident entity of one economy (direct investor) in an enterprise that is resident in another economy (the direct investment enterprise). FDI represents the primary means of transfer of private capital (physical or financial), technology, personnel and access to brand names and marketing advantage (Makola, 2003).

Golub (2003) defines FDI as a form of international economic integration that brings gains to both parties according to the principle of comparative advantage. In contrast to international trade which involves arms' length transactions, FDI involves intra-firm trade and transactions in intangible assets such as knowledge and reputation. Beyond the standard gains from trade, FDI inflows can provide dynamic gains from technology transfer and skill-building (Golub, 2003). FDI enables the host country to participate in various networks such as sales and procurement networks of foreign investors (Urata and Kawai, 2000). Through established international networks, host countries are not only able to expand their exports but they are also able to import high quality parts and materials, which in turn would improve productivity in the host countries.

Host countries argue that FDI is better than borrowing abroad because when the business is bad, profits will not be available for repatriation. However, the concern would be that resources may be understated or overstated. In most countries, FDI serves as one of the engines of successful transition. To a certain degree, counter-intuitively, most FDIs have market-seeking and efficiency seeking motives.

FDI is considered an important driver of economic growth by the countries of Organisation for Economic Corporation and Development (OECD). FDI can be measured by financial investment flows and or stocks. The coverage of the two measures differs, because FDI flows and stocks conventionally relate to ownership of 10% or more of the shares or voting power in an enterprise.

Research has shown that the most important factor in reducing poverty is the provision of employment, especially formal-sector employment (Golub, 2003). Insufficient job opportunities are the result of inadequate levels of investment, both domestic and foreign. Low investment also makes other forms of poverty alleviation strategies more difficult, for example if the rate of economic growth is below the rate of population growth, that means in each year more people will be added to the ranks of the poor (Golub, 2003). Foreign investment is needed to reduce the gap between desired gross domestic investment and domestic savings. Long-term capital inflows, whether direct investment or long-term loan and portfolio capital, are evidently desirable. Often FDI is attracted to those developing countries where there is a surplus of low-cost labour, as well as a labour force that is highly skilled and literate. Borensztein et al. (1998) found that FDI increases economic growth when the level of education in the host country is high. Moreover, FDI appears to be a key source of employment for women in developing countries, especially in the textile industry.

There is a concern that while FDI brings with it knowledge, superior technology, and new innovations, most of these are not suitable for use in labour-abundant developing countries. Capital-intensive FDI may fail to create many jobs. According to Jenkins (1986) a study of subsidiaries of multinational corporations in South Africa revealed a tendency for foreign firms to adopt an increasingly capital-intensive mode of production, using technologies developed abroad. The reasons given for this trend were (i) increased efficiency; (ii) lower unit costs; (iii) a shortage of skilled labour and therefore a need to use labour-saving techniques; (iv) reduced dependence on increasingly expensive and militant labour; (v) the lack of alternative production methods (in new industries or for new products); (vi) a tendency for the parent company and its subsidiaries to use uniform production techniques all over the world; and (vii) the need to preserve international standards of quality.

Determinants of foreign direct investment

The theory of the determinants of private investment is relevant for an understanding of what drives FDI. This has become important with the globalisation of world markets, although there are still additional factors which may inhibit or encourage FDI that would not affect domestic investment. Much research on the determinants of investment is based on the neoclassical theory of optimal capital accumulation pioneered by Jorgenson (1971). In this framework, a firm's desired capital stock is determined by factor prices and technology, assuming profit maximisation, perfect competition and neoclassical production functions. This theory is an alternative to the view that fixed capital investment depends on the firms' expectations of demand relative to existing capacity and

on their ability to generate investment funds (Fazzari and Athey, 1987).

Some studies disagree with the neoclassical assumption that any desired investment project can be financed (Greenwald et al., 1984). They argue that asymmetric information about the quality of a loan could lead to credit rationing, implying that not all borrowers seeking loans at the prevailing cost of capital may be able to obtain financing. Consequently, firms tend to rely on internal sources of funds to finance investment, and to prefer debt to equity if external financing is required. Irreversibility and uncertainty explains the delays in irreversible investment expenditure, in explaining investment behaviour and how they can affect the decision to invest (Pindyck, 1991). Firms have an incentive to postpone irreversible investment, while they wait for more information.

