Masanja, Cosmas R.

Article

The extent to which foreign direct investment (FDI) contribute to the growth of host economies : evidence from Tanzania

Reference: Masanja, Cosmas R. (2018). The extent to which foreign direct investment (FDI) contribute to the growth of host economies : evidence from Tanzania. In: Business management review 21 (1), S. 1 - 22.

THE EXTENT TO WHICH FOREIGN DIRECT INVESTMENT (FDI) CONTRIBUTE TO THE GROWTH OF HOST ECONOMIES: EVIDENCE FROM TANZANIA

Cosmas R. Masanja[1]

ABSTRACT

The classical assertion that inward Foreign Direct Investment (FDI) spurs growth of the host economy has led Tanzania into designing and offering lucrative investment incentive packages to attract FDI. As a result, a big number of such FDI undertakings have been flowing into the country for decades. However, it is unclear to what extent such huge inflows of FDI contribute to Tanzania's economic growth. This article examines the extent to which inward foreign direct investment contributes to the economic growth of Tanzania. Using Ordinary Least Square (OLS) estimation techniques, the 1990-2013 period macroeconomic time series data on appropriately chosen dependent and independent variables were regressed. Findings show that FDI has positive but insignificant contribution towards the country's economic growth for the period under consideration. This is contrary to the FDI-led growth conventional thinking. Nevertheless, higher FDI concentration in mining and manufacturing sectors but least in agriculture and tourism sectors that bear wide linkages across sectors of the economy may be an explanation for such overall weak contribution. Other variables included in the regressed model appear to behave variously towards economic growth. Human capital stock has the most significant positive coefficient. Domestic capital formation and financial system/capital market efficiency have positive coefficient but not as significant as human capital stock. Inflation rate and government expenditure are found to have negative impact on the economy. The findings imply that a country has to consider human capital stock as central to all its economic growth and development strategies. Also, there must be deliberate effort to improve policies and other necessary measures to attract, target and channel FDI to sectors bearing higher potential for growth and trickle-down effects, preferably agriculture and tourism.

[1] Cosmas R. Masanja , Assistant Lecturer; Department of Accounting, University of Dar es Salaam Business School, Tanzania (E-mail: masanja@udbs.udsm.ac.tz;csanjas@yahoo.co.uk Mob: +255 714498885).

Business Management Review 21(1), pp.1-22 ISSN 0856-2253 (eISSN 2546-213X)

Keywords: *Foreign direct investments, economic growth, linkages, time series data, developing countries, Tanzania.*

INTRODUCTION

Over decades, economic growth and development for developing countries has been a concern worldwide following the long-lasting poor living standards and huge discrepancy between the poor and the world's rich economies (Kumar, 2007; Crespo & Fontoura, 2005; Bende-Nabende, 2001). The reasons for this remarkable gap and its implications are still being debated. Among other reasons, differences in financial and physical assets that create wealth play key roles in explaining such a discrepancy; that is, developed economies possess more of this capital and translate and/or incorporate such capital in more advanced technologies (Kumar, 2007; Bende-Nabende, 2001). This implies that the capacity of developing economies to acquire more capital and modern technology is a key aspect to the growth and development of their economies. In the endeavour to ensure much more financial and physical capital supply, developing countries undertook internal capital formation initiatives in the late 1980s (Kumar, 2007; Crespo & Fontoura, 2005; Bagachwa, 1992). However, results have never been impressive and thus efforts to attract more foreign capital are increasingly gaining much more attention resulting into more inflows from developed economies mainly in form of Foreign Direct Investment (FDI), and a few in Portfolio Equity and Debt Investment (Kumar, 2007; Bagachwa, 1992).

FDI is a cross-border movement of capital/productive assets, long-lasting ownership and control of capital/productive assets by an investor in a country other than his/her home country; that is, the ownership of productive assets by a home entity in another nation, but excluding the purchase of foreign stock or the lending of funds to foreign companies and governments for they are not FDI but other forms of investment known as portfolio investment (Cypher & Dietz, 2009). FDI is widely asserted to have potentials to deliver enormous benefits to developing/least developed economies such as bridging the gap between savings and investment, modern technology and promotion of a robust financial sector (Cypher & Dietz, 2009; Jones & Wren, 2006; Crespo & Fontoura, 2005; Findlay, 1978). It is probably for this reasons most governments of developing economies have since the late 1980s been struggling to attract as big FDI as possible mainly from developed economies (Jones & Wren, 2006; Bagachwa, 1992). From 1990s to late 2000s, total FDI flows to developing countries skyrocketed from USD 1,414,394 to around USD 22,985,697 which was 26.29% of the world inward FDI totals (UN/WIR, 1995; 2000; 2005; 2007; 2010; 2012; 2013; 2014).

Nevertheless, empirical tests on FDI-growth classical assertions have resulted into mixed findings. Balasubramanyam, Salisu and Sapsford (1996) and Borensztein, Gregorio and Lee (1998) studies on the contribution of FDI inflows

to economic growth of the host country confirmed significant positive impacts; meanwhile, some studies have drawn different inferences (significant, insignificant, no effect, and sometimes negative impacts). For example, Bende-Nabende's (2001) study in Indonesia, Malaysia, and Philippines for the period 1970-1996 revealed a significant positive test statistic; yet, the same test by Bende-Nabende (2001) resulted into negative relationship for Singapore and Thailand. Also, Alfaro (2003), Blomström and Kokko (2003), Crespo and Fontoura (2005) studies on FDI-driven growth in different developing economies altogether concluded that FDI associated benefits, be they direct or indirect/spillovers, do not automatically accrue to the host economies; rather they are potentials whose realisation depends on various pre-conditions. These pre-conditions/determinants relate to both foreign investment (Multinational Enterprises), and host country's macro and firm level characteristics (Crespo & Fontoura, 2005; Alfaro, 2003; Blomström & Kokko, 2003). Specifically, such pre-conditions include but not limited to host country's human capital stock, macro- and micro-economic development level, domestic firms' absorptive capacity and technological gap influence, FDI's entry modes, sectoral concentration and market focus/orientation (Crespo & Fontoura, 2005; Alfaro, 2003; Blomström & Kokko, 2003). The said pre-conditions do not seem to be possessed at a satisfactory level in many developing and/or least developed economies (Crespo & Fontoura, 2005) Tanzania not being an exception.

Based on mixed findings from extant studies and pre-conditions as pointed out earlier, it is important to find out whether or not FDI inflows into developing economies, Tanzania in particular, do contribute significantly to economic growth as well as widely asserted in standard FDI-led growth literature. This article therefore set out to empirically examine the extent to which FDI inflows have contributed to the economic growth of African countries, using Tanzania as the unit of analysis for the 1990-2013 period. The period so chosen is backed by the fact that it is the very period that Tanzania experienced the highest FDI inflow levels (Bank of Tanzania, Tanzania Investment Centre, National Bureau of Statistics, 1996; 2003; 2007; 2010; 2012; 2013; 2014). The rest of the article is organised as follows: literature review; methodology; findings presentation and discussion; and conclusion and policy implications.

