

THE RELATIONSHIP BETWEEN BUSINESS ENVIRONMENT AND FOREIGN DIRECT INVESTMENT IN DEVELOPING COUNTRIES

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Abstract: *This paper examines the effect of business environment indicators (time required to start a business, time required to enforce a contract and time to resolve insolvency) on FDI inflows in a large sample of developing countries. The empirical analysis utilizes data for the 2003-2006 period pooled across a sample of eighty-eight developing countries. The results obtained through fixed effects estimation provide strong evidence that the time required to start a business is negatively and statistically significantly correlated with FDI inflows. While the time required to enforce a contract is found to be negatively correlated with FDI inflows, the coefficient was however statistically insignificant. Economic growth and trade openness are also found to be fundamental in terms of FDI inflows. In additions, political stability is negatively and statistically significantly correlated with FDI inflows. The results obtained here lead to the conclusion that the business environment and in particular the time required to start a business can matter for FDI inflows.*

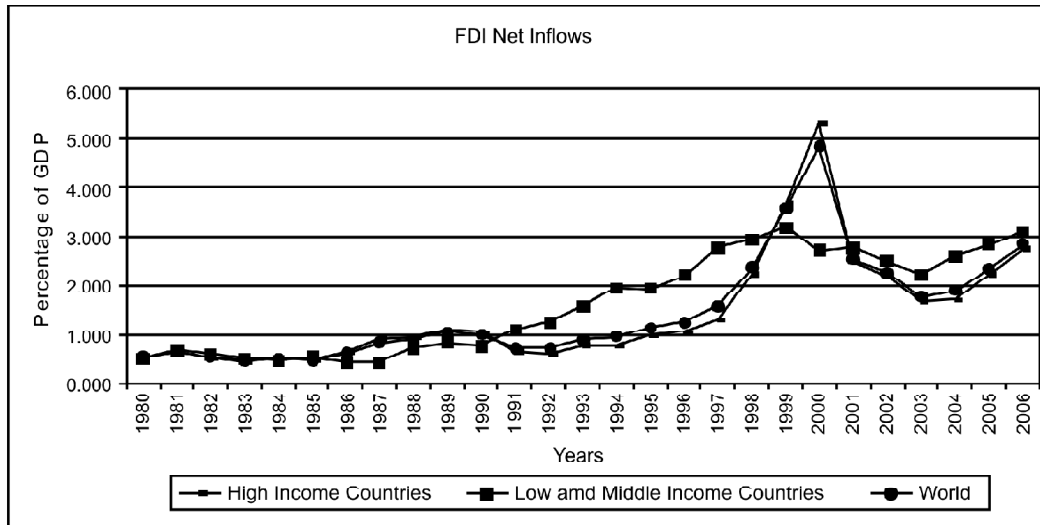
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INTRODUCTION

There has been an increasing level of foreign direct investment (FDI) inflows by Multinational Corporations (MNCs) to the developing countries, countries in the low and middle-income bracket (Figure 1). Past studies have revealed the importance of FDI in global capital markets. According to Summers (1999) and Saggi (2003) the number of countries that can be said to be part of the global capital market is likewise far larger today than it was at the beginning of the 1990s while Athukorala and Rajapatirana (2003) note that Asian countries experienced far greater foreign capital inflows relative to the size of the economy compared to the Latin American countries. UNCTAD (2006, Chapter 1) notes that the number of Trans-national Corporations (TNCs) worldwide has risen to about 77,000 of which more than 20,000 TNCs originate in developing countries. TNCs based in developing countries and in South East Europe and the CIS are estimated to have accounted for about US\$2.6 trillion in sales, employed 7.4 million workers and generated more than US\$500 billion in value added outside their home countries in 2005 (UNCTAD, 2006, Chapter 1).

Much of the wealth creation, employment generation and technological innovation around the world are the works of MNCs. MNCs presence in the developing countries (home to some 2.6 billion people, UNDP, 2007, p. 2) have contributed to improvements in human conditions in many different ways. FDI by MNCs to developing countries

Figure 1



contributes positively to their economic growth and development in many ways: transfer of financial resources; transfer of technology and skills; improves income distribution through job creation; development of marketing and procurement networks; suppliers of production inputs; and promotion of industrialisation.

