CONFÉRENCE DES NATIONS UNIES SUR
LE COMMERCE ET LE DÉVELOPPEMENT

UNITED NATIONS CONFERENCE

ON TRADE AND DEVELOPMENT

Meeting of Experts on "FDI, Technology and Competitiveness"

A conference convened in honour of Sanjaya Lall

UNCTAD, Palais des Nations, Geneva
8-9 March 2007

Foreign Direct Investment and the Locational Competitiveness of Countries

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(Draft of Paper. Not for quotation at this stage).

Conference: "Whither Competitiveness".
In Memory of Sanjaya Lall. **Geneva, March 2007.**

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1. INTRODUCTION

One of the several research interests I shared with Sanjaya Lall was on the determinants of the competitiveness of countries. In 2001, Sanjaya wrote a trenchant criticism of the quality and relevance of some of the indices used to identify and assess the competitiveness of developing countries by the *Global Competitiveness Report,* (GCR)[2]. While I endorse many of his concerns, I believe that, in one respect at least, the GCR does help us to better appreciate the role played by two distinctive, yet interrelated, components of competitiveness, which are often treated as one in the literature.

These are first, the resources, capabilities and markets (RCM) which make up the *physical*[3] environment in which firms and other organization create economic well-being; and second, the institutions (together with the values and belief systems underpinning them)(I) which provide the incentive structures to make up the human environment, and which set the rules of the game for, and determine the cognition and motivation of, firms and other wealth creating entities, that produce wealth.

All too frequently in the past, in assessing national competitiveness, the RCM and I determinants of economic activity have been treated separately. Partly this reflects the different disciplinary and methodological approaches to evaluating each. While mainstream economists, borrowing from the causal and functional analytical tools of the physical and/or biological sciences have favoured the 'if-then' approach to measuring competitiveness, other social scientists, notably sociologists, have focused more on the intentionality of human decision takers, and on the institutional and other elements determining the motivation and conduct of individuals.

This dichotomy is now starting to change. The first bridges were made by institutional scholars from a variety of disciplines in the 1930s and 1940s. Perhaps the most influential of these were John Commons and Herbert Simon. Later, the contributions of Oliver Williamson, Harold Demsetz and Douglass North helped bring the subject centre stage among economists and organizational theorists. Each, in their particular ways, has attempted to unite the RCM (or *physical*) with the I (or *human*) approach to understanding the strategy of firms and the policies of governments in the wealth creating process. However, from an international business (IB) perspective, notwithstanding the work of the internalisation school (Buckley and

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[2] An annual publication of the *World Economic Forum* in the 2005 edition which sets out 142 separate indices for 117 countries.

[3] We use these terms as does Douglass North in his various writings. (See e.g. North 2005)

Casson, 1976, 1985, Hennart, 1982), only very recently have institutions been incorporated into mainstream theory.[4]

Outside IB, an understanding of institutions has, traditionally, been the domain of sociologists, whose interest in this subject dates back to the writings of Emile Durkheim in the mid-19th century; while, latterly[5], organizational, international relations and legal scholars have contributed to the debate. And once one trespasses into the arena of values, cognitive science and belief systems, social psychologists, anthropologists, and theologians have their contribution to make, while a branch of economics called 'neuro economics' is beginning to link these behavioural elements together (Katz, 2005).

The purpose of this contribution is to examine the present state of thinking on the role of RCM and I as the main ingredients of the competitiveness of national economies; and, more particularly, of how the extent, content and quality of each are associated with the value of inward foreign direct investment (IFDI) by foreign companies and the outward fdi of their own MNEs (OFDI). In doing so, data constraints force us to take a cross sectional approach, although, ideally, we would like to have established how the respective contributions of RCM & I may have changed over time, and at different stages of economic development. As a proxy for this, we will attempt to classify our 117 national economies (about which the GCR provides data) into three main groups according to their GDP per head. We will also offer further breakdowns according to the economic structure and degree of open-ness of the economy. In particular, we shall abstract some primary product developing countries from the 117 countries, we believe that much of fdi into these economies has little to do with their overall competitiveness. Further details about our methodology of approach and data sources are set out in Section III of this paper.

The following section sets out the theoretical justification for RCM and I as competitive influencing variables comprising the *Global Competitiveness Index* (GCI) identified by the GCR.[6] Here we would simply observe that although some commentators have argued that the competitiveness (as opposed to the comparative) advantages of countries is a meaningless concept (Krugman, 1994), we believe that when evaluated from the viewpoint of investing or potentially investing firms it is by no means so.[7] Multinational enterprises (MNEs), in particular, regularly (and rightly) compare the relative location specific (competitive) advantages of particular countries and of the indigenous firms in those countries, when deciding where to site their various value-added activities. In this sense, firms *do* consider countries (and/or regions in countries) in terms of their ability to offer the RCMs and Is that they need to make their investments (or other forms of economic involvement) worthwhile.

[4] See e.g. the works of Oliver (1997), Heinsitz (2000, 2003), Mudambi and Navarra (2002), Peng (2003), Peng, Lee and Wang (2005), and Lu (2006). A special edition of JIBS edited by Witold Heinsitz due to be published in 2007, is devoted to this issue.

[5] See e.g. several essays in Ghoshal and Westney (1993), and Williamson (2000)

[6] To quote from the 2005/6 report The Global CI aims to measure the set of institutions, policies and factors that set current and medium term levels of economic prosperity, (WEF 2005, p.22).

[7] See, for example, my riposte to Krugman (Dunning 1995)

2. RESOURCES, CAPABILITIES AND MARKETS (RCM)

Both traditional economic theory and management related studies primarily focus their attention on the availability and quality of RCMs as the key determinant of economic welfare. The resource based theory of the firm (Wernerfelt, 1984; Barney, 1991), Michael Porter's diamond of competitive advantage (Porter, 1990) and most Western based textbooks on economics, dwell almost exclusively on the *physical* environment in which firms operate[8], and on their technical efficiency in converting scarce resources into more valued goods and services, as dictated, by the market or other means. Such received wisdom has generally played down the role of the *human* environment and the intentionality of its constituents in the wealth creating process, and of its institutions, which help fashion such intentionality. Or, perhaps, it would be more accurate to describe the incentive structures assumed by neoclassical economists as being static and single dimensional, – the maximisation of profits (in the case of firms) and that of utility (in the case of consumers, and that of GDP or GDP per head of the community (in the case of governments).

Although, as we have said, in the last two or more decades, as the global economic arena has become more uncertain, volatile and complex, and as more players from widely different cultures have entered the world economic stage, the acceptance of multiple and changing intentions, and that of non-ergodic uncertainty (North, 2005) has gained scholarly credence. Most theories of competitiveness and economic well being, however, still remain firmly entrenched in the RCM tradition. Nowhere is this better illustrated than on the focus of knowledge as the competitive enhancing asset of the late 20th and early 21st century.[9]

In Table 1 we summarise the main components of RCM, which, it is generally agreed, firms consider when making their locational choices. Clearly the importance of these 'inputs' to competitiveness will be context specific. In particular, they will vary according to the purpose of the fdi – be it inward or outward. Technology seeking MNEs are likely to place particular value on accessing scientific manpower and research and development (R&D facilities). Firms seeking to decentralise service call centres will be most strongly influenced by (real) labor costs, and the efficiency of cross-border communication systems. Natural resource based seekers, will most obviously be attracted by the availability and quality of the primary products required. Firms which need to be in close proximity to a range of suppliers, to common inputs or to their competitors will seek out locations which favour a clustering of the related activities.