Other studies report the effects of changes in the real exchange rate and the terms of trade on investment. These studies found that the variability of the real exchange rate is usually more of a disincentive for investment than is the level (Serven and Solimano, 1993). Faruqee (1992) challenged this finding for Sub-Saharan Africa, and argue that the level of the real exchange rate is significantly correlated with private investment. Oshikoya (1994) found that the effect of terms-of-trade is important for middle-income African countries, but not for low-income countries.

Dunning (1993) proposed two schools of thoughts regarding determinants of FDIs: Location-specific advantages offered by a host country include access to local and regional markets, availability of comparatively cheap factors of production, competitive transportation and communications costs, the opportunity to circumvent import restrictions, and investment incentives offered by the host country. He argues that three types of advantage must exist for a firm to engage in FDI and these are: ownership-specific, location-specific, and internalisation-incentive advantages. Dunning (1993) identifies four main categories of motivation for investment abroad by multinational enterprises from industrialised countries: resource-seeking, market-seeking, efficiency-seeking and strategic asset- or capability-seeking. A firm may be influenced by more than one of these considerations, and the motivations for foreign production may change over time. Resource-seeking investors will locate subsidiaries abroad to secure a more stable or cheaper supply of inputs, generally raw materials and energy sources, but also factors of production. The objective is to lower production costs and enhance competitiveness in domestic as well as foreign markets. Market-seeking investors attempt to defend market positions already established through exporting, or opening new markets for their goods and services in the host country and/or neighbouring countries (Dunning, 1993).

Asiedu (2002) found that not only is there a variation in the factors determining FDI inflows but different studies yield conflicting results with respect to the direction of the

influence by the same factor. For instance, Asiedu noted that GDP per capita was found to have a positive relationship with FDI in Schneider and Fry (1985) while Tsai (1994) found a negative relationship with FDI. Part of the reason for these different findings is that this variable can capture different effects. It can act as a proxy for returns on capital, based on the assumption that higher returns are available in poorer countries, with the implication that GDP per capita is inversely related to FDI. Alternatively, higher GDP per capita can imply better prospects for FDI in the case of market-seeking investment.

Asiedu (2002) found that four differences in the factors influencing FDI. First, geographical location is an explanatory factor in low levels of FDI to Sub Saharan Africa. Second, higher returns on capital attract FDI flows to other developing countries but do not have a significant impact on FDI to Africa. Asiedu reason was because the investment environment is more risky in Africa. Third, openness to trade has less impact on FDI in Africa than in other developing countries, and African countries have received lower levels of FDI in part because they are less open to trade. Asiedu (2002) suggests that trade liberalisation may be less effective in Africa, possibly because investors do not believe trade reform is credible. Finally, infrastructure development does not have a significant impact on FDI to Africa but encourages FDI to other developing countries. One explanation for this is the importance of natural resource investment in Africa; this type of investment is less dependent on existing infrastructure (Asiedu, 2002)

RESEARCH METHODOLOGY

Research design

The study utilized a descriptive research design with time series data from 1980-2001. Data were obtained from the Central Statistics Office (CSO) and the Central Bank of Swaziland. The data included quarterly observations of foreign direct investment inflows stock, gross domestic product, exports and imports, government recurrent expenditure as well as interest rates particularly discounting rate and exchange rates.

Model and variables

There are many variables that are essential in explaining FDI inflows in developing countries (Dunning, 1993). However, it is not possible to include all of them. The variables in this study were chosen because of their importance especially in Swaziland and availability of data. The economic model is specified as:

$$FDI = f(Y, X/M, I, DY, EX, R) \quad (1)$$

Which states that foreign direct investment (FDI) is influenced by the size of domestic market (Y), openness of the economy to foreign trade (X/M), infrastructure of the host country (I), attractiveness of the domestic market (DY), external economic stability (EX) and internal economic stability (R). Economic theory suggest that there is a positive relationship between FDI and Y, X/M, I and DY, while a negative relationship is expected between FDI and EX

and R. The Larger the size of the market, the higher the demand for products and services to be provided by FDI. The attractiveness of the domestic market means that an economy without trade restrictions would attract more FDIs into the country. Foreign investors would prefer a country with well infrastructure, which will facilitate transportation, communication and distribution. However, external and internal economic instability would have a negative effect on FDI as businesses require a safe and reliable environment to invest.