Much of the global FDI is driven by MNCs and their expansion in international production is attributable to a combination of factors (policy liberalization, rapid technological change and increasing competition, among others) that affects differently for different industries and different countries. The World Bank (2002, p. 39) notes that FDI has responded to government decisions on privatization programs and good governance that the huge surge in FDI to China with the introduction of market reforms is the most spectacular example to note. In a study in connection with privatization in Latin America, Baer (1994) noted that privatization had an impact on foreign investments in many Latin American countries where the presence of foreign capital has increased as the presence of state has declined. Globerman and Shapiro (2002) and Globerman, Shapiro and Tang (2004) have suggested that good governance is particularly important for promoting FDI in developing countries. Financial sector liberalisation has also facilitated the entry of financial institutions into domestic capital markets and global capital markets have become more integrated as a result of liberalisation, among other factors (Pazarbasioglu, Goswami and Ree, 2007). Increased openness to capital flows has proved essential for countries to rise from lower to middle-income country status and has strengthened the stability among industrial countries (Kose, Prasad, Rogoff and Wei, 2007).

MNCs in developing countries are attracted by several factors, one of which is a conducive business environment of the host country. Where business environment is highly regulated and ease of doing business is a constraint, potential investors may be

deterred and seek other locations where ease of doing business favours them and may be valued highly. While literature has raised the consequences of difficult business environment on growth, policymakers and business leaders in developing countries have begun to respond to this challenge. One of the manifestations of their response has been to introduce changes in the business environment at the national level by introducing policies and legislation pertaining to business formation process, contract enforcement, property registration and investment protection, among others. Recognising the benefits from hosting FDI, several developing countries have attempted to attract FDI by reforming their business environment. For example, the *Doing Business 2007* report of the World Bank (2006) noted that some two hundred and thirteen reforms were introduced in 112 countries around the world in between January 2005 and April 2006 where reforming governments simplified business regulations, strengthened property rights, eased tax burdens, increased access to credits and reduced costs of exporting and importing.

While the above series of reforms may be considered significant steps towards improving the developing country business environment, whether these have helped to attract foreign direct investment is an important empirical question. But rarely has this question been systematically investigated in an international context particularly involving developing countries where large volumes of FDI inflows have become an important feature of international capital flows in recent times (Figure 1 and also discussed in section 2). In light of such major reforms taking place around the globe as noted by the World Bank (2006), it is important for the developing countries as hosts to significant FDI inflows to discern if their business environment matters for FDI inflows. This study controlling for a number of commonly known conventional determinants of FDI, seeks to empirically confirm the direct effect of business environment on FDI in developing countries. As part of the empirical procedure, it utilises panel data for the 2003-2006 period for a sample of eighty-eight developing countries (listed in section 5.0). The empirical work involves estimation of reduced form equations using annual data for selected business environment variables, namely time it takes in starting businesses, contract enforcement and resolving insolvencies. At the same time, the analytical procedure also controls for other known and potential influences (economic growth, openness, market size and political stability) on FDI inflows.

The selection of the developing countries is due to several reasons. First, on average, developing countries have attracted high levels of FDI (Figure 1) as opposed to high-income countries since 1990. Second, the developing countries have large population numbers and therefore provide a wide demographic coverage in a global context. Third, the selection of countries is also based on availability of consistent set of business environment data for sample years (discussed in section five) as panel data empirical analysis requires data consistency across countries and time. Published data on indicators of business environment that remained largely absent for developing countries have now started to appear that can allow researchers a modest start towards quantifying business environment contributors to FDI inflows.

This paper makes a contribution to the literature in several ways. First, it attempts to link the three aspects of business environment (time required to start a business, time required to enforce a contract and time to resolve insolvency) with FDI inflows, an area of research that is highly important, yet rare in the business economics discipline. Second, the estimation phase of this paper controls for variables that are widely thought to influence FDI inflows (economic growth, openness to trade, market size and political stability) thus minimizing the miss-specification of the estimable model. Third, the sample includes a total of eighty-eight developing countries that allows drawing policy implications with greater strength and meaning.

The remainder of the paper is structured as follows. Section two presents some stylized facts on FDI diffusion and business environment in developing countries. Section three reviews the literature, outlines the analytical model and the choice of variables. Section four discusses the estimation procedure and the empirical findings. Section five concludes.

FDI AND THE BUSINESS ENVIRONMENT: SOME STYLIZED FACTS

Since 1980s, developing countries have gained increasing importance as recipients of FDI in terms of inward flows and stocks. For example, their share of total world inflows rose from an average of 20 per cent in 1978-1980 to an average of 35 per cent in 2003-2005 and they continue to strengthen their global position with an investment of some US\$117 billion in 2005 (UNCTAD, 2006, Chapter 1). Data in Table 1 confirms the rising trend in FDI in several regions and income category of countries around the globe.