Another possible way of classifying RCM of countries (as viewed by firms) is as between those owned by them and those which they may tap into, e.g. via alliances and subcontracting ventures. In their internal deployment, much will depend on the functions performed. In the case of foreign affiliates, these might vary from simple

[8] One exception is Christine Oliver's incorporation of institutional elements into the resource based theory (Oliver, 1997).

[9] Having replaced first land, then machines, and then financial capital as the main ingredient of economic growth and competitiveness.

assembling to highly complex innovatory activities. This also applies to gaining access to the RCM of other firms; e.g. buying into specialised high value (e.g. R&D) activities at the one end of the value chain (UNCTAD 2005) to service call centres at the other (UNCTAD 2004).

Finally, given the desire of companies to access or own particular RCMs, the preferred mode of entry (greenfield v merger and acquisition) might both be influenced by, and influence, their locational choice. This particularly applies in the case of asset augmenting investment, where the country specific competitiveness sought by the investing MNE may already be internalised by a domestic firm (or another foreign affiliate). In other cases, as we have already indicated, the search for complementary technologies, managerial and organisational capabilities and market opportunities, might best be accomplished by the conclusion of alliances, or by participating in networks.

In our empirical study, we shall seek to classify some of the more significant RCMs identified by the GCR, (and other sources)[10] into a number of groups, and to examine how far inbound and outbound fdi appear to be influenced by their values. In both cases, our purpose is to exploit or access the kind of RCMs from the optimum location which will best promote the (presumed) objectives of the investing firms – and especially their own competitiveness, profitability and growth.

[10] E.g. *Human Development Report* (UNDP, 2004) and *World Bank Report* (World Bank, 2004).

TABLE 1

RESOURCES, CAPABILITIES AND MARKETS

(The ingredients of wealth creation)

RESOURCES	• Natural resources e.g. land, untrained human capital • Created assets, e.g. technological capacity, machines, buildings.
CAPABILITIES	• Intangible assets, skills, educated/trained labour, accumulated experience and wisdom. • Organizational capacity and governance. • Vision/judgement in strategic decision taking. • Ability to frame and execute appropriate policies.
MARKETS	• Information/knowledge about/availability of both domestic and foreign markets; both product and factor markets. • Ability to tap into, exploit and coordinate markets; and to understand and cater for specific e.g. localised needs.

3. INSTITUTIONS (I)

Over the last decade there has been a burgeoning literature on the content, scope and relevance of institutions in the wealth creating activities of firms and countries. Organizational theorists, sociologists, political scientists – indeed virtually all the social science disciplines – have contributed their own perspectives and research agenda on the subject. Sometimes, the concept is very narrowly defined, for example in terms of constraints placed on the willingness and ability of certain constituents including governments to behave improperly. Sometimes it is treated from a purely micro economic or organizational perspective; and sometimes from a macro-socio-economic perspective. Sometimes it is viewed broadly as embracing each and every instrument which affects the motivation, cognition and behaviour of individuals and organizations engaged in the wealth creation process. An excellent review of these and other interpretations of institutional content is contained in Williamson (2000).

In this chapter, as we are concerned with the ingredients of a country's competitiveness as viewed by investing firms, we shall embrace the broad interpretation of institutions, which, we believe, is best articulated by Douglass North in his various writings (North 1990, 1995, 2005). It is also that which most international business scholars have tended to adopt (albeit with modifications).[11]

Like RCM, I comprises a galaxy of ingredients. Some of these are reproduced in Table 2. In the left hand column of the table, are set out some different governance structures. These range from coercive and top down laws and regulations, to spontaneous and bottom up behavioural norms or customs (Dunning 2003). In the right hand column, we identify some of the economic and social functions which, depending on their institutional content and form, might affect the cognition, motivation and behaviour of firms in their decisions on *whether* and *how* to create and efficiently utilise the RCM owned, leased or accessed by them.

Once again, the likely drawing power of such institutions to inward foreign investors, and/or their influence in determining the willingness and ability of domestic firms to engage in outward fdi is likely to be highly contextual. For example, the content and quality of domestic innovatory systems and the protection of intellectual property rights is likely to be particularly relevant for (knowledge augmenting) fdi: while fiscal incentive instruments might tip the balance of a country seeking to attract efficiency seeking fdi. Within a developing country's region e.g. Latin America, Asia or Eastern Europe, the quality and content of indigenous social capital and the extent of crime and corruption and social disfunction might be one of the decisive influences on locational choice. Institutions affecting M&A strategies and/or the performance constraints placed on foreign affiliates might also be expected to have a major influence on the ownership strategies of foreign MNEs.

[11] See particularly Mudambi and Navarra (2002), Maitland and Nicholas (2003), Heinisz (2000), Oliver, (1997), Dunning (2005, 2006) and Dunning and Lundan (2006).

As with RCM influences on the L attractiveness of countries, we shall group the I variables into a number of broad categories. These are described in Section 5 We repeat, that our main objective is to identify the relative importance of these largely immobile characteristics of countries in influencing the location decisions of firms.

TABLE 2
INSTITUTIONS

(The motivation for and regulation of wealth creating activities)

A.FORMS	**B. AREAS OF INSTITUTIONAL INFLUENCE (IN COMMERCIAL DOMAIN)**
Formal institutions:- • Constitutions, treaties, laws, regulations: provision for learning, upgrading cognition, knowledge, etc. **Informal institutions,** • Tradition, cultural mores, trust, goodwill, reputation. **Enforcement mechanisms** • Less formal self regulation, fear, retaliation, blackballing. • More formal. Incentives/penalties, (fines, enforced transparency, cancellation of contracts, imprisonment, etc.	• Economic adjustment and stabilization.. • Intellectual property protection • Strengthening economic motivation/entrepreneurship • Rule setting and societal guidance (e.g. reducing 'bads' e.g. crime, drugs, etc.). • Promotion of entrepreneurship and competitive market structure. • Adequate and effective financial institutions • Education and training upgrading • Security of people and physical assets • Innovatory development • Incentives/regulation of fdi. • Social equity and access to opportunity.

