FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH IN MAURITIUS: EVIDENCE FROM BOUNDS TEST COINTEGRATION

Myriam Blin & Bazoumana Ouattara

ABSTRACT. This paper investigates whether foreign direct investment enhances economic growth in Mauritius using time series data for the period 1975-2000. Domestic private investment and public investment are also utilized to estimate a neoclassical production function in the long run as well as in the short run. The long run results, based on the newly developed autoregressive distributed lag (ARDL) bounds test approach to cointegration, indicate that foreign direct investment exerts a highly significant positive impact on economic growth in Mauritius. As for domestic investments, private investment shows positive and highly significant impact, whilst the effect of public investment is positive but only significant at the 10 percent level. The main policy recommendation of this paper is that Mauritius should continue to attract FDI and at the same time promote policies that would further encourage private investment.

JEL Classification: C22; E22; F21; F23.
Keywords: Mauritius; Public Investment; Private Investment; FDI; Cointegration.

RÉSUMÉ. Cet article examine dans quelle mesure l’investissement direct étranger (IDE) stimule la croissance dans le cas de l’Île Maurice, en utilisant les séries disponibles pour la période 1975-2000. L’investissement national, privé et public, est aussi intégré à l’estimation d’une fonction de production néoclassique, à long terme comme à court terme. Les résultats à long terme, qui découlent de tests basés sur l’estimation de modèles à retards échelonnés autorégressifs dans le cadre de l’approche de la cointégration, montrent que l’IDE a un effet positif très significatif sur la croissance de l’Île Maurice. Concernant l’investissement national, on trouve aussi un résultat positif et très significatif pour l’investissement privé, alors que l’effet de l’investissement public est positif mais significatif seulement au seuil statistique de 10%. La principale recommandation qui se dégage de cet article est que l’Île Maurice doit continuer à favoriser l’IDE, et parallèlement, prendre des mesures de politique économique qui encouragent l’investissement privé.

Classification JEL : C22; E22; F21; F23.
Mots-clefs : Île Maurice ; investissement public ; investissement privé ; IDE ; cointégration.

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1. Introduction

Foreign Direct Investment (FDI) from Multinational Corporations (MNCs) is considered as one of the main channel for the acquisition of technology and knowledge by Less Developed Countries (LDCs). Therefore, it has often been argued that FDI was growth-enhancing for the host country. However, there is in fact no consensus as to the relationship between FDI and economic growth.

FDI is thought to be growth-enhancing mainly through the capital, technology and know-how that it brings into the recipient country. By transferring knowledge, FDI increases the existing stock of knowledge in the host country through labour training, transfer of skills, and the transfer of new managerial and organizational practice. FDI also promotes the use of more advance technologies by domestic firms through capital accumulation in the domestic country (de Mello, 1997, 1999). Finally, FDI is thought to open up export markets and to promote domestic investments through the technological spillovers and the resulting productivity increase.

However, it has also been argued that FDI and the attached technology transfer may be costly for the host country. For example, MNCs’ capital contribution can be greatly reduced by their tendency to repatriate profits. Stewart (1981, 1984) argued that the technology transferred by MNCs was likely to be inappropriate for the LDCs resource and factor endowments, including human capital. She also argued that by bringing in inappropriate products, FDI might affect the social and cultural norms of the host country. Ram and Zhang (2002) pointed out that FDI is also thought to affect negatively domestic enterprise as the latter will struggle to compete with the powerful MNCs, which could affect domestic investment negatively.

The empirical evidence on FDI and growth nexus suggests that overall FDI has a positive impact on the economic growth of LDCs, however this relationship is dependent on initial conditions of the host country. These conditions include: export orientation, human capital endowment threshold, threshold level of income, absorptive capacity, and the degree of complementarity and substitutability between FDI and domestic investment.²

The present paper contributes to the above mentioned literature by looking at the FDI-growth relationship in the context of Mauritius during the 1975-2000 period. It has been argued that despite a relatively low level of FDI inflow, the latter played a crucial role in the economic success of Mauritius (Wignaraja, 2001; UNCTAD, 2001). Yet, there is no empirical evidence to support that argument.