LITERATURE REVIEW

Overview of Foreign Direct Investment (FDI) Inflows in Tanzania

Since independence, the main sources of external resource flows into Tanzania have been official development assistance (ODA) – referred to as foreign aid and non-concessionary loans from bilateral as well as multilateral regional and international entities (Mans, 1993; Bagachwa, 1992; Rweyemamu, 1973). The interest to foreign capital inflows, FDI in particular, has varied with the changing perceptions with which foreign investment has been viewed at the respective time (Mans, 1993; Bagachwa, 1992). Three distinct historical phases in which

the FDI regime has gone through in Tanzania since independence and the general economic performance thereof are the 1961-1967 phase, 1968-1985 phase, and 1985-to present phase (Mans, 1993; Bagachwa, 1992; Rweyemamu, 1973).

The 1961-1967 phase was the liberal period in which foreign investment was regarded as the major player in the growth of the economy and development (Mans, 1993; Rweyemamu, 1973). This phase recorded significant improvement of the economy as opposed to the time before independence (Rweyemamu 1973). Next in line was the nationalism and/or Arusha Declaration phase (1967-1985). Arusha Declaration put to an end foreign investment policies, nationalised all foreign owned enterprises, and all major means of production were declared to be under effective control of the state (Mans, 1993; Bagachwa, 1992). This strategy brought about the expected payoff, but in a short run. For example, between 1967 and 1976, an average economic growth rate of 5.4% and an annual rate of inflation of a single digit (Bagachwa, 1992) were recorded; gross investment rose to more than 20% of GDP, and donor assistance increased rapidly during this period (Mans, 1993) despite the restriction of private sector activities. However, such benefits proved to be short-lived in the late 1977 to 1984/1985 when the country experienced a series of crises ranging from the collapse of East Africa Community in 1977, war with Uganda (1978-1979), world oil shock in 1980, and world recessions in early 1980s (Mans, 1993). This situation called for an urgent need of policy responses (refer NESP, 1980/81-1981/82; and SAPs, 1982/83 to 1984/85) to redress such economic shocks (Mans, 1993; Bagachwa, 1992).

Despite the efforts through NESP and SAPs, such interventions did not work as effectively as expected (Mans, 1993; Bagachwa, 1992). The real GDP growth declined from 6.73% in 1972 to -2.38% in 1983 (Mans, 1993). The inflation rate increased from 12.8% in 1977 to 36.1% in 1984 (Bagachwa, 1992), while foreign reserves dropped from US$ 112 million in 1976 to just US$ 26.9 million in 1984 (Mans, 1993). Budgetary resources gradually failed to cover the financial requirements for the social infrastructure and industrial capacity created in the 1970s, so trade balance steadily deteriorated (Mans, 1993).

The 1985-present phase (liberalisation phase) came into being as a function of efforts to intervene against the continuous decline in economic performance together with pressure from the International Monetary Fund (IMF), World Bank, and donor countries (Mans, 1993; Bagachwa, 1992). These altogether forced the government to rethink about its inward looking economic policy. As a result, Tanzania decided to pursue diverse economic reforms in 1986 onwards (ERP I, 1986/87-1988/89 and ERP II, 1989/90-1991/92) tailored to liberalisation and transformation of the country's economy and trade as one aspect (Mans, 1993). These series of reforms, among others, reversed the discouraging signals that had been sent to investors following the promulgation of the Arusha Declaration. The elimination of price and exchange rate controls and

liberalisation of the various sectors (agriculture, trade, finance) provided a conducive environment for both local and foreign private investment (Mans, 1993; Bagachwa, 1992).

Since 1986 to-date, the Government of Tanzania has recognised and hence promoted the role of the private sector in the country's development process. This recognition has been manifested or seen in the promotion and/or attraction of foreign direct investment (FDI) through designing and offering lucrative incentive packages via the Tanzania Investment Centre (TIC); progressive and massive restructuring and privatisation of the Parastatal Sector under the Parastatal Sector Reform Commission (PSRC); liberalisation of various sectors of the economy including private foreign banks/non-banking financial institutions and deregulation of exchange and interest rates. In addition, Tanzania joined the International Centre for Settlement Disputes (ICSSID) and the Multilateral Investment Guarantee Agency (MIGA) to consolidate guarantees and to give confidence to private investors, and established the Dar es Salaam Stock Exchange (DSE) in 1996 to improve the mobility of investible resources in the country.

Drawing from all these reforms and incentive packages, there have been relative improvement with respect to macro- and micro-economic environment that, among other things, has to a great extent led to a surge in FDI inflows mainly from the Republic of South Africa (RSA), Canada, UK, Netherlands, Mauritius, Australia, Kenya Italy, USA, China and Switzerland (BOT NBS & TIC/TIR, 2003; 2007; 2012; 2013; 2014). For example, during 1995-2000 Tanzania received a total of $1 billion of FDI compared with less than $2 million during 1986-1991 (BOT, 1995; 1998; 2000; UN/WIR, 1990; 2003). From 2001 to 2004, total FDI inflows were $1494 million while from 2005 to 2007 total FDI inflows were $1718 million (UN/WIR, 2003; 2005; 2008). Inflows rose from $582 million in 2007 to $1702 million in 2012 (UN/WIR, 2008; 2010; 2013). Between 2011 and 2012, FDI inflows to the country registered an increase of $ 476.6 million; this recorded an increase in her share in the African Region from 2.6% in 2011/12 to 3.4% 2012/13 and a relatively constant share of 27% in East Africa Region (BOT, NBS & TIC/TIR, 2012, 2014; UN/WIR, 2013, 2014).

However, the largest portion of this FDI seems to be channelled into the avenues viable and more profitable to the investors, relative to the economy as a whole. For example, from 2007 to 2012/2013, Tanzania witnessed FDI inflows upsurge in mineral and manufacturing sectors to the tune of $3,317.63 million and $1,540.5 million respectively, whereas the sectors of the economy bearing higher potential for inclusive development, that is, agriculture and tourism received only $12.5 million and $364.4 million respectively (BOT, NBS & TIC/TIR, 2008; 2012; 2013; 2014).Yet, over the same period, manufacturing and mining sectors contributions to the overall GDP averaged as 3.8% and 7.8% respectively (BOT & NBS, 2008; 2009; 2010; 2011; 2012; 2013; 2014). Such contributions are

insignificant relative to agriculture and tourism sectors whose contributions averaged 25.8% and 19.3% respectively and thus a total of 45.1% contribution to the overall GDP (BOT & NBS, 2008; 2009; 2010; 2011; 2012; 2013; 2014).Therefore, agriculture, the largest sector in the economy with the greatest economic growth potential, employing about 80% of the total population, leave alone the largest contributions to overall GDP (BOT, NBS & TIC, 2014), is in this case the least FDI attracting sector. Also, the tourism sector which is increasingly gaining popularity as one of Tanzania's growing foreign exchange earners as well as the major contributor to the country's GDP (BOT, NBS & TIC, 2010; 2014) is receiving few FDI inflows.