We would make one final point at this stage of our analysis. That concerns the distinction between the institutions and policies of national governments, and the institutions and strategies of firms. We define policies as decisions taken by governments to pursue particular courses of action to achieve certain economic, social and political objectives. We define institutions as instruments (or groups of instruments) which might both influence these actions and be influenced by them. Thus, it may be a policy decision of a government to switch its economic system, for which it is responsible, from one of central planning to that which accepts the merits of capitalism. But the (macro) institutional system which implements that new policy is the market, c.f. with the fiat of government. Similarly at the level of the firm, while strategy represents a plan or blue print for pursuing certain objectives a company sets itself, (which may or may not be influenced by its perceptions of its competitors' strategies), its institutions (and those external to the firm which affect its behaviour) represent the means by which those responsible for executing the strategy are motivated or regulated to do so in the most acceptable way.

4. THE WIR AND WEF REPORTS

We have used two main sources of data in our empirical research. The first is UNCTAD's annual *World Investment Report* which provides information on both outward and inward fdi stocks and/or accumulated flows[12] for several years dating back to 1980. These data are mainly those provided by national authorities.[13] However, except in a few cases, IFDI flows or stocks are not classified by country of origin; neither is OFDI delineated by country of destination. All values are expressed in US dollars and converted (usually at the end of the calendar year) at current exchange rates.

Our basic propositions of this chapter are fourfold. Proposition 1 is that *the more pronounced the locational attractions or competitive advantages of a country the more will be its share of the world fdi stock.* Proposition 2 is that *the content and quality of the institutions of a country are an important influence on the extent and form of its IFDI.* Proposition 3 is that *the competitive advantages of firms in countries (but possibly different to those of the first kind) will be positively correlated with the extent and form of OFDI.* Proposition 4 is that *I advantages are an important, and possibly an increasingly important, determinant of the extent and form of OFDI.*

As far as the explanatory variables are concerned, the data on RCM and I, and most their ingredients, were obtained from the Global Competitiveness Report (GCR) of the World Economic Forum (WEF) (2005). The 2005/6 version of this publication provides data on 142 separate performance indicators, 90 of which are grouped into nine pillars of competitiveness.[14] Data on these are provided for some 117 countries. Some of these indices were derived directly from national statistics (e.g. expenditure

[12] Where fdi stocks are not available.

[13] Though the definition of fdi is broadly the same (viz. an investment of 10% by one company in that of another, but in a different country).

[14] These pillars are respectively institutions, infrastructure, macro economy, health and primary education, higher education and training, market efficiency, labour markets and technological readiness, business sophistication and innovation. See Chapter 1.1 of WEF (2005) p.22-24.

on R&D, interest rates, labour costs). Others came from the opinions of a group of some 10,993 executives from these countries[15], who were asked to rank how far they believed in the validity of particular statements, and/or of how important they perceived a particular locational variable might be; and to do on a Likert scale of 1-7. All the data were collected or provided for the years between 2003 and 2005.

In our exercise, and taking our definitions of RCM and I, we reclassified some of the individual performance indicators to form two main groups – a RCM group compromising 72 indices, and an I group made up of 70 indices. We further divided these two groups into three further subgroups. Market characteristics (Mc), Technological capacity (T), and Infrastructure and Support services (Is) made up of RCM group; and Institutions (Ip), Market efficiency (Me), and Innovation Systems (In) comprised the I group.

5. THE MODELS

(a) *Inward fdi*. (IFDI)

In our empirical study, we distinguish between two alternative propositions on the likely impact of locational competitiveness on inbound fdi. The first is that such competitiveness should attract the exploitation or augmentation of the O specific advantages of the investing firms (i.e. by adding further value). The second is that since such competitiveness, at least partly, reflects the O advantages of established firms – both domestically and foreign owned, - it could be that the unique O advantages of foreign MNEs do not match up to those of the domestic sector, and thus there would be less fdi. Such, for example, was very much the case in the 1950s and 1960s, when *inter alia* there was little fdi in the US because the locational competitiveness of the latter reflected the superior competitive advantages of its indigenous firms, and its institutions, *vis a vis* those of foreign competitors.[16]

When considering, then, the relative locational attractions of RCM and I (and/or the individual components of each), which is the more likely to act as a deterrent in the second scenario described above? It is our proposition that, within a particular location, I is less likely to be O specific than is RCM; in other words, that the components of I (e.g. market efficiency, incentive structures and innovation systems) are likely to have a broadly similar affect on the competitive prowess of *both* foreign owned and domestic firms.

Finally, we would reiterate an earlier point, viz. that other factors – notably the quality, availability and price of indigenous primary products – e.g. oil, hard minerals and agricultural goods – are less likely to be shown up in competitive indices than their counterparts in the secondary or tertiary sectors.[17] We then have two alternative

[15] Which countries cover between them 78.2% of the world's GDP. Details of the respondents are given in Chapter 4.1 of WEF (2005).

[16] In the language of the eclectic paradigm, if the competitiveness of RSM and I reflects the L advantages of countries rather than the O advantages of firms located in that country they will attract inward fdi. If, however, such advantages are specific indigenous firms, then they may deter (competitive) inward fdi.

[17] In fact there are no indices of the significance of (exportable) primary produces in the GCI.

hypotheses to test. The first is a generalised hypothesis which examines the significance of each host country, *relative* to all other countries of the two groups of variables. This suggests a positive relationship between the dependent and explanatory variables (see Proposition 1, page 11).[18]

IFDI (f) (RCM, I) ……..……1.1

The second attempts to assess the significance of the components of RCM and I viz. for each country *relative* to that of all other countries (see Proposition 2, page11).

IFDI (f) (Mc,T,Is) (Ip,Me,In) ……..1.2

where RCM is made up of Mc = market characteristics, T= technological capacity and I_S = infrastructure and support services; and I comprises Ip = extra market public and private institutions, Me = market efficiency (i.e. absence of market failure) and In = quality of (macro) innovation systems. A more detailed description of the variables is set out in Appendix I to this chapter. As already indicated, we acknowledge that these variables do not embrace *all* the possible determinants of inbound fdi. Several, e.g. such as the strategies of competing firms and the fdi policies of home governments, are excluded. We also accept that IFDI might be deterred by the competitiveness of indigenous firms, while OFDI of an asset augmenting kind might reflect a weakness rather of a strength of the investing firms. However, those included do originate from the same source[19], and their method of calculation is reasonably well standardised.

However, in testing the Hypothesis 1.1 we have added three 'other' country specific variables, not covered by the global competitiveness index (GCI), as control variables. These are (1) population (P) – a size of country variable, (2) the proportion of exports accounted for by primary products (E_p) as a natural resource variable, and (3) the ratio between value of privatisation schemes and inbound fdi (P_r) as a proxy for the drawing power of such schemes particularly in transition economies. Each of these variables we hypothesise to be positively related to IFDI (proposition 1&2). For P we take data for 2004 from *the Global Competitiveness Report 2005/6*. For $E_{p,}$ our data source is UNDP (2004); and for P_r we assign a dummy variable of 0-5. The full specification of equation 1.1, which again hypothesises that each of the independent variables positively affects IFDI, then becomes

IFDI(f)(RCM, I, P, Ep, Pr) ……...1.3

(b) *Outward fdi*. (OFDI)

The received international business literature suggests that firms will engage in outward fdi when (a) their unique competitive, or O specific, advantages make it possible for them to effectively compete with indigenous firms in the markets they are intending to serve; (b) that it is better to locate at least some of their value added activities in these markets (or elsewhere outside the home country) rather than export to the country in question and (c) that the ownership of the foreign productive

[18] Though we accept that in some circumstances and in the case of RCM the relationship could be a negative one.