The locational determinants of foreign direct investment inflows in Swaziland are estimated using the following equation:

$$FDI_t = \beta_0 + \beta_1 I_{t-1} + \beta_2 Y_{t-1} + \beta_3 [X/M]_{t-1} + \beta_4 DY_{t-1} + \beta_5 EX_{t-1} + \beta_6 R_{t-1} + u_t \quad (2)$$

Where; FDI_t , represents the total foreign direct investment stock in Swaziland at time, t. FDI stock is preferred because it is the only measure that can actually capture the exact amount of foreign capital flowing into Swaziland at any given time.

According to Guerin and Manocchi (2007), FDI stock have captured precisely the amount of foreign capital flowing to economies over the years, after considering the designated economies and having found that they satisfy their criterion.

β_0 , is the intercept. It measures the elasticity of FDIs. The data were converted to natural logarithms so that the coefficients can be interpreted as short and long run elasticities; I_{t-1} , is the relative infrastructure of Swaziland lagged by a year. Infrastructure of the host country (I) is approximated by the share of energy, transportation and communication expenditures in government recurrent expenditure. It is lagged by a year because it is believed that the foreign investor would actually observe the preceding year's share of communication, transportation, and energy expenditures of the government (Dunning, 1984); Y_{t-1} , is the market size, lagged by a year. It is proxied by the real gross domestic product (real GDP). It is lagged by a year because FDIs tend to come into an economy based on the previous years' domestic consumption figures (Woodward, 1992); $[X-M]_{t-1}$, is the openness of the economy to foreign trade, lagged by a year. This variable is measured by the ratio of exports to imports. It is lagged by a year because investors tend to come into an economy based on the ratio of exports to imports of the previous year (Dunning, 1984); DY_{t-1} , is the attractiveness of the domestic market lagged by a year. It is measured by the growth rate of real GDP and lagged because the foreign investors tend to ascertain whether the domestic market is attractive or not based on the growth rate of the real GDP for the previous year (Wheeler and Moody, 1992); EX_{t-1} , is an indicator of external economic stability also lagged by a year. This variable is proxied by the appreciation or depreciation of the local currency. For that purpose we use the exchange rate of the lilangeni (E) against the US dollar (\$) of which it is the major currency used when Swaziland is trading with her trading partners. An appreciation in the local currency denotes higher external economic stability and results in a negative FDI (Wheeler and Moody, 1992); R_{t-1} , internal economic stability, lagged by a year. This is proxied using the cost of capital. This variable is expected to impact positively on the user cost of capital in the host country economy and to affect profitability of FDI inflows negatively, thus acting as an FDI deterrent (Erdal, 2003).

Data analysis

The analysis was conducted using Econometric Views (E. views) software. The data were tested for heteroscedasticity, using the white heteroskedasticity test, and the weighted least squares were used to correct for heteroscedasticity. This procedure according to Gujarati (1995) is devised such that it allocates more weight to

Table 1. Cointegration test results

Variables	Specification	Order of integration	DF statistic
Residuals	Constant	0	-3.82 (-3.51)*
	Constant and trend	0	-5.58 (-4.07)*
	Neither	0	3.08 (-2.59)*

Note: numbers in brackets are MacKinnon critical values for rejection of hypothesis of a unit root 1 or 0 shows the order of integration. Δ = first difference, * = significant at the 1% level.

observations with less variability than those with higher variability, therefore producing estimates that satisfy the assumptions of the classical linear regressions. The weighted data were then used to run the regression.

EMPIRICAL RESULTS AND DISCUSSION

Stationarity and integration tests

According to Granger (1986), stationarity tests are the pre-tests for avoiding spurious regressions. They are the starting point in any cointegration analysis as well as estimation of error correction models. A series is said to be integrated if it accumulates past effects, so that following perturbation the series does not return to any particular "mean" value, hence is non-stationary. Since such a series is non stationary, the order of integration is therefore determined by the number of times it has to be differenced to attain stationarity. If two or more series are integrated of the same order, there exists the possibility to estimate a linear relationship between them (Engle and Granger, 1987). In this study, the Dickey Fuller (DF) test was used to test for unit roots.

The results show that all the variables, except for the attractiveness of the domestic market (DY) and external economic stability (EX) are non stationary. A variable is stationary if the DF statistic is greater than the Mackinnon critical value for rejection of hypothesis for unit root, which is presented in the parenthesis in Appendix 1. For DY and EX the null hypothesis for unit root is rejected.

The other variables are not stationary because the DF statistic is smaller than the Mackinnon critical value for rejection of hypothesis for unit roots and therefore had to be differenced to make them stationary. This means that the null hypothesis for unit root is not rejected for these variables, as shown in Appendix 1.