Given the importance of private domestic investment in Mauritius, the paper also looks at the differential impact of private and public investment on economic growth. To explore these relationships we utilize a new growth theory inspired model, which endogenises human capital. On the methodological front, we use the ARDL bounds test approach to cointegration proposed by Pesaran et al. (2001).

² Evidence of this can be found in Balasubramanyan et al. (1996, 1999), Blomstrom et al. (1992), Borensztein et al. (1995), and de Mello (1999).
The remaining discussion is organized into four sections. Section 2 provides an overview of the structure and evolution of investments in Mauritius between 1975 and 2000. We explore the role played by domestic and foreign investment and look at whether FDI policies in Mauritius have been conducive to inward-FDI. Section 3 presents the model, outlines the methodology and discusses the data. In Section 4 we provide the empirical results. Concluding remarks and policy implications are left to Section 5.

2. Mauritius: Some Facts

2.1 FDI in Mauritius

Mauritius, a small island economy of the Indian Ocean, has witnessed an incredible development in the last 30 years. The driving force of Mauritius’ development has been its exports sectors, namely the sugar sector, tourism and the Export Processing Zone (EPZ). The relatively dynamic financial sector has also played a crucial role in the development process. These sectors have all benefited from both domestic and foreign investments throughout their development.

It is only from the mid-1980s that foreign direct investment (FDI) started entering Mauritius significantly, mostly in the EPZ and in tourism. In fact, the proportion of FDI to gross domestic investment (GDI) remained quite low throughout the 1980s, representing 6 per cent of GDI in its peak year (Figure 1). However, UNCTAD (2001) argued that FDI in Mauritius was successful in allowing local investors to acquire and assimilate technologies and know-how and develop domestic firms in the EPZ and the tourism sector.

**Figure 1 - FDI and GDI in Mauritius, 1980-2000**

Sources: Yin (1992); Bank of Mauritius (2000).
Key factors in the success of Mauritius in attracting FDI are the existence of preferential trading agreements giving free access to the EU and US markets and historical ties with Asia and Europe. Some Mauritian specialists suggest that the large proportion of private domestic investments in the leading economic sectors (Figure 2) also contributed in the economic success of the island (Hein, 1989; Assidon, 1990; Dommen and Dommen, 1999; Blin, 2004). Indeed, the large proportion of private domestic investment is thought to have prevented large dependency on foreign capital (Hein, 1989) and to have facilitated joint ventures and therefore technological spillovers.

**Figure 2 - FDI, public domestic investment and private domestic investment in Mauritius, as a percentage of GDP**

Comparing Mauritius’ investment structure with other middle-income industrializing economies suggests that the low proportion of FDI to the Gross Fixed Capital Formation (GFCF) is not unique to Mauritius (Table 1). Countries such as South Korea and Taiwan also had low FDI as a proportion of GFCF, while Singapore, Malaysia and Hong Kong had much higher FDI inflows as a proportion of GFCF. However, all these countries experienced incredible growth rates in the last 30 years. In fact, evidence suggests that the quantity of FDI is not necessarily a prerequisite for FDI to contribute to economic growth (Zhang, 2001).

Therefore it is difficult to know whether FDI in Mauritius has been growth-enhancing or not on the basis of the small proportion of FDI to GFCF. Nevertheless, the known conditions for growth-enhancing FDI are all met in Mauritius. The country has a large human capital base (Blin, 2004), it is an export-oriented economy, it benefits from both political and macroeconomic stability, and the high rate of domestic investment in sectors with relatively high FDI inflow suggests there is a relatively high complementarity between domestic and foreign investments (Hein, 1989, UNCTAD, 2001).
Table 1- FDI inflows as a percentage of gross fixed capital formation