[19] See World Economic Forum (2005).

facilities is preferred to selling (e.g. by licensing or other contractual means) the rights to exploit the O advantages to a foreign based firm.

More recently (since the early 1990s) an alternative explanation of outward fdi has been increasingly emphasised. In contrast to the objective of more effectively *exploiting* their existing O advantages (via market, natural resource and efficiency seeking fdi), some firms may wish to engage in fdi in order to *augment* their O advantages; and to do so by acquiring or tapping into foreign based RCM and Is. As with inbound fdi, the competitiveness of home based MNEs and their countries of origin might be seen as either a strength or a weakness for going abroad.[20] Again, the question arises. Is such fdi likely to be of a RCM or an I kind? And are, too, the O advantages or disadvantages of the investing firms endemic to their home country, or, instead, of the other countries in which they operate, or are they specific to a particular firm or group of firms?[21]

This having been said, the content of the variables explaining outward fdi are postulated to be similar to those explaining inward fdi viz. for each home country, *relative* to all other countries competing for the same investment. So the relevant equations used to test Propositions 3&4 set out on page 12 are

OFDI (f) (RCM, I) ……....2.1
(for the generalised proposition)
and
OFDI (f)(Mc,T,Is) (Ip,Me,In) ……..…….2.2
for the components for RCM and I.

As in the case of 1.1, we also include the three control variables. Thus the complete equation for 2.1 becomes

OFDI(f)(RCM I,P, Ep, Pr) ……2.3

6. THE DATA

We define the dependent variables in each set of equations (IFDI and OFDI) as the ratio between a country's share of global fdi stock and its share in global gross domestic product (GDP) (as measured in dollars at the current exchange rate in 2006). We normalise for size of country as is also done for each of the independent variables. We have chosen to use fdi stock (or accumulated flow) figures, because, over the last decade, the annual flow data have been greatly influenced by the volatility of M&As and privitization deals. Because of this, we believe the stock data better reflects the long term intentions of foreign investors, and their response to L specific attractions. For the independent and competitive related variables, we use the rankings of the 117 countries contained in the GCR (2005/6). For the control variables we extract data from GCR (2005/6), UNIDO (2004) and WIR (2002).

In some cases, our rankings are based on hard data, e.g. most market based and several technology related variables. In others they reflect the ranking (on a scale

[20] And, indeed in many cases, a combination of the two.
[21] In Alan Rugman's terminology is it likely to be countries or firm specific (Rugman, 2006)

1-7) assigned by 10,993 business executives from the 117 countries.[22] For example, in respect of their opinions on local suppliers, the executives were asked to rank, on a scale 1-7 in respect of each of the countries, their assessment of the quality of local suppliers; (1 = poor as they are inefficient and have little technological capacity … through to 7 = very good, as they are internationally competitive and assist in new product and process development).[23] The survey was conducted by the World Economic Forum (WEF) between January and May 2005.

We divide our statistical analysis into three parts. The first contained in Table 3, sets out some of descriptive statistics which relates the relationship between the average ranking of the dependent variables (viz. IFID and OFDI), for each of the 117 countries, and to those of the independent variables (RCM and I and their components). These data, we classify into 10 groups, each of which represents a different range of GDPs per capita. In the case of the explanatory variables, each is calculated as the average of the rankings assigned to their indices of competitiveness as identified in Appendix 2. In some cases, the assignation of a particular indice to a composite indice is straightforward. In others, it is our best judgement. In particular, we have tried to distinguish between the institutions underpinning the fdi strategy of firms and the policies of governments, and the strategies and policies themselves – and their relative success or failure.[24]

The second exercise is a straightforward econometric one, and consists of "testing" the propositions described on p.11, 13and14. We have earlier set out some thoughts about both of the possible directions of the relationship between FDI and the explanatory variables; and also of the relative significance of each of the two or six indices identified. Table 4 exhibits the regression equations, correlation coefficients and degrees of significance in respect of the four propositions.

Lastly, Table 5 displays these equations for three groups of countries – viz. (i) lower income countries (Groups 1 – 4 in Table 3), (ii) the medium income countries (Groups 5-7), and (iii) the upper income countries (Groups 8 – 10). In Appendix C we also set out these equations for four groups of countries according to their degree of economic openness to the rest of the world.

[22] Total country coverage in 2005 was equivalent to 98.2% of the world's gross domestic product. The response rate of business executives averaged 94.9%.

[23] Details of the way in which the Executive Opinion Survey was conducted is set out in World Economic Forum (2005), Chapter 4.1, p.213/ .

[24] For example, we regard some of the market related indices classified by the GCR as 'market based': to do with the size and character of markets, which we classify under RCM, while others reflect the market as an institution, which we classify under I.

TABLE 3

RELATIONSHIP BETWEEN RANKINGS OF FDI AND COMPETITIVE ASSETS IN COUNTRIES, CLASSIFIED BY GDP PER HEAD (US$)

Groups		Average GDP/Head	Range of Ranking	IFDI	OFDI	RCM				I				Global Competitiveness
						All	Is	Mc	T	All	Ip	Me	In	
1	63609 to 30062	36706	1-11	1	1	1	1	1	1	1	1	1	2	1
2	29906 to 26799	28728	12-22	3	2	2	2	2	2	2	2	2	1	2
3	25614 to 19038	21728	23-33	6	3	3	3	3	3	3	3	3	3	3
4	18817 to 11845	14463	34-45	2	4	4	4	4	4	4	4	4	4	4
5	11568 to 7901	9767	46-57	8	5	5	5	5	5	5	5	5	5	5
6	7732 to 5642	6968	58-69	9	8	6	6	6	6	6	6	8	6	6
7	5571 to 4227	4765	70-81	4	7	7	7	7	7	8	10	7	7	8
8	4072 to 2677	3437	82-93	5	9	8	8	8	8	9	9	9	8	7
9	2570 to 1728	2124	94-105	7	6	9	9	9	9	7	8	6	9	9
10	1555 to 0	1025	106-117	10	10	10	10	10	10	10	7	10	10	10

Source: World Economic Forum 2005, World Investment Report 2006, and World Development Indicators Database (World Bank, 2006)

7. THE RESULTS.

(i) *Descriptive statistics*.

In Table 3, it can be seen that both RCM and I (as well as most of their components) well correspond to our ranking of competitiveness, viz. GDP per head, and to outward fdi. Indeed, OFDI and market efficiency (Me) – one of the I variables – are perfectly matched. However, the correspondence between RCM and I to IFDI is more mixed. For IFDI, the most skewed groups are group 5, 6, 7, and 8. However, among these groups, we might identify several country outliers, which may explain the irregular rankings. In Group 5, for example, as column 4 shows, whereas the ranking of GDP per head in this group is between 46 and 57, the ranking of IFDI for Russian Federation is 91, that for Uruguay is 92, and that for Botswana is 104. In the same vein, in Group 6, while the ranking of GDP per head ranges from 58 to 69, the ranking of IFDI for Turkey is 103, and that for Algeria is 108. Besides, historical, cultural and political reasons that may explain these exceptions, market size seems a critical factor influencing the inward fdi.