Table 1
FDI, Net Inflows (% of GDP) by Region and Income Category

<i>Category</i>	<i>Year 1990</i>	<i>Year 1995</i>	<i>Year 2000</i>	<i>Year 2005</i>	<i>Year 2006</i>
Low income	0.4	1.5	0.6	1.5	3.1
Middle income	0.9	2.1	3.1	3.0	3.1
Lower middle income	0.6	1.9	3.0	3.3	2.9
Upper middle income	1.4	2.7	3.3	2.8	3.3
Low and middle income	0.8	2.0	2.7	2.8	3.1
East Asia and Pacific	1.6	4.0	2.8	3.2	2.9
Europe and Central Asia	...	1.7	3.1	3.4	4.6
Latin America and the Caribbean	0.7	1.8	3.9	2.7	2.4
Middle East and North Africa	0.6	-0.2	0.4	2.4	4.2
South Asia	0.1	0.6	0.6	1.0	2.0
Sub-Saharan Africa	...	1.4	1.8	2.7	2.1
High income	1.0	0.9	5.4	2.1	2.7
Europe EMU	1.1	1.1	10.5	3.2	3.8

Source: The World Bank (2008).

... indicates data not available.

According to the data in Table 1, in terms of regional inflows of FDI, Europe and Central Asia ranked the top between 2000 and 2006 followed by Europe EMU and the Middle East and North Africa in the second and third place respectively in 2006. FDI inflows to the Latin America and the Caribbean region declined from a high of 3.9 per cent of GDP in 2000 to 2.4 per cent of GDP in 2006 (Table 2). FDI inflows to East Asia and the Pacific also fell from 3.2 per cent of GDP in 2005 to 2.9 per cent of GDP in 2006.

FDI inflows as a percentage of GDP in terms of income category of countries were recorded at a high of 3.3 in 2006 for the upper-middle-income countries. The low-income category of countries revealed a significant improvement in FDI inflows as a percentage of GDP, rising from 0.6 in 2000 to 3.1 in 2006. At the same time, high-income countries recorded a significant slump in their FDI inflows as a percentage of GDP, falling from 5.4 in 2000 to 2.7 in 2006.

Table 2 presents data on some aspects of business environment by income category. In fact, seven business environment indicators are presented that may directly matter to domestic as well as foreign investors. As per the data on seven business environment indicators, the high-income countries come out to be the best on all of the seven measures. On most counts of business environment indicators, the gaps are still wide between the low-income and high-income countries. For example, on average it takes 119.8 days to register a property in the low-income countries as opposed to 49.1 days in the high-income countries. Similarly, on average, it takes 55.1 days to start a business in low-income countries as opposed to 25.0 days in high-income countries. However, there is one aspect of the business environment where the gap is not so significant between the low and high-income countries. This is to do with the number of start-up procedures to register a business. In the low-income countries, on average there are 10.2 start-up procedures to register a business as opposed to 7.3 in high-income countries.

Table 2
Some Aspects of Business Environment in 2007 by Income Category

<i>Business environment indicator</i>	<i>Low-income countries</i>	<i>Lower middle-income countries</i>	<i>Upper middle-income countries</i>	<i>High-income countries</i>
Start-up procedures to register a business (number)	10.2	9.7	9.0	7.3
Time required to build a warehouse (days)	295.0	212.2	217.6	165.8
Time required to enforce a contract (days)	606.4	661.9	625	516.1
Time required to register a property (days)	119.8	78.8	72.4	49.1
Time required to start a business (days)	55.1	40.7	56.7	25.0
Time to prepare and pay taxes (hours)	327.3	388.4	370.6	193.3
Time to resolve insolvency (years)	3.6	3.5	2.9	2.1

Source: World Bank (2008).

While the inflows of FDI varies from country to country, the state of nations business environment certainly matters for international business conglomerates like the MNCs. Countries engaged in improving their business environment are likely to attract positive response from MNCs in the form of FDI as the business environment is likely to influence MNCs output and productivity. This is particularly important for the developing economies long-term investment and development plans as FDI has been noted to become the largest and most resilient form of capital flow (World Bank, 2003, p. 309).