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauritius</td>
<td>2.07</td>
<td>0.44</td>
<td>3.97</td>
<td>5.06</td>
<td>1.94</td>
<td>25.88</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>17.49</td>
<td>7.65</td>
<td>-3.59</td>
<td>16.34</td>
<td>14.38</td>
<td>138.92</td>
</tr>
<tr>
<td>Taiwan</td>
<td>0.44</td>
<td>1.19</td>
<td>2.92</td>
<td>3.73</td>
<td>2.36</td>
<td>6.79</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>1.01</td>
<td>0.03</td>
<td>0.87</td>
<td>0.84</td>
<td>0.99</td>
<td>7.08</td>
</tr>
<tr>
<td>Malaysia</td>
<td>14.98</td>
<td>12.25</td>
<td>7.46</td>
<td>17.95</td>
<td>15.02</td>
<td>16.52</td>
</tr>
<tr>
<td>Singapore</td>
<td>14.73</td>
<td>25.93</td>
<td>14.02</td>
<td>46.83</td>
<td>40.79</td>
<td>45.63</td>
</tr>
</tbody>
</table>


2.2 Investment policies in Mauritius

The Mauritian government has generally been conductive in promoting private domestic investment seeing itself as complementing rather than replacing the private sector (Blin, 2004). Regarding FDI, the government has created a wide range of incentives to attract it (Blin, 2004). Double taxation treaties (24 in effect and another 14 under negotiation) are expanding and remain the main source of FDI (UNCTAD, 2001). There is no official foreign exchange control, Mauritius has a modern copyright law, and despite a rigid labour market, wages have generally been above the minimum wage set by the National Remuneration Board.

Although in theory the Government of Mauritius appears to be open to FDI, in practice it is only welcome in certain sectors such as manufacturing, hotel development, Information Technology (IT) and management, financial and business services. All foreign investors in Mauritius need an authorization from the Department of the Prime Minister (UNCTAD, 2001). Administrative delays, even though they have been reduced, are still a constraint. Other constraints are the poor quality of many services in Mauritius such as airfreight, telecommunications and insurance. The business surveyed by UNCTAD attributed the poor quality of services to the lack of competition (UNCTAD, 2001).

There has also been a lack of strategic focus in FDI incentives, maybe creating more costs than benefits (UNCTAD, 2001). Wignaraja (2001) argued that resources allocated for FDI promotion were too limited and incentives for technological upgrading, local linkages and R&D were inadequate. However, in 2000 the Board of Investment was created to facilitate both domestic and foreign investment and also to improve the efficiency of Mauritius’ investment policy. The question is whether FDI in Mauritius have been conductive to economic growth despite these shortfalls in FDI related policies.
3. THE MODEL, DATA AND METHODOLOGY

3.1. The model

The model used in this paper is built upon the following augmented production function:

\[ Y_t = f(I_g, I_p, FDI_t, HC_t, M_2, Open_t) \]  

(1)

where \( Y \) is real GDP per capita; \( I_g \) is public investment; \( I_p \) represents private investment; \( FDI \) is foreign direct investment; \( HC \) is human capital; \( M_2 \) is money supply, a measure of the financial sector deepening; and \( Open \) stands for openness of the economy measured by trade.

For the estimation purpose, equation (1) can be represented by the following logarithmic reduced form equation:

\[ \ln Y_t = \alpha_0 + \alpha_1 \ln I_g + \alpha_2 \ln I_p + \alpha_3 \ln FDI_t + \alpha_4 \ln HC_t + \alpha_5 \ln M_2_t + \alpha_6 \ln Open_t + \epsilon_t \]  

(2)

3.2. Data

The data used in this paper comes from various sources. The data for foreign direct investment, public investment and private investment (all expressed as a % of GDP) is obtained from the Annual Digest (2002) of The Central Statistics Office-Government of Mauritius. The data on the financial sector variable (\( M_2 \) as % GDP), human capital variable (secondary school enrollment-5 year average) was obtained from the World Development Indicators (2002). The openness variable (\( OPEN \)), which is proxied by trade (in % of GDP), has been calculated by adding exports (% of GDP) and imports (% GDP), both from the World Development Indicators (2002). Summary statistics of the data [in logarithm form] are presented in TABLE 2.