The infrastructure, openness of the economy to foreign trade, size of the domestic market, and internal economic stability are all integrated of order one, I(1) meaning they had to be differenced once for them to attain stationarity, as indicated by Δ followed by the name of the variable in Table 1. Attractiveness of the domestic market (DY), and external economic stability (R), are integrated of order

zero that is, I (0), as shown in Appendix 1.

Cointegration

After determining the order of integration of the variables, the next step is to determine whether there is cointegration between the variables. This is to establish if the linear relationship of the variables is stationary. If the null hypothesis of no cointegration is rejected then the linear combination of the variables is stationary, hence a non spurious long-run relationship exists between the variables and as such consistent estimates of the long-run elasticities are evident (Alemu et al., 2003).

To test for cointegration between these variables, the Engle-Granger residual based approach was employed. According to Engle-Granger (1987) when two non stationary series are integrated, each reveals a tendency to converge systematically in the long-run even though they may drift apart in the short-run. The test assumes that all the variables are I (1) in the long-run equation. The test is said to be a single equation-approach and it entails determining whether the residuals from the regression are stationary (that is integrated of order zero, I (0)) or not. The test is particularly appealing because it uses the same DF test used to establish the time series properties of the levels and differences of the variables (Schimmelpfeng et al, 1996). Results from the cointegration analysis are presented in Table 1.

The results show that there is cointegration relationship between the variables, which means that the null hypothesis of no cointegration is rejected. This is because the residuals from the regression are stationary that is, I (0). This is in line with economic theory since some variables, namely ΔLogY , $\Delta\text{LogX/M}$, ΔLogR , and ΔLogI are I (1) and logDY and LogEX on the other hand is I (0). According to Schimmelpfeng et al (1996), including a variable that is already I (0) cannot rule out the existence of the desired relationship.

Since cointegration has been confirmed between the variables, by economic theory, it is justifiable to estimate not only the co-integrating relationship but also the dynamic relationship which incorporates the equilibrium and

Table 2. Error correction model results.

Variable	Short-run	Long-run
Constant	7.17 (13.96) ***	9.12 (23.9) ***
DY	-0.024 (2.41) *	-0.033(2.61) *
EX	0.012 (3.33) **	0.014 (4.33) **
ΔI	0.099(7.93) ***	0.147 (8.93) ***
ΔR	0.011 (4.47) **	0.018 (5.74) **
$\Delta X/M$	0.133 (11.9) ***	0.177 (9.97) ***
ΔY	-0.053 (10.2) ***	-0.076 (9.21) ***
Residuals (-1)	-0.125 (7.58) ***	
R ²	0.76	0.78
F-statistic	5.29	7.99
Durbin-Watson statistics	1.74	2.21

Note: figures in brackets are t-ratios; Δ indicates that variables were differenced to attain stationarity. * = significant at 10%, ** = significant at 5%, *** = significant at 1%. Durbin-Watson critical value is 2.

how the short-run adjustments to that equilibrium are made.

Error-correction model

The results in Table 2 reveal that Foreign Direct Investment inflow to Swaziland is positively influenced by external economic stability ($p < 0.05$), infrastructure in Swaziland ($p < 0.01$), internal economic stability ($p < 0.05$), and the openness of the Swazi economy to foreign trade ($p < 0.01$). These variables have the expected signs. However, the FDI inflow is negatively influenced by attractiveness of the domestic market ($p < 0.10$), and the size of the domestic market ($p < 0.01$).

The residuals in the short-run equation give the proportion of the deviation from long-run equilibrium which is eliminated yearly. This study indicates that about 12.5% of the deviation of FDI stock from the equilibrium mean is eliminated annually in this relationship. The variables in the model jointly explain about 76% of the annual variations in FDI stock in the short run.

The results show that the response of FDI to infrastructure in Swaziland was about 0.099. This means that a 10% increase in infrastructure would lead to a 0.9% increase in FDI stock. The openness of the economy to foreign trade effect a response in FDI stock of about 0.133, meaning that a 10% increase in the openness of the economy would lead to a 1.33% increase in FDI inflows, whilst a 10% increase in external economic stability and internal economic stability would lead to 0.12 and 0.11% increase in FDI inflows respectively.

The results also show that the response of FDI inflows to attractiveness of the domestic market and size of the domestic market is negatively related to FDI inflows (-0.024 and -0.053 respectively). This implies 10% increase in attractiveness and size of the Swazi market results in a reduction in FDI inflows by 0.24 and 0.53%

respectively. This is however against our priori expectation and economic theory, that these would have a positive relationship with FDI.