LITERATURE, ANALYTICAL FRAMEWORK AND DISCUSSION OF VARIABLES

The theoretical explanation of the presence of FDI by MNCs has been developed over couple of decades. Among others, some of the core theoretical developments include the product life cycle theory (Vernon, 1966); the industrial organisation theory (Hymer, 1967; Kindleberg, 1969, and Caves, 1971); the internalization theory (Rugman, 1979, 1986, and Hennart, 1982); the location theory (Smith, 1981); and the factor endowment-market failure paradigm (Dunning, 1988).

The basis of location theory relates to host country attributes such as distance to markets, transportation costs, availability of cheap labour, and availability of natural resources (Smith, 1981) in determining FDI inflows. These host country attributes are considered as pull factors and MNCs locate their production operations so as to take advantage as these may positively benefit them. Lin and Yeh (2004) also note that the extension of location theory to international plant location takes the additional factors of trade barriers and tax incentives into consideration.

The industrial organisation theory largely focuses on MNCs capacity in a range of areas that gives them a competitive edge over the host country enterprises. The proponents of industrial organisation theory (Hymer, 1967; Kindleberg, 1969; and Caves, 1971) explain that foreign enterprises are able to compete with local enterprises (who have better knowledge), because foreign enterprises have monopolistic advantages in capital (financial, human and physical), technology, production, marketing and organisation. These advantages allow MNCs to quickly establish their production, marketing and distribution links, giving them a competitive advantage over domestic enterprises.

The product life cycle theory (Vernon, 1966) draws on to elements of the location as well as the industrial organisation theory. Vernon (1966) argues that location attributes of the host country together with monopolistic advantages of the host country allows firms to move to other developing countries after first introducing their product in few developed countries and then to other developed as well as developing countries.

Rugman (1979 and 1986) and Hennart (1982) explained the existence of FDI by MNCs in terms of the internalisation theory. Their theory is based on the thesis that there is no perfect market for the intermediate products, monopolistic advantages or proprietary assets owned by the enterprises. These authors argue that in order to maximise the benefits of the proprietary intermediate products, enterprises have to engage in direct management control of foreign investment (Lin and Yeh, 2004).

Another theoretical framework that attempts to explain the presence of FDI by MNCs is Dunning's (1988) factor endowment and market failure paradigm. Lin and Yeh (2004) provide a good review of Dunning's (1988) framework. Dunning's (1988) framework draws on various aspects of all of the above core theories and attempts to explain three main phenomena's related to MNCs production. In doing so, Dunning (1988) considers location, ownership and internalisation advantages to explain MNCs international production. In terms of location advantages, Dunning (1988) relates this to host country's transport costs, production costs, trade barriers, investment incentives and so on. The ownership advantages include both the tangible and intangible aspects (market access, patents, trade make, economies of scale and international arbitraging). The internalization advantages refer to the enterprises organisational capabilities in international business transactions, quality control, price discrimination, avoidance of buyer uncertainty and avoidance of property right infringement. The extent and forms of these advantages are determined by factor endowments of the host and home countries (Lin and Yeh, 2004).

In a more recent development, Chen and Chen (1998), Coveillo and Munro (1997) and Kohn, 1997), used the concept of network to explain MNCs location choice. These authors argue that once a powerful member in a network of enterprises moves production abroad, other members in the transactional network tend to follow these powerful members abroad. According to Chen and Chen (1998), this form of network linkage can be considered as a form of ownership advantages over local enterprises in host countries.

While the theoretical framework determining FDI inflows is well established, a number of empirical studies also exist that have used various theoretical frameworks to determine FDI inflows. The overall determinants of FDI have been extensively studied. Caves (1996), De Mello (1997) and the World Bank (2001) provide a comprehensive review of such studies. Several other studies have also looked at the effects of FDI on host countries, majority of which note beneficial effects. The findings of some of the recent studies continue to strengthen the desired effects of FDI.

FDI has several beneficial impact on growth in a range of countries as shown in Ram and Zhang (2002); Hsiao and Shen (2003); Saggi (2003); Mariotti, Mutinelli and Piscitello (2003); Wang, Liu and Wei (2004); Li and Lui (2005); Fedderke and Romm (2006); and Duttaray, Dutt and Mukhopadhyay (2008). Several other beneficial effects are also noted by other researchers. For example, giving rise to scale economies at firm level (Markusen and Venables, 1999); productivity or efficiency benefits in host country's local firms (Blomstrom and Kokka, 1998, p. 249); a positive effect on labor productivity as foreign affiliates may produce externalities through training local employees and potential increases in local competition (Dimelis and Louri, 2002); decrease in growth gaps between source and host countries (Choi, 2004); domestic firms becoming more efficient (Demelis and Louri, 2002); and helps increasing growth by introducing new technologies (Hermes and Lensink, 2003). There are also a range of negative effects of FDI as noted in Ram and Zhang (2002).