The fact that sectors bearing the large potential for growth are marginalised in terms of FDI inflows raises a question as to whether or not FDI inflows into Tanzania contribute substantially to the growth of the economy, whether directly or indirectly. Therefore, there was a need to find out the actual contribution of FDI in the country's economy.

FDI-Led Growth Theory and Empirics

Literature classifies inward FDI benefits that eventually lead to growth of the host economy in two major categories – direct benefits and indirect benefits – commonly known as spillovers (Cypher & Dietz, 2009). The commonly mentioned FDI direct benefits to the host country are that FDI brings financial capital to bridge the host country's savings gap, hi-tech physical capital goods and production processes, and modern managerial skills/styles. They also increase national output, employment opportunities, and government revenues via taxes, among other things (Cypher & Dietz, 2009; Jones & Wren, 2006; Blomström & Kokko, 2003; Findlay, 1978). Indirect benefits include transfer or upgrade of technology, modern managerial knowledge and skills, forward and backward linkages, employment opportunities, and many more spillovers to domestic firms, which in turn may improve their productivity and therefore spur the country's overall economic growth (Cypher & Dietz, 2009; Jones & Wren, 2006; Blomström & Kokko, 2003).

The mechanisms/channels through which the said indirect benefits spillover to domestic firms and the host economy as a whole are in various forms as explored by several FDI literature. Jones and Wren (2006), Crespo and Fontoura (2005), Blomström and Kokko (2003), Wang and Blomström (1992) and Lall (1980) altogether identify and/or establish about five channels: linkages between the foreign investors and domestic firms, both backward linkages towards the suppliers and forward linkages towards the purchaser, labour mobility between domestic firms and foreign firms, technology imitation/demonstration by domestic firms, and domestic market competition and export activity. However, such channels work better or more effectively if the host country has the minimum threshold economic, technological, and human capital/skill development levels (Alfaro, Chanda, Kalemli-Ozcan & Sayek, 2004; Borensztein

et al., 1998; Barro, 1999) and economy openness, financial system, government expenditures level deemed necessary for spurring FDI-led growth (Hermes & Lensink, 2003; Nguyen, 2002; OECD, 2002; De Mello, 1997; Bulasubramanyam *et al*., 1996).

The minimum threshold of stable economic development proxied by multiple measures namely inflation and government expenditures is hypothesised to have positive significant influence on FDI-led growth in a situation of low inflation and government expenditures, and negative impact in a situation of high inflation and government expenditures (Alfaro *et al*., 2004; Hermes & Lensink, 2003; Nguyen, 2002; OECD, 2002; Borensztein *et al*., 1998; De Mello, 1997). Low inflation is presumed to lower production costs and increase the purchasing power and consumption of various actors in the economy therefore increasing economic growth as opposed to high inflation (Alfaro *et al.*, 2004; Borensztein *et al.*, 1998). The basic argument with regard to government expenditure is that any fiscal adjustment to the extent of lowering government expenditure reduces the level of distortionary taxation and may also help to reduce crowding-out of private investments, and thus bring positive impact on economic growth as opposed to higher ones (Alfaro *et al*., 2004; Hermes & Lensink, 2003; Nguyen, 2002; OECD, 2002; Borensztein *et al.*, 1998). Likewise, the minimum threshold of human capital stock proxied by the level of education development is hypothesised to promote FDI-led growth for it easies absorption of modern technologies, managerial skills and employment opportunities brought in by FDI as compared to limited and/or poor human capital stock (Nguyen, 2002; OECD, 2002; Barro, 1999; De Mello, 1997; Bulasubramanyam *et al*., 1996).

Furthermore, literature takes the hypothesis that the open economy and sound financial system proxied by trade liberalisation/openness policy and capital market presence respectively have positive impact on FDI-led growth as opposed to closed economy and unsound financial system (Hermes & Lensink, 2003; Nguyen, 2002; OECD, 2002). Trade openness and a sound financial system are said to enable enhance efficiency in exchange of goods, services as well as in allocating capital among actors of the economy and thus attracting more and more FDI inflows which in turn may result into higher economic growth (Hermes & Lensink, 2003; Nguyen, 2002; OECD, 2002).

There is a number of empirical works that have tested the theories/hypotheses underlying FDI and economic growth relationship. Some empirical studies support the theory that FDI through trade functions is the engine of economic growth, while other studies draw different conclusions. Bulasubramanyam *et al*. (1996) employed an endogenous growth framework to examine the relationship between FDI and economic growth in the context of different trade policy regimes, that is, export promoting and import substituting countries. Using cross section data to analyse forty-six developing countries over the period 1970-1985, they found that FDI will increase growth in countries which adopt export

promotion policy. Borensztein *et al*. (1998) applied a cross-country regression framework utilising time series data on FDI flows from industrial countries to 69 developing countries for 1970-1989 to analyse the impact of FDI on economic growth. The results of the analysis suggest that FDI inflows are in fact an important vehicle for the transfer of technology and a bigger contributor to growth than domestic investment. Further, it was found out that there is a strong complementary effect between FDI and human capital; that is, the contribution of FDI to the growth of the host economy is enhanced by its interaction with the level of human skills capital stock therein. Moreover, Borensztein *et al*. (1998) opined that FDI inflows are more productive than domestic investment only when the host country has a minimum threshold stock of skilled human capital.

Bengoa and Sanchez-Robles (2003) estimated the relationship between FDI and economic growth using panel data for eighteen Latin American countries over the period 1970-1999. Their results show that FDI has positive and significant impact on economic growth in the host countries. In addition, they found out that the benefit to the host country requires adequate human capital, political and economic stability and a liberalised market environment. Also Nguyen (2002) studied the contribution of FDI to poverty reduction in Vietnam using panel data covering 61 provinces for the 1990-2000 period. She found out that FDI contribution to growth estimated coefficient was significantly positive. Furthermore, the results showed positive interaction between FDI and local human capital in affecting economic growth.

Marwah and Tavakoli (2004) tested the effects of FDI on economic growth in Indonesia, Malaysia, Philippines, and Thailand. Using time series annual data over the period 1970-1998, they found out that FDI had positive correlation with economic growth for all four countries, whereby human capital stock and financial system coefficients were positive and significantly higher, whereas inflation's coefficient was negative. Also, Tian, Lin and Lo (2004) conducted FDI-growth empirical tests across Chinese provinces and confirmed that provinces with higher FDI ratio, low inflation, and low government expenditure had experienced rapid economic growth. They concluded that developing and less developed economies should encourage FDI inflows, and lower government expenditure to accelerate economic growth.