Table 2 also presents the long-run response of FDI inflows. In the long-run, external economic stability, infrastructure of Swaziland, internal economic stability, and the openness of the Swazi economy to foreign trade have the desired signs. They positively affect the variations in FDI inflows. In the long-run, the variables in the model jointly explain 78% of the variation in the amount of FDI stock in Swaziland. The rate of adjustment towards the long-run equilibrium was found to be 12.5%. In the long-run, the response of FDI inflows to infrastructure and openness of the economy was 0.147 and 0.177, respectively. While the response of FDI inflows to external economic stability, and internal economic stability was 0.014 and 0.018 respectively. This means that 10% increase in infrastructure, openness of the economy, external economic stability and internal economic stability would result to 1.47, 1.77, 0.14 and 0.18% increase in the amount of FDI stock respectively in the long run. However the results show that 10% increase in the size of the domestic market and attractiveness of the domestic market would result in a decline of 0.76 and 0.33% respectively.

From the results it is evident that FDI inflows response is inelastic in both the short-run and long-run. A unit increase in a particular factor leads to a less than a unit increase in FDI inflows. This may be due to a number of other factors that were not covered in this study.

Conclusions

The study has shown that FDI inflows in Swaziland is determined by openness of the Swazi economy to foreign trade. However, an open economy alone is not enough for foreign investors to locate and expand their operations

in Swaziland. According to the findings, good infrastructure is important in order to attract FDI. Infrastructure does not only enables investors to export the goods and services they produce easily, but also enables them to efficiently source for raw materials. Good infrastructure entails good communication system, relatively inexpensive electricity and gas, as well as good roads system interconnecting the industrial area with ports, railway stations, and airports that are of acceptable standards.

Implications

The findings of the study implies that the Swaziland Government needs to consider a policy that allows other countries to trade with Swaziland without any restrictions particularly in the domain of the manufacturing sector. Although international trade is sometimes regarded as a hindrance to growth and survival of small local industries, it is however argued that it is imported for the country to improve its foreign direct investment stock. A policy geared towards economic openness is vital. Local entrepreneurs through the Swaziland Investment Authority should be encouraged to source foreign firms and partner up with them in an endeavour to improve the total FDI stock in Swaziland.

Finally the completion of the millennium development goals (MDGs), will not only see Swaziland being victorious in the competition for FDIs, but will enable the country to reap the benefits enshrined in the MDGs and promotion of FDI. The Swaziland government is advised to formulate policies advocating for the consumption of locally produced goods and services so that the country, while it has a very small consumer base, would have a strong and supportive local market, thus attracting more FDI inflows to the country.

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Appendix**Appendix 1.** DF (Unit roots) results after differencing nonstationary variables.

Variables	Specification	Order of integration	DF statistic
ΔLogFDI	Constant	1	-5.32 (-3.65)*
	Constant and trend	1	-5.28 (-4.07)*
	Neither	1	-8.76 (-2.64)*
$\Delta \text{LogI}(-1)$	Constant	1	-4.44 (-3.51)*
	Constant and trend	1	-5.47 (-4.07)*
	Neither	1	-5.39 (-2.59)*
$\Delta \text{LogR}(-1)$	Constant	1	-7.70 (-3.51)*
	Constant and trend	1	-7.64 (-4.07)*
	Neither	1	-7.74(-2.59)*
$\Delta \text{LogX/M}(-1)$	Constant	1	-11.47 (-3.51)*
	Constant and trend	1	-11.39 (-4.07)*
	Neither	1	-11.52 (-2.59)*
$\Delta \text{LogY}(-1)$	Constant	1	-6.65 (-3.51)*
	Constant and trend	1	-6.65 (-4.07)*
	Neither	1	-5.16(-2.59)*
$\text{LogDY}(-1)$	Constant	0	-5.05 (-3.51)*
	Constant and trend	0	-5.14 (-4.07)*
	Neither	0	-2.66 (-2.60)*
$\text{LogEX}(-1)$	Constant	0	-5.28 (-3.51)*
	Constant and trend	0	-5.47 (-4.07)*
	Neither	0	-5.17 (-2.59)*

Note: numbers in brackets are MacKinnon critical values for rejection of hypothesis of a unit root. 1 or 0 shows order of integration. Δ = first difference, * = significant at the 1% level.