Past researchers have studied several variables as potential determinants of FDI in diverse contexts using various theoretical perspectives as guides in variable selection

(for example; Hsiao and Shen, 2003; Mariotti *et al.*, 2003; Coughlin and Segev, 2000; and Markusen and Veneables, 1999). The analytical framework of FDI to developing countries in this study can be considered from Dunning's (1988) conceptualization of FDI framework as a number of factors may determine their presence.

Such variables can be represented in a structural model (equation 1) that explains their influences on FDI. The estimation framework is formulated such that key influences on FDI are unfolded. These issues include: (1) the effect of business indicators on FDI and (2) controlling other potential factors determining FDI. The control variables used in the exact specification of this equation are predominantly the main conventional variables used in many cross-section regression models. These include (i) economic growth; (ii) market size; (iii) openness; and (iv) political stability.

The general structural equation takes the following form:

$$fdi_{it} = \Psi_0 + \Psi_1 fdi_{(t-1),it} + \Psi_2 bus_{it} + \Psi_3 ce_{it} + \Psi_4 ins_{it} + \Psi_5 eg_{it} + \Psi_6 mkt_{it} + \Psi_7 trd_{it} + \Psi_8 ps_{it} + \Psi_9 time_{it} + v_{it} \quad (1)$$

where, *fdi* denotes the inflows of FDI as a percentage of gross domestic product, *bus* is time to start a business, *ce* is time to enforce a contract; *ins* is time to resolve an insolvency, *eg* is economic growth; *mkt* is market size; *trd* is trade openness; *ps* is political stability, *time* is time trend, μ represents all unobservable variables, *i* is the country, and *t* is the time period. The error term in equation v_{it} with the assumption that $v_{it} \approx iid(0, \sigma^2)$. All variable names, definitions and measures are presented in Table 3. The sample years range from 2003 to 2006.

Table 3
Variable Definition and Data Sources

<i>Variable</i>	<i>Definition</i>	<i>Measure</i>	<i>Source of data</i>
<i>fdi</i>	Foreign direct investment	Foreign direct investment, net inflows as a percentage of GDP	World Bank (2008)
<i>eg</i>	Economic growth	Real GDP growth (annual percentage)	World Bank (2008)
<i>mkt</i>	Market size	Share of population in world	Authors calculation based on World Bank (2006) data
<i>trd</i>	Trade openness	Trade as a percentage of GDP	World Bank (2008)
<i>ps</i>	Political stability	This is measured on a scale of 1 to 7 with 1 representing highest degree of political freedom and seven the worst	Freedom House
<i>bus</i>	Business	Time required to start a business (days)	World Bank (2008)
<i>ce</i>	Contract enforcement	Time required to enforce a contract (days)	World Bank (2008)
<i>ins</i>	Insolvency	Time to resolve insolvency (years)	World Bank (2008)

The theoretical justifications for the right hand side variables in equation (1) are discussed as follows.

Business Environment Indicators

Easing the process of business formation will lead to establishment of more businesses. Making the process simple, easier and straightforward for business formation, for creation of property rights institutions and making them effective, for protection of investment through such institutions, and for development of enforcement mechanism for business contracts if they are violated can thus allow businesses to succeed. Even pre-existing informal sector businesses may decide to register in order to take advantage of the fact that formally registered businesses grow larger because they can supply their products and services to larger customers and export. Thus, it can be hypothesized that the easier the regulatory process for business formation, the more the FDI inflows.

The absence of a legal mechanism for enforcing business contracts can lead to fewer business transactions. It is because if there is no enforcement mechanism in place, some business partners may not comply with the provisions of a contract. Disputes may arise but mechanisms to efficiently resolve them may not be there. The cost of delay might be enormous, and it may also lead to business loss or business failure. Businesses in this situation will have to be confined within their own social network to do business. This will reduce the size of the market, adversely affecting efficiency and scale economies. It can be hypothesized that a business environment conducive to enforcing business contracts will help to create more compliance-oriented businesses and those businesses that comply with business contract will also be more amenable to comply with business regulation and policies. One of the key variables indicating a changing business environment is creation of property rights. As Acemoglu, Johnson and Robinson (2004, p. 9) have pointed out, good institutions are key to economic growth and good institutions are those that secure and protect property rights. When businesses earn entitlement for legal protection through registration, it also ensures a reasonable level of continuity. It then creates incentives for using resources efficiently.