Although such empirics support the theory that FDI inflows have significant positive contribution to economic growth, this may not be the case always and/or everywhere. Some studies have drawn different inferences. For example, Bende-Nabende (2001) studied the impact of FDI economic growth of the ASEAN-5 for the period 1970-1996. The results showed that the impact of FDI on economic growth was positively signed and significant for Indonesia, Malaysia, and Philippines, but with a negative relationship for Singapore and Thailand. Also, Carkovic and Levine (2005) in their work titled 'Does FDI accelerate economic growth?' utilised General Method of Moment (GMM) to

observe the relationship between FDI inflows and economic growth covering the 1960-1995 period for a large cross-country data set of developing countries. Their findings indicated that FDI inflows did not exert influence on economic growth directly or through their effect on human capital. In summary, past studies on the impact of FDI inflows on economic growth have produced mixed results and therefore there was a need to test the same in the context of Tanzania.

METHODOLOGY

Model Formulation

Although extant FDI-led growth literature posits that FDI inflows have a positive impact on the growth of the host economy, such impact cannot be taken as a guarantee. Literature (see, for example, Alfaro *et al*. 2004; Hermes & Lensink, 2003; Nguyen,2002; OECD' 2002; Borensztein *et al*.,1998; DeMello, 1997; Bulasubramanyam *et al*.,1996) indicates that the FDI-economic growth relationship is likely to prevail in the host country with the minimum threshold economic, technological, and human capital/skill development levels; economy openness; sound financial system; and reasonably low government expenditures as opposed to a host country without such pre-requisites.

Tanzania has for years been receiving FDI yet information about the extent to which such FDI inflows contribute to her economic growth is limited. To test statistically the extent to which FDI inflows contribute to the economic growth of Tanzania, macro time series data covering a 23-year period from 1990 has been multi-regressed using the Ordinary Least Square (OLS) estimation techniques. As noted earlier in the introduction section, the period so chosen is backed by the fact that it is the very period that Tanzania experienced the highest FDI inflow levels (BOT, TIC & NBS, 1995; 2000; 2003; 2007; 2010; 2012; 2013; 2014).

Generally, a multiple regression model is expressed as:

$$Y = a + b1X1 + b2X2 + b3X3 + \cdots + bnXn \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

OLS has been picked because it is widely used as a tool to establish the degree and type of causal relationships among endogenous (dependent) and exogenous (explanatory/independent) variables). The analytical framework employed is closely related to new growth model used by Balasubramanyam and colleagues in 1996; that is, the basic endogenous growth modelling framework. The endogenous growth models assume that technical progress, knowledge capital, and knowledge spillovers contributing to growth are endogenously determined in the production process (Balasubramanyam, *et al*., 1996). In addition, unlike the traditional Solow-type models, endogenous growth models allow for the possibility of increasing returns. The models suggest that knowledge accumulated through R&D, learning by doing, and investment in education,

create externalities that result in increasing returns at the aggregate level of the economy (Balasubramanyam *et al*., 1996).

The model linking economic growth as a function of FDI can therefore be derived from a conventional production function. Thus:

$$Y = f(A, L, K) \quad \ldots\ldots 2$$

Where: *Y* is the output (Gross Domestic Product), *K* represents capital stock (summation of domestic and foreign owned capital), *L* is labour and *A* is total factor productivity that explains the output growth that is not accounted for by the increase in the factors of production specified.

Thereafter, we modify equation (2) to formulate the model for establishing the statistical relationship between FDI and growth, we treat economic growth proxied by total GDP as a dependent variable whereas FDI flanked with other economic growth enhancing factors/variables: domestic capital stock/formation, macroeconomic environment stability, trade liberalisation/openness, government consumption/spending, human skills capital stock, and efficient financial systems and capital markets (Alfaro *et al*., 2004; Hermes & Lensink, 2003; Nguyen, 2002; OECD, 2002; Borensztein, *et al*., 1998; De Mello, 1997; Bulasubramanyam *et al*., 1996).

Note that at this point, K (capital stock) in equation (2) is replaced by the economy's total capital formation which for the purpose of establishing the extent to which FDI contributes to the economic growth, we separate it (total capital stock) into FDI and Domestic capital. Hence equation (2) becomes:

$$Y = f(FDI, DIN, HSCS, GEX, FSCME, MES, TLB) \quad \ldots\ldots 3$$

Where: Y means total Gross Domestic Product representing economic growth measured by GDP% with respect to time. FDI is total foreign direct investment inflow in a given year. FDI/GDP ratio is taken as a proxy for FDI impact on economic growth. DIN stands for domestic investments (summation of both private and government domestic owned investment) proxied by total domestic capital formation to GDP ratio. $HSCS$ represents human skills capital stock and is measured by school enrolment growth rate per annum. GEX stands for government expenditures; this explanatory variable measures the extent of fiscal adjustment. The basic argument is that a reduction in government expenditure (current) reduces the level of distortionary taxation and may also help to reduce crowding-out of private investment, and thus bring positive impact on economic growth (Alfaro *et al*., 2004; Hermes & Lensink, 2003). This variable is measured

as a proportion of government expenditure to GDP ratio. $FSCME$ stands for sound financial system/capital markets efficiency measured by dummy values 0 and 1, where 0 stands for the period before capital market initiatives, and 1 stands for the period after. MES represents macroeconomic environment stability measured by inflation rate. TLB is trade liberalisation and/or trade openness measured by total trade (total exports and imports) to GDP ratio whereas "f" symbolises the mathematical denotation of the word function. Taking into account the variable proxies, equation (3) can now be transformed, thus becoming:

$$GDPGR = f\left(\frac{FDI}{GDP}, \quad \frac{DCF}{GDP}, \quad SSEGR, \quad \frac{GEX}{GDP}, \quad FSCME, \quad INFR, \quad \frac{TR}{GDP}, \quad \mu\right) \ldots\ldots\ldots 4$$

Whereas $GDPR$ is GDP growth rate per annum, FDI/GDP is net FDI stock to GDP ratio; DCF/GDP is domestic capital formation to GDP ratio; $SSEGR$ is secondary school enrolment growth rate; GEX/GDP is the government expenditure to GDP ratio; $FSCME$ is financial systems and capital markets efficiency; and $INFR$ is the annual inflation rate. TR/GDP is total trade (imports and exports) to GDP ratio; and μ is a disturbance term which captures the effects of all other variables not explicitly included in the model.