3.3. Methodology

The methodology used in this paper is based on the ARDL bounds cointegration approach proposed by Pesaran et al. (2001). The choice of this methodology is based on several considerations. Firstly, as shown by Pesaran et al. (2001), the ARDL models yield consistent estimates of the long run coefficients that are asymptotically normal irrespective of whether the underlying regressors are I(1) or I(0). Secondly, this technique generally provides unbiased estimates of the long run model and valid t-statistics even when some of the regressors are endogenous (Harris, 2003). Inder (1993) and Pesaran (1997) have shown that the inclusion of the dynamics may help correct the endogeneity bias. Thirdly, given the size of the sample used in this study (26 observations) and the number of parameters to be estimated (6 in total, excluding the constant term) the bound approach appears more appealing than the Johansen cointegration technique, which would have required the estimation of a system of 6 equations and thus a considerable loss in degrees of freedom. Finally, the ARDL approach has good small sample properties compare to alternative techniques.
Table 2 - Summary statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln rgdppc</td>
<td>6.158</td>
<td>0.323</td>
<td>5.654</td>
<td>6.711</td>
</tr>
<tr>
<td>ln fdi</td>
<td>-0.625</td>
<td>0.944</td>
<td>-2.834</td>
<td>1.805</td>
</tr>
<tr>
<td>ln lg</td>
<td>2.067</td>
<td>0.189</td>
<td>1.740</td>
<td>2.498</td>
</tr>
<tr>
<td>ln lp</td>
<td>2.889</td>
<td>0.204</td>
<td>2.403</td>
<td>3.180</td>
</tr>
<tr>
<td>ln M2</td>
<td>3.987</td>
<td>0.269</td>
<td>3.638</td>
<td>4.388</td>
</tr>
<tr>
<td>ln Open</td>
<td>4.763</td>
<td>0.119</td>
<td>4.539</td>
<td>4.925</td>
</tr>
<tr>
<td>ln HC</td>
<td>3.96</td>
<td>0.214</td>
<td>3.627</td>
<td>4.245</td>
</tr>
</tbody>
</table>

To implement the bound test procedure, equation (2) is modelled as a conditional ARDL- error correction model:

\[
\Delta \ln Y_t = \beta_0 + \sum_{j=1}^{n} \beta_j \Delta \ln y_{t-j} + \sum_{j=1}^{n} \delta_j \Delta \ln \bar{X}_{t-j} + \sum_{j=1}^{n} \mu_j \Delta \ln FD_{t-j} + \sum_{j=1}^{n} \phi_j \Delta \ln HC_{t-j},
\]

subject to constraints that all the estimated coefficients of lagged level variables equal to zero. That is, the null hypothesis of no cointegration \((H_0: \eta_1 = \eta_2 = \eta_3 = \eta_4 = \eta_5 = \eta_6 = \eta_7 = 0)\) is tested against the alternative \((H_1: \eta_1 \neq 0, \eta_2 \neq 0, \eta_3 \neq 0, \eta_4 \neq 0, \eta_5 \neq 0, \eta_6 \neq 0, \eta_7 \neq 0)\) by the mean of an F-test with an asymptotic non-standard distribution. Two asymptotic critical value bounds provide a test for cointegration when the independent variables are I\(d\) with \(0 \leq d \leq 1\). The lower bound assumes that all the regressors are I\(0\), and the upper bound assumes that they are I\(1\). If the computed F-statistics lies above the upper level of the band, the null is rejected, indicating cointegration. If the computed F-statistics lies below the lower level band, the null cannot be rejected, supporting the absence of cointegration. If the statistics fall within the band, inference would be inconclusive. After confirmation of the existence of a long run relationship between the variables in the model, the long run and short run models can be derived using information criteria such as the Schwartz Bayesian or the Akaike information criteria.

The ARDL approach to cointegration does not require the pre-testing of the variables included in the model for unit root unlike other techniques such as the Johansen approach (Pesaran et al., 2001). However, as remarked by Ouattara (2004), if the order of integration of any of the variables is greater than one, for example an I(2) variable, then the critical bounds

3. Although most macro time series are either I(0) or I(1) the existence of I(2) variables is well documented in the cointegration literature (Harris, 2003; Johansen 1995).
provided by Pesaran et al. (2001) are not valid. They are computed on the basis that the variables are I(0) or I(1). Put differently, it is necessary to test for unit root to ensure that all the variables satisfy the underlying assumption of the ARDL methodology before proceeding to the estimation stage. With this in mind, we start the econometric analysis, in this paper, by analyzing the order of integration of the variables. TABLE 3 which reports unit root results based on the ADF and Phillips Perron tests, shows that all are I(1) or I(0). Consequently, one can apply the ARDL methodology to our model.