FDI Control Variables

Among the control variables is the performance of the domestic economy. FDI by TNCs is essentially attracted by robust domestic *economic growth (eg)*, indicating that economic conditions are suitable for investment, production and sales. A growing economy indicates the extent to which factors favour foreign investment (economic policies, rule of law, corporate governance conduct and institutions of the host economy). An economy, whose economic and institutional infrastructure favours production encourages individuals to engage in creation and transaction of goods and services, contributes to good growth and is also an attractant to FDI. An economy in which economic policies and rules are changing frequently may indicate an unstable economic environment and may deter potential investors.

Market size (mkt) is another factor that is considered to be crucial in MNC location preference as they are attracted by large and growing markets because such markets provide opportunities for profit growth as well as economies of scale. In their study, Urata and Kawai (2000) found the presence of a sizeable local market as an important demand factor in host countries that would attract FDI by Japanese small and medium enterprises. The World Bank (2002, p. 39) notes that market size appears to be the major explanation of the concentration of FDI in the top ten recipients of FDI (China, Brazil, Mexico, Argentina, Poland, Chile, Malaysia, Korea, Thailand, and Venezuela). These arguments are made within the context of the host country as a potential market for the MNC. For example, MNCs presence in a large country like China can also mean that it can be a potential market for MNCs product, among other factors.

The argument for *trade openness (trd)* is that a higher level of openness can attract foreign investors, which is crucial for faster growth. Evidence is ample to indicate that national economies cannot prosper unless they are open and integrated into the world economy (see for example, Rattso and Torvik, 1998). A large number of studies used trade shares in GDP as basic measures of openness and found a positive and strong relationship with growth (see Harrison, 1996, Rodrik, 2001; and Yannikkaya, 2003, for a review). Trade provides access for a country to the advances of technological knowledge of its trade partners, allows producers to access bigger markets, encourages the development of research and development and provides access to investment and intermediate goods (Yannikkaya, 2003).

The *political stability* indicator reflects the extent to which the rule of law is observed: freedom to choose can enhance long-term economic capacity (Van Den Berg 2001). Political instability can impact state institutions and may mean that the governing régime is vulnerable; thus potential investors may not have much confidence in the government, its policies and the economy. Political instability manifested in unexpected changes in the rules under which businesses operate, instability in a host country's government, and changes in monetary and fiscal policies increase(s) the risk of doing business (Brewer, 1993) and, investors will shy away from countries rife with frequent political unrest and regime changes (Levis, 1979). Future cash flow and rate of return on FDI will be affected by political risk (Butler and Joaquin, 1998). Thus, liberalized and stable governments and regulatory regimes in host country are essential in terms of attracting foreign investors.

DATA, ESTIMATION PROCEDURE AND EMPIRICAL FINDINGS

The estimation methodology is primarily dictated by data availability. While long-term time series data on FDI inflows and control variables are available, this is not the case for business indicators. Consistent measures of business indicators are available for years 2003-2006 for the eighty-eight developing countries. Further, not all of the sample countries have consistent series of data, and where data is available the time span is limited.

The sample countries are Albania; Angola; Argentina; Azerbaijan; Bangladesh; Belarus; Bolivia; Bosnia and Herzegovina; Botswana; Brazil; Bulgaria; Burkina Faso;

Burundi; Cameroon; Central African Republic; Chad; Chile; China; Colombia; Congo, Dem. Rep.; Congo, Rep.; Costa Rica; Cote d'Ivoire; Croatia; Dominican Republic; Ecuador; Egypt, Arab Rep.; El Salvador; Ethiopia; Georgia; Ghana; Haiti; Honduras; Hong Kong, China; Hungary; India; Indonesia; Iran, Islamic Rep.; Israel; Jamaica; Jordan; Kazakhstan; Kenya; Korea, Rep.; Kyrgyz Republic; Lao PDR; Latvia; Lebanon; Lesotho; Lithuania; Macedonia, FYR; Malawi; Malaysia; Mali; Mauritania; Mexico; Moldova; Mongolia; Morocco; Mozambique; Nepal; Nicaragua; Nigeria; Pakistan; Panama; Paraguay; Peru; Philippines; Romania; Russian Federation; Saudi Arabia; Singapore; Slovak Republic; Slovenia; South Africa; Sri Lanka; Syrian Arab Republic; Thailand; Togo; Tunisia; Turkey; Uganda; Ukraine; Uruguay; Uzbekistan; Venezuela, RB; Vietnam; and Zambia.