While Groups 5 and 6 have competitive indices which tend to lag inward fdi, exceptions in Groups 7 and 8 suggest an opposite phenomenon. In Group 7, column 4 shows whereas the ranking of GDP per head in this group is between 70 and 81, the ranking of IFDI for Guyana is 5, and that for Jamaica, Morocco, and Jordan is 13, 31, and 36, respectively. Each of these displays a relatively high inward fdi compared to their GDP per head. Similarly, Azerbaijan, Nicaragua, Bolivia, Ecuador, Georgia, and Honduras in Group 8 reveal above average rankings in respect of their IFDI Stocks compared with their GDPs per head. It can be seen that most of the exceptions of Groups 7 and 8 are from Latin America and Africa. Here, we would speculate that fdi directed to resource seeking (either natural resource or labour) activities explains most of this mismatch.

In general, the rankings of our RCM and I variables, as well as their components, correspond relatively well to those of IFDI, OFDI, and competitiveness. Therefore, we (tentatively) conclude our first proposition (set out on page 12) viz. – *the more pronounced the competitive advantages of a country, the more its share of the world inward & outward FDI stock* – is supported.

(ii) *The Econometric Tests*.

Table 3 revealed some mismatches among rankings. To alleviate this problem in our econometric testing, we converted several of our variables into logarithmic terms. In doing so the variances identified are not only mitigated, but their characteristics remain unchanged.

Table 4 (a) shows the results in respect of each of the four propositions set out earlier. For the RCM (see Table 4 (b)), the results show a high level of a positive significance in determining OFDI (Equations 2.1 and 2.3). Although RCM itself does not appear to be highly correlated with IFDI, in the breakdown analysis, two of the RCM variables – viz. infrastructure and support service (Is) and technological capability (T) – are significantly correlated (Equation 1.2). However, T is shown to be

negatively correlated with IFDI, which suggests that the competitive strengths of local firms may act as a deterrent to it. This would appear to support the second of our alternative versions of Proposition 1 set out on page 13, viz. locational competitiveness, at least partly, reflects the O advantages of established firms - it could be that the unique O advantages of foreign MNEs do not match up to those of the domestic sector, and thus there would be less fdi. In the same vein, when we break down the RCM variable in OFDI study (Equation 2.2), the results show infrastructure and support service (Is) is positively and significantly related to outward MNE activities. Indeed, our *third proposition, viz. the competitive advantages of firms in countries will be positively correlated with the extent and form of OFDI,* is upheld.

For the propositions with respect of the institutional based characteristics (I), variable I in Table 4 (c) shows a positive relationship with both inward fdi and outward fdi (Equations 1.1 and 2.1). However, both relations are weakened when control variables are added (Equations 1.3 and 2.3). In the breakdown analysis of I variable (Equations 1.2 and 2.2), whereas market efficiency (Me) shows a strong positive correlation with both inward fdi and outward fdi, the extra-market public and private institutions (Ip) exhibit different impacts on them. In Equation 1.2, Ip has a negative, but insignificant, relation with IFDI, while in Equation 2.2, Ip is positively correlated with OFDI at 10% significant level. In addition, the quality of the indigenous innovation system (In) demonstrates a negative relationship with both IFDI and OFDI, and only achieves significance in Equation 2.2 for OFDI.

As elaborated above, Propositions 2 and 4 (set out on page 12) are partially supported, viz. *the content and quality of the institutions of a country are an important influence on the extent and form of its IFDI*; and *I advantages are an important, and possibly an increasingly important, determinant of the extent and form of OFDI*. In other words, the institutional variables (I and its components) play an important role in determining both IFDI and OFDI. The remaining part of Propositions 2 and 4 will be tested in Table 5.

Table 4

(i) (a) The general and specific equations. (for both IFDI and OFDI)

Models / Variables	IFDI			OFDI		
	1.1	1.2	1.3	2.1	2.2	2.3
RCM	-0.0012		0.0001	0.0115***		0.0141***
I	0.3052*		0.2347	0.3439***		0.2281*
Is		0.0102*			0.0135***	
Mc		0.0105			0.0028	
T		-0.0151*			0.0072	
Ip		-0.2665			0.2377*	
Me		0.7297***			0.3382***	
In		-0.0088			-0.0164***	
P			-0.0102***			-0.0025
Ep			-0.0013			0.0014
Pr			-0.0436			0.1258**
p-value	0.0138	<.0001	0.0001	<.0001	<.0001	<.0001
Adj R^2	0.0561	0.2749	0.1673	0.5272	0.6063	0.5537

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

(b) The general and specific equations. (For Proposition 3)

Models / Variables	IFDI			OFDI		
	1.1	1.2	1.3	2.1	2.2	2.3
RCM	-0.0012		0.0001	0.0115***		0.0141***
Is		0.0102*			0.0135***	
Mc		0.0105			0.0028	
T		-0.0151*			0.0072	
P			-0.0102***			-0.0025
Ep			-0.0013			0.0014
Pr			-0.0436			0.1258**

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

(c) The general and specific equations. (For Propositions 2 and 4)

Proposition 2

Models / Variables	IFDI		
	1.1	1.2	1.3
I	0.3052*		0.2347
Ip		-0.2665	
Me		0.7297***	
In		-0.0088	
P			-0.0102***
Ep			-0.0013
Pr			-0.0436

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

Proposition 4

Models / Variables	OFDI		
	2.1	2.2	2.3
I	0.3439***		0.2281*
Ip		0.2377*	
Me		0.3382***	
In		-0.0164***	
P			-0.0025
Ep			0.0014
Pr			0.1258**

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

Contrary to the standard hypothesis that firms invest abroad to tap into superior knowledge based assets, we obtained negative relations between T and IFDI, and between In and IFDI&OFDI. In explaining the negative coefficients of technological and innovative factors, we might speculate that the technological capability and the context & quality of the national innovation system of host economies may interact with other institutional conditions, such as government policies and firm strategies (as we explained on page 11). Therefore, the superior knowledge based assets of host country may have adverse effects on inward fdis due to such interactions, so do those of home country on outward fdis.

In general, then Table 4 not only confirms Proposition 3, and partially confirms Propositions 2 and 4, also suggests that IFDI is mainly market oriented (the highly significant Me), while OFDI is influenced by the quality of home country institutions (the highly significant I). In other words, the O advantages of the investing firms strongly reflect the institutional environment of their home country.