Equation (4) can further assume a log-linear form to stabilise the linearity of the model; the dummy variable (FSCME) bears no natural log, therefore:

$$LNGDPGR = \alpha_0 + LN\alpha_1 FDI/GDP + LN\alpha_2 DCF/GDP + LN\alpha_3 SSEGR + LN\alpha_4 GEX/GDP + \alpha_5 FSCME + LN\alpha_6 INFR + ln\alpha_7 TR/GDP + \mu \ldots\ldots\ldots 5$$

Where, $\alpha_{0,\ 1,\ 2 \ldots\ n}$ represent coefficients of exogenous variables. LN = natural log. Note that the variable L (labour) is dropped from the model in equations 3, 4 and 5 because labour in its own right (excluding skilled) does not foster inward FDI-led growth (Barro, 1999).

Data, Estimation Techniques and/or Regression Analysis of the Model

Data on FDI inflows, GDP growth rate, FDI/GDP, Domestic Capital Formation, and DCF/GDP have been collected from the World Investment Reports of 1990, 1995, 2000, 2003, 2005, 2007, 2008, 2010, 2012, 2013, and 2014; Bank of Tanzania (BOT); National Bureau of Statistics, Ministry of Finance and Economic Planning; and Tanzania Investment Centre (Tanzania Investment Reports). Secondary school enrolment growth rate data was obtained from the Ministry of Education and Vocational Training, while data on inflation rate, and total trade (exports and imports) was obtained from the Bank of Tanzania, and National Bureau of Statistics.

The over-parameterised multiple regression models in equation (5) are estimated by OLS analysis technique using STATA econometric software. The choice of OLS estimation technique was due to its simplicity, convenience and because it has been successfully used by other related studies and had given meaningful results (Koutsoyiannis, 1973). However, parameters obtained using this OLS technique are best, linear and unbiased.

To avoid the problems related to regressing time series data, descriptive statistics, unit root tests and relevant co-integration tests were performed. To ensure that both short- and long-run forecast/estimation produce economically meaningful results, the error correction model which is an alternative to the General Method of Moment (GMM) test was adopted consistent with Bulasubramanyam's *et al.* (1996) analysis. Also, to bring about a meaningful model, all variables with insignificant coefficients were dropped except for FDI and Domestic Capital because these variables carry the thrust of the study.

FINDINGS PRESENTATION AND DISCUSSION

Tables 1, 2, 3 and 4 show a detailed normality test, unit root tests (at levels and in the first difference), and the Johansen (1988) co-integration test. Table 1 shows that to a large extent data met the normality test: the degree of closeness of their mean and median statistics, as well as the Jarque-Bera probability for each variable justify this. Only a few variables still failed the normality test even after the transformation procedure (of natural logarithm) which usually attempts to distribute the variables normally.

Table1: Descriptive Statistics of Data (1990-2013)

	LNGDPGR	**LNFDI/GDP**	**LNDCF/GDP**	**LNSSEGR**
Mean	4.482353	22.27493	1..958824	12.72353
Median	4.461370	21.62949	1.873931	12.91588
Maximum	7.81823	47.88547	5.483893	51.34894
Minimum	0.6009	7.36486	0.16848	0.69563
Std. Dev.	2.171473	14.03678	1.34261	12.77094
Skewness	0.76369	-0.70372	-0.36507	1.078647
Kurtosis	3.7105	2.4169	2.09775	1.86438
Jarque-Bera	1.774567	1.45175	0.842483	3.71547
Probability	0.41198	0.48418	0.65538	0.15610
Observations	**23**	**23**	**23**	**23**
	LNGEX/GDP	**FSCME**	**LNINFR**	**LNTR/GDP**

Mean	14.23529	0.6470588	15.50588	50.50021
Median	14.19659	0.6793492	15.48374	51.038473
Maximum	20.5274	1.00000	38.195325	66.053794
Minimum	8.32896	0	67.540267	40.86653
Std. Dev.	4.131123	0.4925922	4.40953	8.860023
Skewness	-0.74252	-1.22661	11.53801	-1.60447
Kurtosis	1.938195	3.051285	0.09065	3.05044
Jarque-Bera	2.083748	3.76393	3.0882	6.43709
Probability	0.35291	0.15236	0.02523	0.04002
Observations	**23**	**23**	**23**	**23**

Source: Derived from data analysis

Table 2 shows results for the Augmented Dickey Fuller (ADF) test for presence of unit roots of the variables in the model. The unit root test results at levels (Table 2) show that only one variable (LNSSEGR) has no unit root (it is stationary), while the rest seven variables have unit roots, implying that they are non-stationary, and therefore accepting the null hypothesis of unit root. (see Table 3).

Table2: Results for Unit Root Test at Levels

Variables	**ADF Test Statistics**	**Order of integration**
LNGDPGR	-1.473	I(1)
LNFDI/GDP	-0.221	I(1)
LNDCF/GDP	2.625	I(1)
LNSSEGR	-2.670	I(0)***
LNGEX/GDP	-1.085	I(1)
FSCME	-1.323	I(1)
LNINFR	-0.822	I(1)
LNTR/GDP	-1.381	I(1)

Source: Derived from data analysis

Note: (i) McKinnon (1980) critical values are used for rejection of the null of the Unit root (ii) I(0) indicates variable is stationary (iii) I (1) = a variable is integrated of order one (v) Critical values for ADT: *1% = -3.750; ** 5% = -3.000; ***10% = -2.630

Acceptance of the null hypothesis of unit root test at levels for the remaining seven variables, as it appears in Table 2, tells us that at levels only variable (LNSSEGR) is ideal for regression analysis. This suggested for the next test for

non-stationarity of the variables (first difference). The test results (ADF test in the first difference), rejected the unit root null hypothesis; that is, in the first difference all variables are stationary/have no unit roots (see Table 3).

Table3: Results for Unit Root Test in First Difference

Variables	ADF Test Statistics	Orderof integration
d.LNGDPGR	-3.449	I(0)**
d.LNFDI/GDP	-4.450	I(0) *
d.LNDCF/GDP	-4.552	I(0) *
d.LNSSEGR	-9.747	I(0) *
d.LNGEX/GDP	-2.947	I(0)***
d.FSCME	-3.873	I(0)*
d.LNINFR	-4.765	I(0)*
d. LNTR/GDP	-2.913	I(0)***

Source: Derived from data analysis
Note: (i) McKinnon (1980) critical values are used for rejection of the null of the Unit root; (ii) I(0) indicates variable is stationary (iii) and Critical values for ADT: * 1% = -3.750; ** 5% = -3.000; ***10% = 2.630

Table 3 shows that all variables have no unit root/they are stationary in the first difference. This implies that the first difference is ideal in the regression analysis. The critical values have been used for acceptance/rejection of the null hypothesis of the unit root.