This study adopts the panel data estimation procedure. It combines cross-country and time-series data involving eighty-eight countries and four time periods, constituting 352 observations. Estimating models involving cross-sectional, time-series data account for both fixed and random effects. Ordinary least squares estimation of such data would lead to biased estimates, as this method of estimation assumes a single set of slope coefficients and one intercept. Fixed effects models are usually based on the assumption that the slopes are common but that each cross-sectional unit has its own intercept. The random effects model assumes that the intercepts are drawn from a common distribution with a mean and constant variance. The overall estimation procedure follows the generalized least squares (GLS) method. The model here is estimated using the panel data estimation technique, thus accounting for the fixed and random effects. The Hausman (1978) test was used to determine if there were significant differences between the fixed and the random effect models. The Hausman test results confirmed that the two model estimators are not statistically different. The fixed effects estimation results are used for discussion in this section.

Table 4
Descriptive Statistics

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<i>fdi</i>	352	4.3	5.2	-4.3	45.1
<i>eg</i>	352	6.0	3.9	-7.8	34.5
<i>mkt</i>	352	0.89	2.76	0.028	20.4
<i>trd</i>	352	91.4	59.7	26.4	462.5
<i>ps</i>	352	3.7	1.9	1.00	7.00
<i>bus</i>	352	54.8	40.4	6.0	203.0
<i>ce</i>	352	539.8	276.1	120.0	1510.0
<i>ins</i>	352	3.7	1.8	0.8	11.3

Table 4 reports the descriptive statistics while Table 5 presents that results obtained through the fixed effects estimation procedure. Table 5 reports various specifications of equation (2). Specification 1 tests the effects of all the control variables while specifications (2) to (4) test the effects of business indicators on FDI separately while controlling for

all other influences on FDI. Specification (5) tests the full model using all three business indicators together with the control variables. The results are considered to be robust given the use of pooled data. The adjusted R-square ranging from 0.45 to 0.47 is considered satisfactory for models utilizing pooled data. Several variables show the expected sign and are statistically significant. A number of variables produced statistically significant and consistent effects throughout the various specifications. Some of the business indicators also produced expected results. These are discussed as follows.

Table 5
Regression Results of the Effects of Business Environment on FDI Inflows

<i>Variables</i>	<i>Specification 1</i>	<i>Specification 2</i>	<i>Specification 3</i>	<i>Specification 4</i>	<i>Specification 5</i>
<i>constant</i>	0.129 -0.238	0.531 -0.832	0.343 -0.515	-0.512 -0.803	0.152 -0.202
$(fdi/gdp)_{t-1}$	0.012 -0.395	0.089 -0.298	0.013 -0.436	0.009 -0.323	0.005 -0.176
<i>eg</i>	0.119 -2.933	0.119 (2.932)*	0.118 (2.895)*	0.116 (2.877)*	0.104 (2.545)**
<i>trd</i>	0.038 (14.380)*	0.036 (13.910)*	0.037 (13.530)*	0.038 (14.360)*	0.038 (13.670)*
<i>mkt</i>	-0.047 (0.970)	-0.045 (0.941)	-0.044 (0.902)	-0.055 (1.102)	-0.053 (1.068)
<i>ps</i>	-0.189 (2.477)**	-0.199 (2.595)*	-0.191 (2.504)**	-0.167 (2.177)**	-0.186 (2.425)**
<i>time trend</i>	0.112 (0.889)	0.086 (0.679)	0.109 (0.874)	0.113 (0.897)	0.081 (0.641)
<i>bs</i>	...	-0.004 (1.193)	...	...	-0.008 (2.016)**
<i>ce</i>	...	...	-0.0003 (0.556)	...	-0.0004 (0.797)
<i>ins</i>	...	...	...	0.129 (1.634)***	0.21 (2.452)**
F	49.2	42.5	42.3	42.9	34.8
Adjusted R ²	0.46	0.46	0.45	0.46	0.47
N	352	352	352	352	352
No. Countries	72	72	72	72	72
Time period	2003-2006	2003-2006	2003-2006	2003-2006	2003-2006

Note: t-statistics are in parentheses.