Finally, for the control variables, privatisation schemes (Pr), combined with RCM variable, appears to be significantly associated with OFDI. A straightforward interpretation of this relationship would be that privatisation encourages the development of entrepreneurship that may be evidence of increasingly favourable institutional conditions. However, population (P) is negatively correlated with IFDI in Table 4. We speculate that large portions of world fdis are still remained within industrialized countries through mutual investments, whereas the population of these countries only accounts for a small portion of world population.

To identify RCM and I variables that correlate most closely with fdi stocks (Propositions 3 and 4), we executed a stepwise test for all variables, and examined the isolated effects of each variable (see Appendix A for more details). The entering order of the variables is determined by the results from SAS stepwise procedures. These reveal an R^2 of 0.0718 when including only the I variable to explain IFDI, while adding the RCM variable improves it by only 0.0006. Therefore, we conclude that I advantages of the host countries would appear to be the major determinants of IFDI in Equations 1.1 & 1.2 in Table 4. However, pulling into the control variables identified in 1.3, population (P) becomes the key explanatory variable for IFDI (it adds 0.1260 to equation R^2). In the same vein, of the components of RCM and I, market efficiency (Me) is shown to be most positively associated with IFDI, followed by Ip, T, Is, In, and Mc.

In the OFDI study, RCM itself obtains a R^2 of 0.4998 in explaining OFDI, while adding I only improves its value by 0.0356. This would then suggest that RCM is the more important of the two generic variables in determining OFDI. And among the control variables, population (P) and privatization schemes (Pr) also appear to be more associated with OFDI. Moreover, the components of RCM and I present a following order in terms of significance to OFDI: viz. Ip, Is, Me, T, In, then Mc. However, basically, the above analysis agrees with the results in Table 4.

(iii) Economic Development & FDI.

We now turn to consider the possibility that the results so far described might be related to the stage of development of a country. To test the relationship between the

stage of economic development of a country and the interaction between its competitiveness & RCM/I and fdi, we divided the 117 countries identified by the GCR into three groups, based on their GDP per head (for details, see Appendix B). The results are set out in Table 5. These show, rather unexpectedly in our view, that neither RCM nor I appear to be significantly related to IFDI in the first two stages. Neither are the adjusted R^2 of most equations robust. In the third group that includes all the richest countries around the world, RCM is significantly correlated with the OFDI, and confirms *Proposition 3* on page 12 (see Table 5 (b)). But contrary to expectations, the variable I in this group is still not significant in determining IFDI and OFDI (see Table 5 (c)); indeed it appears to be negatively associated with both IFDI (if pulling into control variables) and OFDI. The deterrent effects of strong firms in advanced economies may explain the negative correlation between I and IFDI, while the reduced incentive to invest abroad when the institutional environment at home is superior may shed light on the negative relation between I and OFDI. Moreover, large portions of IFDI and OFDI of advanced economies are intra-Triad M&As; and these are primarily explained by firm- or industry-specific variables not captured by our design here. In sum, the RCM in Equations 3.1, 3.3, 4.1, and 4.3 weakly supports our *Proposition 3* on page 12, but the I, in general, fails to support the Proposition 4.

The incorporation of the component variables provides us more insights into relationships between fdi and GDP per head. For IFDI, equation 3.2 obtains an acceptable adjusted R^2 in each of the three stages. In the early stage of development, extra market public and private institutions (Ip) and technological capacity (T) seem to be positively and significantly related to IFDI, but T has a negative coefficient. In the second stage of development, Ip shows a significant but negative relation with IFDI, while market efficiency (Me) becomes its most important positive influencing factor. In the third stage, besides the similar effects of Ip and Me to those in Group 2, infrastructure and support services (Is) become one of the major elements effecting inward fdi. This is clearly one of the most important locational attractions of developed countries.

For the component study of OFDI, equation 4.2 only achieves a reasonable R^2 for the wealthiest group of countries. Here, infrastructure and support services (Is) and market efficiency (Me) of such countries are shown to be positively significant, whereas the coefficient of the quality of the home country's innovation system (In) is negative. In addition, the coefficients of In in each of the OFDI equations, as well as the last two groups in IFDI equations, are negative, which possibly suggests a phenomena of techno-nationalism may go alongside the economic development.

Therefore, from the above analysis in Table 5, we can conclude that our *second and fourth propositions* are also confirmed all-out weakly. Variable RCM and I all display an increasing importance for IFDI and OFDI, although it's less obvious for IFDI. Some of the components of RCM (especially Is) and I (especially Me) do, however, show an increasingly strong correlation with IFDI and OFDI.

For the control variables, population (P) once again manifests a strong influence on IFDI in all three groups. As we expected, the proportion of exports accounted fdi by a country (Ep) is positively related to IFDI in the first two groups and achieves 10% significant level in the second group, whereas it turns to be negatively related to

IFDI in the third group comprising the advanced economies. In other words, at least some of the inward fdis to primary or developing economies are resource-seeking kind of investments, corresponding to our conjecture on page 5 that natural resource based seekers will most obviously be attracted by the availability and quality of the primary products required.

Table 5

(i) (a) As related to GDP per head. (for both IFDI and OFDI)

Models / Variables		IFDI			OFDI		
		3.1	3.2	3.3	4.1	4.2	4.3
Group 1	RCM	-0.0084		-0.0082	0.0016		0.0016
	I	0.4655		0.7249	0.0976		0.0834
	Is		0.0049			-0.0019	
	Mc		0.0117			0.0048	
	T		-0.0322***			0.0012	
	Ip		1.0216*			0.2238	
	Me		-0.0003			0.0147	
	In		0.0004			-0.0047	
	P			-0.0094***			0.0003
	Ep			0.0001			0.0016
	Pr			-0.1800*			-0.0556
	p-value	0.5696	0.0765	0.0289	0.3907	0.5474	0.4290
	Adj R^2	-0.0159	0.1028	0.1367	-0.0016	-0.0181	-0.0002
Group 2	RCM	0.0008		0.0092	0.0016		0.0106
	I	0.1938		0.1757	0.2850		0.1926
	Is		0.0152			0.0019	
	Mc		-0.0129			0.0013	
	T		0.0186			0.0077	
	Ip		-1.241**			0.1750	
	Me		1.4343***			0.1869	
	In		-0.0191			-0.0109	
	P			-0.0094**			0.0008
	Ep			0.0109*			0.0095**
	Pr			0.0108			0.1473**
	p-value	0.7379	0.0060	0.0617	0.2404	0.6149	0.0050
	Adj R^2	-0.0468	0.3686	0.1877	0.0311	-0.0507	0.3534
Group 3	RCM	0.0284		0.0275	0.0441**		0.0546**
	I	0.1107		-0.0881	-0.0520		-0.2324
	Is		0.0800**			0.0862***	
	Mc		0.0225			0.0162	
	T		-0.0250			-0.0107	
	Ip		-0.5619*			-0.1142	
	Me		0.9516***			0.5280**	
	In		-0.0329			-0.0426*	
	P			-0.0235***			-0.0132**
	Ep			-0.0206**			-0.0061
	Pr			-0.0735			0.1037
	p-value	0.2180	0.0015	0.0169	0.0164	0.0005	0.0183
	Adj R^2	0.0422	0.4826	0.3089	0.2151	0.5394	0.3032