**Table 3 - ADF and PP unit root tests (with constant no trend)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF</th>
<th>PP</th>
<th>Variables</th>
<th>ADF</th>
<th>PP</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>lnY</td>
<td>0.060</td>
<td>-0.010</td>
<td>ΔlnY</td>
<td>-4.781***</td>
<td>-4.806***</td>
<td>I(1)</td>
</tr>
<tr>
<td>lnlg</td>
<td>-4.269***</td>
<td>-4.361***</td>
<td>Δlnlg</td>
<td>...</td>
<td>...</td>
<td>I(0)</td>
</tr>
<tr>
<td>lnlp</td>
<td>-3.037**</td>
<td>-3.030**</td>
<td>Δlnlp</td>
<td>...</td>
<td>...</td>
<td>I(0)</td>
</tr>
<tr>
<td>lnFDI</td>
<td>-2.913**</td>
<td>-2.868</td>
<td>ΔlnFDI</td>
<td>...</td>
<td>-4.882***</td>
<td>I(1)</td>
</tr>
<tr>
<td>lnHC</td>
<td>-1.105</td>
<td>-1.046</td>
<td>ΔlnHC</td>
<td>-5.467***</td>
<td>-5.505***</td>
<td>I(1)</td>
</tr>
<tr>
<td>lnM2</td>
<td>0.721</td>
<td>0.432</td>
<td>ΔlnM2</td>
<td>-8.379***</td>
<td>-7.342***</td>
<td>I(1)</td>
</tr>
<tr>
<td>lnOpen</td>
<td>-1.201</td>
<td>-1.288</td>
<td>ΔlnOpen</td>
<td>-4.842***</td>
<td>-4.843***</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

Note: *** and ** represent significance at the 1% and 5% levels, respectively. The critical values are based on the finite sample values computed by McKinnon (1991). The software Stata 8 was used for these tests.

4. Estimation results

4.1. Long run relationship

Equation (2) is estimated for Mauritius using annual data covering the period of 1975-2000. Before testing the existence of a long run relationship among our variables it is important to decide the order of the lag of the ARDL. Following the standard practice in time series econometrics with annual observations we choose a lag order of 2 for the ARDL representation. Moreover, given the size of our sample this is a sensible lag to choose.

TABLE 4 reports results of the bound test for the existence of a long run relationship. The F-statistics (3.901) is above the 5 per cent critical bounds (2.476-3.646) computed by Pesaran et al. (2001), thus implying that the null hypothesis of no cointegration can be rejected. Put differently, there exists a long run relationship among the variables of our model. TABLE 5 shows results of the long run estimate based on the Schwartz Bayesian criteria. The selected ARDL [1, 0, 0, 2, 0, 0, 2], not presented here, passes the standard diagnostic tests (serial correlation, functional form, normality and heteroscedasticity).

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4. All information criteria in the context of the ARDL lead to similar results.
Table 4 - Bounds tests for the existence of cointegration

<table>
<thead>
<tr>
<th>F-statistics</th>
<th>5% Critical values</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (0)</td>
<td>I (1)</td>
</tr>
<tr>
<td>3.901</td>
<td>2.476</td>
</tr>
<tr>
<td>3.646</td>
<td></td>
</tr>
</tbody>
</table>

Long run results in Table 5 show, as we expected, that foreign direct investment has a stimulating effect on growth in the context of Mauritius. The estimated coefficient (0.044) is highly significant (i.e. at the 1 percent level). Our results also suggest that domestic private investment contributes to growth. Indeed, the coefficient of private investment with respect to income per capita (0.612) is highly significant in statistical terms. However, public investment does not appear to play a role in promoting growth in Mauritius based on our results. Although the estimated coefficient (0.117) is positive it is only significant at the 10 percent level.