Having established the order of integration, a co-integration test was done using the Johnsen procedure (Johansen, 1988; Johansen & Juselius (1990) to establish whether the non-stationary variables are co-integrated. In the study, maximum eingen-valued statistics were computed as suggested by Johansen to test different rank hypotheses. Precisely, a co-integration test is carried out to establish whether the non-stationary exogenous variables drive each other and also if they have a bearing on the endogenous variable. In addition, the test is done to find out whether the endogenous variable has a long-run relationship with its determinants. The co-integration test summary in Table 4 indicates the presence of long-run equilibrium among the time series data.

Table4: Johansen Co-integration Test

Series: LNGDPGR LNFDI/GDPLNDCF/GDPLNSSEGRLNGEX/GDP FSCMELNINFRFSCME LNTR/GDPLags interval: 1 to 1				
Eingen value	Likelihood Ratio	5 Percent Critical	1 Percent Critical	Hypothesised No. of CE(s)
0.984203	223.639	126.21	138.60	**None****
0.835271	138.7782	96.18	105.39	At most 1**
0.704508	92.41781	66.91	78.09	At most 2**
0.575153	59.60255	46.33	53.49	At most 3**
0.492816	37.66125	28.79	36.74	At most 4**
0.346521	19.39163	16.09	21.07	At most 5*
0.300175	16.26003	11.29	17. 32	At most 6*
0.239755	0.6.921785	3.87	7.94	At most 7**

Source: Derived from data analysis

The implication of Johansen's (1988) co-integration test (Table 4) results is that even if individual variables are non-stationary, their linear combination may be stationary. The test results show that economic growth and all of its explanatory variables are co-integrated. However, it is worth noting that differencing to achieve stationarity leads to loss of long-run relationships among the variables. To re-establish these long-run relationship properties, the Engel Granger two-step procedure was used. This was done by generating residual/error correlation model (ECM) from long-run equations on non-stationary variables. The residual/ECM so generated was then tested for stationarity using ADF test and it was found to be stationary at first difference. Therefore, the ECM lagged once becomes part of the estimated final equation with other variables. Thus Johansen (1988) co-integration test led to the formulation of the long-run equation (6)

$d.LNGDPGR = \alpha_0 + d.LN\alpha_1 FDI/GDP + d.LN\alpha_2 DCF/GDP + d.LN\alpha_3 SSEGR + d.LN\alpha_4 GEX/GDP + d.\alpha_5 FSCME + d.LN\alpha_6 INFR + d.ln\alpha_7 TR/GDP + \alpha_8 ECM_{t-1} + \mu \ldots\ldots 6$

Being extensive with a number of variables, the over-parameterised model becomes difficult to interpret in any economic meaningful way. To minimise this possibility and so be able to arrive at a meaningful and manageable equation, insignificant variables with lower t-statistic values are dropped out. This is meant to improve the goodness of fit reflected in the value of an adjusted R- squared, with a smaller number of variables. Equation (5) is re-specified to include a lagged once error term (ECM_{t-1}) as shown in equation (6). The empirical results of the over-parameterised model with variables including the lagged once error term (ECM_{t-1}), are summarised in Table 5.

Table5: General Model, Modelling of d.LNGDPGR by OLS (1990-2013)

Variables	Coefficient	Std. Error	t-Statistic	t-Prob.
C (constant)	0.09938255	0.058985	2.14026	0.0140
d.LNFDI/GDP	0.05122335	0.169323	1.50431	0.1836
d.LNDCF/GDP	0.0311255	0.1773901	1.29137	0.2492
d.LNSSEGR	0.6416377	0.1466463	3.50339	0.0017
d.LNGEX/GDP	-0.3191731	0.1723248	-2.21004	0.0151
d.FSCME	0.0485182	0.6542107	0.07375	0.94301
d.LNINFR	-0.2556161	0.122036	-2.09118	0.07496
d.TR/GDP	0.0853014	0.8027746	0.11912	0.91811
ECM_{t-1}	-0.6751761	0.2175178	-4.43957	0.0003

Source: Derived from data analysis

Diagnostic tests: R-squared: 0.8749; Adjusted R-squared: 0.7320; F-statistic: 5.926467; Prob (F-statistic): 0.0009; Durbin-Watson (DW-statistic): 2.348831; *=Significant at 1% level; **=Significant at 5% level; *** Significant at 10% level; and coefficient of the $ECM_{(t-1)}$ measures the speed of adjustment of the variables from short-run behaviour to long-run equilibrium.

Using Hendry's (1996) general-to-specific process, only variables with significant parameters are selected to generate a more sensible model (preferred model) from the over-parameterised formulation. However, since FDI and of course domestic investments variables are of great interest in this study, they have been added to the preferred model despite bearing insignificant parameters in the general model (refer Table 5 results). Preferred model results are presented in Table 6.

Table 6: Preferred Model, Modelling of d.LNGDPGR by OLS (1990-2013)

Variable	Coefficient	Std. Error	t-Statistic	t-Prob.
C (constant)	0.1013925	0.053836	2.13916**	0.01194
d.LNFDI/GDP	0.0802908	0.1700391	1.83492	0.15028
d.LNDCF/GDP	0.0402904	0 .1897275	1.53905	0.17950
d.LNSSEGR	0.6521501	0.1677019	4.0038***	0.00102
d.LNGEX/GDP	-0.3191731	0.1823248	-2.71002**	0.03311
d.LNINFR	-0.2533919	0.1026727	-2.47138**	0.03692
ECM_{t-1}	-0. 9654769	0.1782817	-3.99542***	0.00132

Source: Derived from data analysis

Diagnostic tests: R-squared: 0.8744; Adjusted R-squared: 0.7907; F-statistic: 4.738547; Prob (F-statistic): 0.00012; Durbin-Watson (D-W statistic): 2.08; *=Significant at 1% level; **=Significant at 5% level; and *** Significant at 10% level

DISCUSSION

Using Ordinary Least Square (OLS), the study estimated the general results from the model. The process involved one lag for each variable and the error correction model (ECM_{t-1}) and then proceeded to the simplification of the over-parameterised error correction model by dropping all variables with insignificant t- values. However, as shown earlier, despite bearing insignificant t-values, FDI (d.LNFDI/GDP) and domestic investment (d.LNDCF/GDP) are included in the preferred model as they carry the thrust of the study.

Drawing from the analysis of descriptive statistics in Table 1, data transformation was essential in order to test the normality of residuals for the estimated model. When some variables failed this test of normality, correlation analysis was applied and the variables appeared to have strong positive correlation, except government expenditure (LNGEX/GDP), inflation rate (LNINFR), and trade openness (LNTR/GDP) variables. This supports the view that a rise in each of the positive correlated variables leads to an increase in economic growth. However, this information does not enable us to deduce the problem of multicollinearity in the series between economic growth and other variables because one is a dependent variable while others are explanatory variables. Multicollinearity is an observable fact which is common in most of macroeconomic variables and thus reduction of some variables depends on the significance of the correlation between the variables during the model estimation process. The formulation of errors correction term (ECM) and lagging it once was necessary to confirm the validity of co-integration obtained in Table 4. This was calculated by estimating the long-run static equation at levels where only the non-stationary variables were involved. One lag for each variable and the error correction model (ECM_{t-1}) as well as dropping of all variables with insignificant t- values with the exception of the FDI (d.LNFDI/GDP) and domestic investment (d.LNDCF/GDP) from the general model, lead to a preferred model as indicated in Table 6.