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

(b) As related to GDP per head. (for Proposition 3)

Variables \ Models		IFDI			OFDI		
		3.1	3.2	3.3	4.1	4.2	4.3
Group 1	RCM	-0.0084		-0.0082	0.0016		0.0016
	Is		0.0049			-0.0019	
	Mc		0.0117			0.0048	
	T		-0.0322***			0.0012	
	P			-0.0094***			0.0003
	Ep			0.0001			0.0016
	Pr			-0.1800*			-0.0556
Group 2	RCM	0.0008		0.0092	0.0016		0.0106
	Is		0.0152			0.0019	
	Mc		-0.0129			0.0013	
	T		0.0186			0.0077	
	P			-0.0094**			0.0008
	Ep			0.0109*			0.0095**
	Pr			0.0108			0.1473**
Group 3	RCM	0.0284		0.0275	0.0441**		0.0546**
	Is		0.0800**			0.0862***	
	Mc		0.0225			0.0162	
	T		-0.0250			-0.0107	
	P			-0.0235***			-0.0132**
	Ep			-0.0206**			-0.0061
	Pr			-0.0735			0.1037

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

(c) As related to GDP per head. (for Propositions 2 and 4)

Proposition 2

Variables \ Models		IFDI		
		3.1	3.2	3.3
Group 1	I	0.4655		0.7249
	Ip		1.0216*	
	Me		-0.0003	
	In		0.0004	
	P			-0.0094***
	Ep			0.0001
	Pr			-0.1800*
Group 2	I	0.1938		0.1757
	Ip		-1.241**	
	Me		1.4343***	
	In		-0.0191	
	P			-0.0094**
	Ep			0.0109*
	Pr			0.0108
Group 3	I	0.1107		-0.0881
	Ip		-0.5619*	
	Me		0.9516***	
	In		-0.0329	
	P			-0.0235***
	Ep			-0.0206**
	Pr			-0.0735

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

Proposition 4

Variables \ Models		OFDI		
		4.1	4.2	4.3
Group 1	I	0.0976		0.0834
	Ip		0.2238	
	Me		0.0147	
	In		-0.0047	
	P			0.0003
	Ep			0.0016
	Pr			-0.0556
Group 2	I	0.2850		0.1926
	Ip		0.1750	
	Me		0.1869	
	In		-0.0109	
	P			0.0008
	Ep			0.0095**
	Pr			0.1473**
Group 3	I	-0.0520		-0.2324
	Ip		-0.1142	
	Me		0.5280**	
	In		-0.0426*	
	P			-0.0132**
	Ep			-0.0061
	Pr			0.1037

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

Finally, we looked at the key variables identified in the stepwise study (on page 24), which provided further information of determinants of IFDI & OFDI under different development stages. The change of the determinants of IFDI is demonstrated by the coefficients and the significant level of variables, and follows an order from Ip in the preliminary stage to Me in developed stages (the second and third stages). As Ip and Me are both institutional variables, this trend corresponds with the results in Table 4 and confirms our Proposition 2. Furthermore, for OFDI, RCM component (Is) and I component (Me) become significant in the third group, which not only demonstrates a balancing of the determinants among RCM and I factors, but also confirms the increasingly important role played by institutional advantages in determining OFDI along with the economic development of countries (as suggested in Proposition 4).

8. CONCLUSIONS.

This chapter has attempted to show the relationship between the propensity of firms to engage in inward and outward fdi and the locational competitive advantages of some 117 countries. In doing so, it has made use of data for 2005 (or the nearest date) primarily obtained from UNCTAD's WIR and the WEF's GCR. We fully recognise the limitations of our data; neither would we presume to have established any causal relationships between fdi and host or home country competitiveness. To do this, we would need to relate fdi in time t to competitiveness in an earlier time period t – 1,…n, or to undertake a time series exercise. Unfortunately the GCR data, although quite comprehensive for 2003/5, do not allow us to do this.

The best we can do then is to indicate whether the relationships established are at least consistent with the analytical framework set out in Section 3 of the paper. In general, we think this framework is a robust and useful one. The level of competitiveness does, in general, encourage both inward and outward direct investment, though there are some exceptions to this general statement – especially with respect to asset augmenting fdi. This it not to deny or minimise the huge data problems both to do with the definition and interpretation of both fdi and the explanatory variables. In particular, it is difficult to isolate the impact of the locational attractions by countries equally available to both indigenous firms and foreign investors, and those which are largely 'internalised' – i.e. taken advantage of by domestic firms; to separate the competitiveness of related variables from the other determinants of IFDI and OFDI. A third challenge is to distinguish between the ways in which asset augmenting and asset exploiting fdi respond to different kinds of country specific competitiveness.

But, at the very least, we hope this contribution takes the debate on competitiveness and fdi – a topic so dear to Sanjaya's heart – a stage further.

Reading and Rutgers University
December 2006

Appendix A: Stepwise Test

Model / Variables	IFDI											
	1	2	3	4	5	6	7	8	9	10	11	Corr
I	0.2680***	0.3052*	0.2034	0.2326	0.2347							0.0718
RCM		-0.0012	0.0012	0.0007	0.0001							0.0006
P			-0.0099***	-0.0101***	-0.0102***							0.1260
Pr				-0.0455	-0.0436							0.0030
Ep					-0.0013							-0.0007
Me						0.4375***	0.7577***	0.7566***	0.6972***	0.7405***	0.7297***	0.1914
Ip							-0.4017***	-0.4029***	-0.2311	-0.2969*	-0.2665	0.0588
Mc								0.0001	0.0127**	0.0101	0.0105	0.0000
T									-0.0163**	-0.0212***	-0.0151*	0.0402
Is										0.0087	0.0102*	0.0141
In											-0.0088	0.0079
p-value	0.0035	0.0138	<.0001	<.0001	0.0001	0.0367	<.0001	<.0001	<.0001	<.0001	<.0001	
R^2	0.0718	0.0724	0.1984	0.2014	0.2007	0.1914	0.2502	0.2502	0.2904	0.3045	0.3124	
Model / Variables	OFDI											
	1	2	3	4	5	6	7	8	9	10	11	Corr
RCM	0.0194***	0.0115***	0.0130***	0.0135***	0.0141***							0.4998
I		0.3439***	0.2510**	0.2305*	0.2281*							0.0356
Pr			0.1367***	0.1279**	0.1258**							0.0267
P				-0.0026	-0.0025							0.0086
Ep					0.0014							0.0023
Ip						0.7040***	0.3918***	0.3325**	0.2289*	0.2248*	0.2377*	0.5001
Me							0.3917***	0.3795***	0.3892***	0.3622***	0.3382***	0.0564
In								0.0023	-0.0105**	-0.0162***	-0.0164***	0.0025
Is									0.0164***	0.0142***	0.0135***	0.0593
T										0.0088	0.0072	0.0072
Mc											0.0028	0.0012
p-value	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	
R^2	0.4998	0.5354	0.5621	0.5707	0.5730	0.5001	0.5565	0.5590	0.6183	0.6255	0.6267	