*, **, and *** indicates statistically significant at the 1, 5 and 10 per cent levels respectively.

... indicates variable not tested.

Effect of Business Indicators

Does business environment matter for FDI inflows in developing countries? The empirical evidence in Table 5 suggests that business environment indicators do matter

for FDI inflows in developing countries. Table 5 presents the coefficients and t-statistics of the effect of time required to start a business (*bus*), time required to enforce a contract (*ce*) and time required to resolve insolvency (*ins*) on FDI together with the results of the control variables. Standard determinants of FDI established in the past literature are controlled in all of the specifications. The results of *bus* and *ce* in specifications (2) and (3) respectively provide evidence that they are negatively correlated with FDI as per the a priori expectation. When the complete model is tested (specification 5) the results in Table 5 reveal that the coefficient of *bs* has the expected negative sign and is statistically significant at the 5 per cent level suggesting a strong effect of time required to start a business on FDI inflows. The results of *bs* leads to the suggestion as time required to start business decreases, FDI inflows increase. Table 5 also shows the results of the effect of contract enforcement (*ce*) on FDI. The result is as expected with a negative coefficient. While *ce* is negatively correlated with FDI, it is statistically insignificant thus indicating a weak effect of *ce* on FDI inflows. The finding of *ins* (time to resolve insolvency) is contrary to a priori expectations. The coefficient of *ins* is positive and statistically significant.

Effect of FDI Control Variables

Turning to the control variables, several of the outcomes for a number of variables are consistent with the a priori expectations. The results of the economic growth variable are as per the expectations. The economic growth (*eg*) coefficient is positive and statistically significant at the 1 and 5 per cent levels. The positive coefficient obtained indicates that economic growth is fundamental in terms of FDI inflows. The level of trade openness and its relationship to FDI is also measured. As expected, the coefficient of trade openness (*trd*) is positive and statistically significant at the 1 per cent level across all five specifications. The results of this variable indicate that the greater the levels of openness, the higher the FDI inflows. The political stability (*ps*) variable is negatively correlated with FDI inflows and also statistically significant at the 1 and 5 per cent levels. The result of political stability does indicate that an unstable political environment is likely to deter FDI inflows and vice-versa.

CONCLUSION

This paper examined the effect of business environment indicators (time required to start a business, time required to enforce a contract and time to resolve insolvency) on FDI inflows in a large sample of developing countries. Using cross-country data for 2003-2006, the empirical analysis of FDI inflows and business relationship was conducted. The results obtained through fixed effects estimation provide strong evidence that the time required to start a business is negatively and statistically significantly correlated with FDI inflows. While the time required to enforce a contract is found to be negatively correlated with FDI inflows, the coefficient was however statistically insignificant. Economic growth and trade openness are found to be fundamental in terms of FDI inflows. In additions, political stability is negatively and statistically significantly correlated with FDI inflows.

The results obtained here lead to the conclusion that the business environment and in particular the time required to start a business can matter for FDI. It is an important determinant in terms of MNCs desire to invest in developing countries. FDI will continue to benefit countries through promoting economic growth through the transfer of financial resources, technology and managerial skills. In recognizing the benefits of FDI, it is important for developing countries to create business environments that are considered to be attractive to the MNCs. Foreign investors generally have better capabilities in a range of areas – financial, technological, marketing and international networks, amongst others. However, these advantages may not always overcome the constraints they may face in a new locality and poor business environment can frustrate their efforts of expanding their operations. The findings in this study provide support to the fact that potential host countries need to create incentives for the MNCs such as reducing the bureaucratic procedures involved in allowing firms to start a business. Policy makers in developing countries should formulate strategies to improve the business environment that can bring about significant long-term economic improvements.

This is also where governments have a part to play. It is to be noted that governments have important roles in providing public goods, supporting the provision of infrastructure and mitigating market failures (The World Bank, 2004, p. 22). Governments can also invoke a strong impact on the business environment. For example, governments can have a decisive influence over the many aspects of the investment climate that are of interest to firms. In particular, government policies in terms of quicker processing times for business applications, lesser bureaucratic procedures, easier regulatory framework, security of property rights, contract enforcement and elimination of corruption are strong incentives that can positively aid MNCs.

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