The error collection term lagged once has the right sign and it was significant at 1% level. This confirms the earlier results in the study that the variables in the model are co-integrated. It is important to note that the long-run relationship between economic growth and explanatory variables in the model is reflected by the coefficient of the ECM_{t-1} variable. Technically, the preceding evaluation indicates that there is no serious weakness in the model. The basic statistical requirements have to a large extent been satisfied. It can therefore be inferred that the empirical results of the model are significantly reliable.

The comparison between the general and the preferred models shows that the reduction process has eliminated most of the insignificant variables without losing important details. However, failure of FDI (d.LNFDI/GDP) t-value to enter automatically in the preferred model signals the insignificance of foreign direct investments impact on Tanzania's economic growth and development.

This observation is consistent with the findings of Carkovic and Levine's (2005) study of developing countries for the 1960-1995 period. The results of the preferred model (Table 6) show that the goodness of fit is satisfactory, as indicated by the adjusted R- squared = 0.7907, implying that variations in the model regressors explain about 79% of variations in economic growth over the 1990-2013 period. Therefore, variations of up to 21% in economic growth remain unexplained, hence captured by the pre-specified disturbance term. The F- statistics of 4.75 with the probability of 0.00012 implies a rejection of the null hypothesis that all the right hand variables except the constant have zero parameter coefficients. This implies that the model is significantly explained by the explanatory variables on its right hand side, hence acceptable in overall terms. Similarly, there is no indication of any serious autocorrelation problem considering the information given by the Durbin-Watson (D-W) statistic of 2.08, being just greater than the conventional mark of 2.0.

The coefficient of the FDI (d.LNFDI/GDP) has positive sign, but insignificant. A unit increase in the FDI stock results in a proportionate 8% increase in economic growth rate. This is inconsistency to the generic FDI-led growth literature's assertion that that FDI inflows have significant positive impact on the host country's economic growth (Cypher & Dietz, 2009; Jones & Wren, 2006; Crespo & Fontoura, 2005, Findlay, 1978). Therefore, this suggests that, overall, FDI has neither significant impact on Tanzania's economic growth nor on backward and forward linkages with key sectors. This observation is partly supported by the fact that there have been less than proportionate FDIs recorded in agriculture and tourism sectors despite their remarkable significance in terms of GDP contribution and so economic growth (BOT, NBS & TIC/TIR, 2008, 2012 ,2013, 2014). Regarding domestic investment (d.LNDCF/GDP), the coefficient is positive (0.04) but weaker than that of FDI (0.08). This is consistent with empirical literature that the contribution of FDI to economic growth is in most cases larger than the contribution of domestic investment (Borensztei, *et al.*, 1998). This implies that higher economic growth will be registered in Tanzania if her government puts in place mechanisms or incentives that attract FDI towards key economic sectors such as agriculture and tourism as opposed to the current situation whereby domestic investments dominate agriculture and tourism sectors.

The human skills capital stock proxied by secondary school enrolment growth rate (d.LNSSEGR) has a fairly strong positive coefficient, significant at 1% level. That is, a unit increase in human skills capital stock leads to proportionate 65% increase in economic growth rate. This is consistent with the empirically backed literature that human capital stock has significant positive impact on FDI-led growth (Marwah & Tavakoli, 2004; Bengoa & Sanchez-Robles, 2003; Nguyen, 2002). This suggests that human capital stock drives Tanzania's economic growth most than other forms of capital, calling for the need to give it top priority across all her development agenda.

On the other hand, government expenditure (d.LNGEX/GDP has a negative coefficient but significant at 5% level. This means that a unit increase in government expenditure results in a proportionate 31.9% fall in economic growth. The sign tallies with the expectation that government expenditure exerts downward pressure on FDI-led growth (Marwah & Tavakoli, 2004; Tian *et al*., 2004). Likewise, the inflation rate (d.LNINFR) being the proxy of macroeconomic environment stability has negative coefficient, significant at 5% level. This is in line with what is found in literature – that raising inflation negates economic growth of the host country (Marwah & Tavakoli, 2004; Tian *et al*., 2004). This suggests that the raising inflation rate has been exerting downward pressure on Tanzania's economic growth over the period.

CONCLUSION AND POLICY IMPLICATIONS

Conclusion

The overall objective of the study was to analyse the extent to which FDI inflows have contributed to Tanzania's economic growth for the period between 1990 and 2013. Using the error correction model (ECM) and ordinary least square (OLS) estimation techniques powered by STATA, the findings show that FDI has had an overall weak positive contribution towards the country's economic growth for the period, contrary to what is available in standard literature about FDI-led growth. Other variables included in the model appear to behave variously towards economic growth. While human skills capital stock, domestic capital formation, financial system and capital market efficiency (all lagged one period/year) have positive contribution towards economic growth, the inflation rate and government expenditure are found to have negative impact. The human skills capital stock variable (lagged one period/year) has proved to have strong influence on economic growth. Therefore, the country can take advantage of this variable in collaboration with others to promote growth and development.

FDI inflows trend reveals that mining and manufacturing sectors hold first place in FDI inflows, yet the sectors register the lowest contribution to overall GDP. Meanwhile, there has been less than proportionate FDI recorded in agricultural and tourism sectors, despite their importance and potential for foreign exchange earnings, economic growth and development. In short, FDI as an engine for economic growth of the host countries should not be taken as a guarantee; instead, host countries should put in place appropriate policies and institutions that will guide and/or direct FDIs in areas where the countries can draw maximum sustainable benefits.

Policy Implications

With reference to the discussion on the empirical findings of this article, deliberate actions need to be taken on FDI in terms of policy formulation and implementation, particularly in monitoring and evaluation. Precisely, for FDI to bring about significant positive effects in Tanzania, policies and other necessary

measures should be put in place to attract, target and channel the same to sectors with trickle down effects to most Tanzanians like agriculture and tourism.

Although the rationale for FDI remains apparently sound, the applicable processes in attracting such investment have not been very ideal in terms of targeting, transparency, accountability and other key aspects of good governance. Foreign investment in the mining sector, manufacturing industry, and others seems to have spearheaded foreign rather than domestic interests. For instance, the gains received to-date from the mineral sector including employment, government tax and non-tax revenues remain negligible by any measure, relative to what Tanzania would potentially have realised, had there been better agreements or contracts with multinational companies. To this end, Tanzania still lacks good and comprehensive investment laws that would help derive maximum benefits from FDI. Therefore, there is a need for strong institutions (armed with checks and balances) for managing and administering FDI in the country. These should prioritise national interests before everything else and should be guided by the principles of global best practices, including good governance.