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

Appendix B: Country Groups Based on Income Level

	Country		Country		Country
Group 1	Albania	Group 2	Argentina	Group 3	Australia
	Algeria		Bahrain		Austria
	Armenia		Botswana		Belgium
	Azerbaijan		Brazil		Canada
	Bangladesh		Bulgaria		Cyprus
	Benin		Chile		Denmark
	Bolivia		Costa Rica		Finland
	Bosnia and Herzegovina		Croatia		France
	Cambodia		Czech Republic		Germany
	Cameroon		Estonia		Greece
	Chad		Hungary		Hong Kong SAR
	China		Jamaica		Iceland
	Colombia		Korea, Rep		Ireland
	Dominican Republic		Latvia		Israel
	East Timor		Lithuania		Italy
	Ecuador		Malaysia		Japan
	Egypt		Malta		Kuwait
	El Salvador		Mauritius		Luxembourg
	Ethiopia		Mexico		Netherlands
	Gambia		Panama		New Zealand
	Georgia		Poland		Norway
	Ghana		Portugal		Qatar
	Guatemala		Romania		Singapore
	Guyana		Russian Federation		Spain
	Honduras		Slovak Republic		Sweden
	India		Slovenia		Switzerland
	Indonesia		South Africa		United Arab Emirates
	Jordan		Taiwan		United Kingdom
	Kazakhstan		Trinidad and Tobago		United States
	Kenya		Turkey		
	Kyrgyz Republic		Uruguay		
	Macedonia, FYR		Venezuela		
	Madagascar				
	Malawi				
	Mali				
	Moldova				
	Mongolia				
	Morocco				
	Mozambique				
	Namibia				
	Nicaragua				
	Nigeria				
	Pakistan				
	Paraguay				
	Peru				
	Philippines				
	Serbia and Montenegro				
	Sri Lanka				
	Tajikistan				
	Tanzania				
	Thailand				
	Tunisia				
	Uganda				
	Ukraine				
	Vietnam				
	Zimbabwe				

Appendix C: i) Country Groups Based on Openness

	Country		Country		Country		Country
Group 1	Albania	Group 2	Azerbaijan	Group 3	Armenia	Group 4	Argentina
	Algeria		Bangladesh		Austria		Bulgaria
	Australia		Belgium		Benin		Cambodia
	Bahrain		Brazil		Bolivia		Cameroon
	Bosnia and Herzegovina		Chad		Botswana		Denmark
	Canada		Colombia		Chile		Egypt
	China		Czech Republic		Costa Rica		Guatemala
	Dominican Republic		Ethiopia		Croatia		Honduras
	East Timor		Finland		Cyprus		Hungary
	Estonia		Germany		Ecuador		Iceland
	Gambia		Ghana		El Salvador		India
	Ireland		Greece		France		Indonesia
	Italy		Japan		Georgia		Jordan
	Jamaica		Luxembourg		Guyana		Korea, Rep
	Kazakhstan		Macedonia, FYR		Hong Kong SAR		Kuwait
	Latvia		Malawi		Israel		Kyrgyz Republic
	Mauritius		Moldova		Kenya		Lithuania
	Paraguay		Mozambique		Malta		Madagascar
	Philippines		New Zealand		Mongolia		Malaysia
	Qatar		Nigeria		Morocco		Mali
	Serbia and Montenegro		Pakistan		Namibia		Mexico
	Slovak Republic		Panama		Nicaragua		Netherlands
	Slovenia		Portugal		Norway		Peru
	Sri Lanka		South Africa		Poland		Romania
	Switzerland		Spain		Taiwan		Russian Federation
	Trinidad and Tobago		Tunisia		Tanzania		Singapore
	Ukraine		United Arab Emirates		Thailand		Sweden
	Uruguay		United Kingdom		Turkey		Tajikistan
	Venezuela		Vietnam		Uganda		United States

ii) Econometric Test for Country Groups Based on Openness

Variables \ Models		IFDI			OFDI		
		5.1	5.2	5.3	6.1	6.2	6.3
Group 1	RCM	-0.0180*		-0.0116	-0.0019		0.0016
	I	1.0157**		0.7793*	0.8475***		0.7014**
	Is		-0.0280**			0.0023	
	Mc		-0.0111			-0.0058	
	T		0.0118			0.0263**	
	Ip		-0.3425			0.4633	
	Me		1.2308***			0.3626	
	In		0.0112			-0.0226**	
	P			-0.0094**			0.0004
	Ep			0.0015			0.00001
	Pr			0.0022			0.1389*
	p-value	0.0189	0.0012	0.0266	<.0001	<.0001	<.0001
	Adj R^2	0.2063	0.4960	0.2760	0.6225	0.6555	0.6312
Group 2	RCM	0.0086		0.0058	0.0187***		0.0198***
	I	-0.2049		-0.1747	0.0015		-0.0738
	Is		0.0219			0.0171	
	Mc		0.0427**			0.0193	
	T		-0.0561**			0.0141	
	Ip		-0.2266			0.1405	
	Me		0.1284			0.0913	
	In		0.0004			-0.0367**	
	P			-0.0163***			-0.0067
	Ep			-0.0044			0.0024
	Pr			-0.2375			0.0838
	p-value	0.6099	0.0992	0.0578	0.0004	0.0012	0.0029
	Adj R^2	-0.0367	0.1860	0.2145	0.4099	0.4977	0.4196
Group 3	RCM	-0.0040		-0.0042	-0.0035		0.0017
	I	0.3187		0.3317	1.4004***		1.2470**
	Is		0.0206**			0.0168**	
	Mc		0.0127			-0.0191**	
	T		-0.0407**			-0.0059	
	Ip		-0.6361**			0.5033**	
	Me		1.2483***			0.9939***	
	In		-0.0022			0.0052	
	P			-0.0094			-0.0046
	Ep			-0.0015			0.0038
	Pr			0.0682			0.1491
	p-value	0.8763	<.0001	0.7224	<.0001	<.0001	<.0001
	Adj R^2	-0.0660	0.6223	-0.0832	0.6173	0.8419	0.6286
Group 4	RCM	-0.0026		-0.0021	0.0055		0.0069
	I	0.4516**		0.3880	0.4295**		0.3857*
	Is		0.0185*			0.0154*	
	Mc		-0.0021			-0.0018	
	T		-0.0121			-0.0013	
	Ip		-0.0688			0.4324*	
	Me		0.6883**			0.2240	
	In		-0.0100			-0.0113	
	P			-0.0074			-0.0007
	Ep			-0.0067			0.0019
	Pr			-0.1220			0.0498
	p-value	0.0039	0.0159	0.0078	<.0001	<.0001	<.0001
	Adj R^2	0.2880	0.3277	0.3483	0.6092	0.6424	0.5725

Notes: * Level of significance is 0.10
** Level of significance is 0.05
*** Level of significance is 0.01

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