Table 5 - Estimates of the long run coefficients – ARDL (1, 0, 0, 2, 0, 0, 2)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>t-ratios</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.510</td>
<td>-1.293</td>
<td>0.220</td>
</tr>
<tr>
<td>ln(lg)</td>
<td>0.117</td>
<td>2.028</td>
<td>0.065</td>
</tr>
<tr>
<td>ln(lp)</td>
<td>0.612</td>
<td>13.281</td>
<td>0.007</td>
</tr>
<tr>
<td>ln(FDI)</td>
<td>0.044</td>
<td>3.174</td>
<td>0.008</td>
</tr>
<tr>
<td>ln(HC)</td>
<td>1.318</td>
<td>3.879</td>
<td>0.002</td>
</tr>
<tr>
<td>ln(M2)</td>
<td>-0.035</td>
<td>-0.113</td>
<td>0.912</td>
</tr>
<tr>
<td>ln(Open)</td>
<td>0.137</td>
<td>0.901</td>
<td>0.386</td>
</tr>
</tbody>
</table>

The other variables in our model also warrant some comments. The financial sector variable (M2 as a percentage of GDP) does not appear to exert a significant effect on growth. The estimate of the human capital variable, proxied by secondary school enrolment, bears a positive sign (1.318) and is significant at the 1 percent level. This confirms the predictions of the endogenous growth theory on the importance of human capital for economic growth. Finally, openness, measured as the sum of exports and imports as a share of GDP, does not seem to have a significant effect of real GDP per capita. The estimated coefficient is positive (0.137) but statistically insignificant.

4.2 Short run dynamics

The fact that the variables in our model are cointegrated provides support for the use of an error correction model mechanism (ECM) representation in order to investigate the short run dynamics. Estimation results, still based on the Schwartz Bayesian criteria, are presented in Table 6.

The adjusted-$R^2$ is 0.709 suggesting that such error correction model fits the data reasonably well. Additionally, the computed F-statistics clearly reject the null hypothesis that all regressions
have zero coefficients. More importantly, the error correction coefficient (−0.683) has the expected negative sign and is highly significant. This helps reinforce the finding of a long run relationship among the variables in the model. The coefficient of the error correction term suggests that deviation from long run growth this period is corrected by about 68 percent in the next year.

The results in Table 6 suggest that the immediate impact of changes in the growth rate of public investment is positive and marginally significant at the 5 percent level. Private investment lagged one period appears to have a negative significant impact on growth, whilst contemporaneous changes in private investment have positive and statistically significant impact. Turning to foreign direct investment, it can readily be discerned that this variable has a positive and statistically significant effect on the growth rate of per capita output. Openness, financial sector, and human capital variables appear not to have a significant immediate impact on growth, whilst the financial sector variable appears with a positive significant impact on it.

**Table 6 - Estimates of the error correction representation**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>t-ratios</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>dconstant</td>
<td>−1.031</td>
<td>3.460</td>
<td>0.004</td>
</tr>
<tr>
<td>dln Ig</td>
<td>0.080</td>
<td>2.035</td>
<td>0.061</td>
</tr>
<tr>
<td>dln Ip</td>
<td>0.179</td>
<td>3.259</td>
<td>0.006</td>
</tr>
<tr>
<td>dln p(-1)</td>
<td>−0.180</td>
<td>−2.422</td>
<td>0.030</td>
</tr>
<tr>
<td>dln FDI</td>
<td>0.030</td>
<td>3.460</td>
<td>0.004</td>
</tr>
<tr>
<td>dln HC</td>
<td>0.117</td>
<td>0.916</td>
<td>0.375</td>
</tr>
<tr>
<td>dln M2</td>
<td>−0.024</td>
<td>−0.114</td>
<td>0.911</td>
</tr>
<tr>
<td>dln Open</td>
<td>0.094</td>
<td>0.916</td>
<td>0.375</td>
</tr>
<tr>
<td>Ecm(-1)</td>
<td>−0.683</td>
<td>−4.435</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Notes: Adjusted-$R^2 = 0.709$; DW-statistic = 2.177; F-statistic = 7.441.

Structural stability test, based on the cumulative sum (CUSUM) and the cumulative sum of squares (CUSUMSQ) tests proposed by Brown et al. (1975), reveals that both the CUSUM and CUSUMSQ plots lie within the 5 per cent critical bound (Figure 3). This indicates that the estimated parameters do not suffer from structural instability.
5. Conclusion and policy implications

This paper has investigated the impact of foreign direct investment on economic growth in Mauritius over the period of 1975-2000. The findings suggest that the variables included in the underlying production function are bound together in the long run. Results based on the long run estimates showed that foreign direct investment and domestic private investment are the most growth enhancing types of investment in Mauritius. In addition, human capital was also found to play an important role in promoting economic growth. Our measure of financial sector development and openness did not appear to have a significant impact on growth in the context of Mauritius.