Among the challenges facing Tanzania and other developing African countries is how to strategically capture and exploit growth enhancing FDI in order to improve economic performance and maximise socioeconomic benefits. Incentives to attract FDI should aim at building a robust lead in economic growth and ensuring sustainable socioeconomic development. Domestic policies on FDI should also be designated to create capacity for absorption and diffusion of skills, knowledge and technology to domestic firms. This can be achieved through human capital development (through strategic education) and technological competency of local labour force (through short- and long-term but focused training) and through research and development (R & D) centres.

As noted earlier, FDI is not evenly distributed, especially among sectors with the highest potential for growth. Agriculture and tourism sectors relative to their importance have been marginalised in terms of FDI inflows. Inadequacy of investment in these sectors is partly due to lack of specific incentives as well as absence of domestic and international promotional efforts that would strengthen the sectors' comparative advantages, especially after the enactment of the Land (Amendment) Act in 2004. Therefore, there is an urgent need for identification of all potentials in specific areas e.g. agriculture and tourism sectors for new investment ventures that will create linkages with other sectors of the economy, especially value addition through agro-processing. New constructions and improvements in existing infrastructure such as roads, railways, airways and utilities (electricity, water, telecommunication, etc.) would be a positive step towards attracting investment in these sectors.

Again Tanzania needs to rethink about its policy on FDI in minerals. The issues of ownership and employment therein should be re-formulated so that mineral

benefits can proportionately accrue to the investors and the economy as a whole. Tanzania can borrow from the success story of Botswana. According to Investment Policy Review–Botswana (UN/WIR, 2003), the 50-50% Debswana joint venture between DeBeers and the government of Botswana played a critical role in enabling the local economy share the gains derived from the mineral investment. If assimilated in Tanzania, the measure would result into long-run domestic capital formation which is key to stimulating sustainable socioeconomic development.

REFERENCES

Alfaro, L. (2003). Foreign direct investment and growth: Does the sector matter? Unpublished manuscript, Harvard Business School.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: The role of local financial markets. *Journal of International Economics, 64*(1), 89-112.

Bagachwa, M. S. D. (1992). The challenges and potentials of the new investment promotion policy. In Bagachwa, M. S. D. (1992)(ed). *Market reforms and parastatal restructuring*; Dar es Salaam: Dar es Salaam University Press,

Balasubramanyam, V., Salisu, M., & Sapsford, D. (1996). FDI and growth in EP and IS countries. *The Economic Journal, 106*(434), 92-105.

Bank of Tanzania, Tanzania Investment Centre, & National Bureau of Statistics (1995, 1998, 2000, 2003, 2007, 2010, 2012,2013, 2014). *Report on foreign private investments in Tanzania*. Dar es Salaam: Government Printers.

Barro, R. (1999). Inequality, growth and investment. NBER Working Paper, No. 708.

Bengoa, M., & Sanchez-Robles (2003). FDI, economic freedom, and growth: New evidence from Latin America. *European Journal of Political Economy, 19*, 529-545.

Bende-Nabende, A. (2001). FDI, regional economic integration and endogenous growth: Some evidence from Southeast Asia. *Pacific Economic Review, 6*(3), 383-399.

Blomström, M., & Kokko, A. (2003). Human capital and inward FDI. CEPR Working Paper No. 167.

Borensztein, E., Gregorio, J., & Lee, J. (1998). How does foreign direct investment affect economic growth?. *Journal of International Economics, 45*, 115-135.

Carkovic, M., & Levine, R. (2005). Does foreign direct investment accelerate economic growth? In Moran, T., Graham, E., & Blomström, M. (eds). *Does foreign direct investment promotes development*? (pp. 195-220). Institute for International Economics.

Crespo, N., & Fontoura, M. P. (2005). *Determinant factors of FDI spillovers – What do we Really Know?* ISEG- Universidade Técnica de Lisboa.

Cypher, J., M., & Dietz, J. L. (2009). *The process of economic development* (3rd edition). London and New York: Routledge

De Mello, L. (1996). *Foreign direct investment, international knowledge transfers, and endogenous growth: Time series evidences.* Kent: Department of Economics, University of Kent, UK.

Findlay, R. (1978). Relative backwardness, direct investment, and the transfer of technology: A single dynamic model. *Quarterly Journal of Economics, 92*, 1-16

Hendry, D. F. (1996). On the constancy of time-series econometric equations. *Economic and Social Review, 27*, 401-422

Hermes, N., & Lensink**,** R. (2003). Foreign direct investment, financial development and economic growth. *Journal of Development Studies, 40*, 142-163

Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control, 12*(2-3), 231-254.

Johansen, S., & Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration – with application to the demand for money. *Oxford Bulletin of Economics and Statistics, 52*(2), 169-210

Jones, J., & Wren, C. (2006). *Foreign direct investment and the regional economy.* Aldershot: Ashgate Press.

Koutsoyiannis, A. (1973). *Theory of econometrics: An introductory exposition of econometric methods.* London: McMillan Press.

Kumar A. (2007). Does foreign direct investment help emerging economies?" *The Federal Reserve Bank of Dallas, Economic Letter, 2* (1).

Lall, S. (1980). Vertical interfirm linkages in LDCs: An empirical study. *Oxford Bulletin of Economics, 42*, 203-226.

Mans, D. (1993). Tanzania: Resolute action. In Husain, I., Farquee & Rashid (eds.). *Adjustment in Africa: Lessons from country case studies.* World Bank, Washington DC.

Marwah, K., & Tavakoli, A. (2004). The effects of foreign capital and imports on economic growth. *Journal of Asian Economics, 15*, 399-413**.**

Nguyen Thi Phong Hoa (2002*).* Contribution of foreign direct investment to poverty reduction: The case of Vietnam, Mimeo.

OECD (2002). Main determinants and impacts of FDI on China's economy. Working Papers on International Investments- Number 2000/4.

Rweyemamu, J. (1973). *Underdevelopment and industrialisation in Tanzania: A study of perverse capitalist development.* Oxford: OUP.

Tian, X., Lin, S., & Lo, V. I. (2004). Foreign direct investment and economic performance in transition economies: Evidence from China. *Post-Communist Economies*, *6*(4), 497-510.

United Nations (1990, 1995, 2000, 2003, 2007, 2008, 2010; 2012; 2013, 2014). *World Investment Report*, Geneva: United Nations Publication.

Wang, J., & Blomström, M. (1992). Foreign investment and technology transfer: A simple model. *European Economic Review, 36*, 137-155.