These results suggest that private investment and FDI should further be encouraged. The government should create more incentive for private domestic investment in the new high value-added sectors such as IT. Indeed, this will not only contribute to economic growth as
Our results suggest, but also might be attractive for those foreign investors who are looking to share risks. Such incentives will also favour linkages and technology and knowledge spillovers.

The results also suggest that, despite insufficiencies in FDI policies and the relatively low level of FDI inflow, FDI has been conducive to economic growth in Mauritius. The results confirm Zhang’s finding that the quality and type of FDI is likely to be of more relevance than the quantity of FDI inflows (Zhang, 2001). While the regression analysis could not capture sectoral trends due to lack of data, one should note that during the period of study FDI inflow was mostly in labour-intensive low value-added activities and therefore suffered little from the inadequacies in R&D and technological capabilities incentives. Also the favourable local and international economic context, the relatively good infrastructures, the presence of private investors ready to invest, and the availability of cheap educated female labour force in the EPZ were sufficient to attract FDI and generate benefits for the economy. Unfortunately, during the period of study, FDI remained highly concentrated regarding sector as well as in skills and capabilities, therefore limiting the capacity to rapidly upgrade and diversify production.

Furthermore, Mauritius has been unable until now to attract significant FDI in high-value added activities, despite the government’s objective of developing competitive advantages in higher value added activities in the industrial and service sectors (e.g. financial sector, EPZ and the Information Technology sector). The global context for Mauritius is now very different from that of the period of study; the 2004 phase out of Multi Fibre Agreement (MFA) quota means that one of the location advantage offered by Mauritius for FDI inflow in textile and clothing has disappeared and the main source of net foreign exchange and capital will be facing increasing competition with the erosion of the sugar protocol. Nevertheless, after a slowdown in FDI inflows in the late 1990s early 2000s, there has been a resurgence in particular in telecommunication, banking, EPZ and tourism since 2002-2003. While more in depth sectoral analysis is required to better understand this resurgence one could speculate whether the growth of the IT sector is starting to attract FDI in other sectors. Evidence suggests for example that a 10 per cent increase in the number of internet host/users can increase FDI inflow by more than 2 per cent (Choi, 2003). There is also evidence that IT improves productivity in tourism, manufacturing and banking (Buhális, 1998; Prasad and Harker, 1997). While it is too early to evaluate if IT generated productivity spillovers in other sectors, it nevertheless suggests that the further promotion of IT in Mauritius can be an avenue to ensure continued FDI inflow.

What is more, to attract potential investors in high value-added activities the government should complement the existing policies with initiatives to simplify and speed the bureaucracy which remains cumbersome. Improvement in the quality of the secondary, vocational

5. From 2008, preferential prices on sugar will disappear (the sugar industry is the main source of foreign exchange in Mauritius) and reciprocal total free trade should start being implemented between Africa-Caribbean-Pacific countries and the EU.
and tertiary education will also be essential; this will also facilitate linkages, technology assimilation and knowledge spillovers especially if ties between tertiary research institute and the private sector are encouraged further.

To ensure FDI will continue to contribute to economic growth, the government will have to create more incentives towards achieving FDI policy objectives. While the government of Mauritius has targeted the IT, upgrading of the textile industry, the free-port and fishing industry as priority areas, it is unclear which type of FDI it is interested in and how it plans to ensure that it will yield the reckoned benefits. For example, telecommunication costs remain prohibitive in Mauritius.

This study argued that given the positive impact of FDI on economic growth, Mauritius should ensure it remains an attractive spot for foreign investors, especially as it is facing new challenges with the phasing out of the MFA and the implementation of the Cotonou Agreement. However, more in depth sectoral analysis on the process by which small amounts of FDI inflows have succeeded in promoting growth would help in understanding the condition for effective FDI in Mauritius and help in building effective investment promotion policies.

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REFERENCES


