

Economic Freedom and Indian Outward Foreign Direct Investment: An Empirical Analysis

Amar Anwar and Mazhar Mughal

Cape Breton University, Sydney, Canada, University of Pau, France

16. September 2012

Online at http://mpra.ub.uni-muenchen.de/49610/ MPRA Paper No. 49610, posted 8. July 2014 16:17 UTC



Volume 32, Issue 4

Economic Freedom and Indian Outward Foreign Direct Investment: An Empirical Analysis

Amar Iqbal Anwar Shannon School of Business, Cape Breton University, Canada Mazhar Mughal Centre d''Analyse Théorique et Traitement des Données Economiques, Université de Pau

Abstract

This study examines the role economic freedom plays in attracting Indian outward foreign direct investment to various countries. Investments by Indian multinationals to various continents are studied along with aggregate investment outflows. Results show that Indian outward FDI do appear to prefer economically free economies. Government size, ease of foreign trade, and market regulations are the aspects of economic freedom Indian investors appear to cherish, while legal structure does not seem to influence the volume of investments by Indian multinationals.

Research for this article was conducted during Dr. Anwar's stay at Ryerson University, Canada as a research associate. The author is grateful to the university for providing the means to carry out this study. The authors also thank Dr. Murtaza Haider, Ryerson University, as well as the anonymous reviewer for his useful comments on the article's earlier versions.

Citation: Amar Iqbal Anwar and Mazhar Mughal, (2012) "Economic Freedom and Indian Outward Foreign Direct Investment: An Empirical Analysis", *Economics Bulletin*, Vol. 32 No. 4 pp. 2991-3007.

Contact: Amar Iqbal Anwar - amar_anwar@cbu.ca, Mazhar Mughal - mayher.yasinmughal@univ-pau.fr.

Submitted: September 16, 2012. Published: October 28, 2012.

1. Introduction

In recent years, there has been an increasing interest in the evolution of multinational corporations (MNCs) from emerging economies such as India. Indian MNCs have witnessed enormous growth over the last few years (table 1). This can be appreciated by the fact that several Indian multinationals now appear in the Fortune 500 list (table 2).

Table 1: Growth of Indian outward foreign direct investment

| | | Total Indian OFDI | % Increase or Decrease |
|---------|--------------------------|-------------------|------------------------|
| Year | No. of approved Projects | (US\$ - million) | in OFDI |
| 2000-01 | | 1211.85 | |
| 2001-02 | 908 | 981.67 | -18.99 |
| 2002-03 | 1034 | 1798.44 | 83.20 |
| 2003-04 | 1214 | 1496.74 | -16.78 |
| 2004-05 | 1281 | 1893.04 | 26.48 |
| 2005-06 | 1395 | 5099.22 | 169.37 |
| 2006-07 | 1817 | 13925.96 | 173.10 |
| 2007-08 | 2261 | 18749.00 | 34.63 |
| 2008-09 | 3709 | 15947.76 | -14.94 |

Source: Indian Ministry of Finance (2012)

Table 2: Fortune 500 Indian MNCs

| Country Rank | Company | Global 500 rank | Revenues (\$ millions) | |
|-----------------|---------------------------------|--------------------|------------------------|--|
| 1 | Indian Oil Corporation | 98 | 68,837 | |
| 2 | Reliance Industries | 134 | 58,900 | |
| 3 | Bharat Petroleum | 272 | 34,102 | |
| 4 | State Bank of India | 292 | 32,450 | |
| 5 | Hindustan Petroleum Corporation | 336 | 28,593 | |
| 6 | Tata Motors | 359 | 27,046 | |
| 7 | Oil & Natural Gas Corporation | 361 | 26,945 | |
| 8 | Tata Steel | 370 | 26,065 | |

Source: http://money.cnn.com/magazines/fortune/global500/2011/countries/India.html

Outward Foreign Direct Investment (OFDI) from Indian MNCs has not only grown in absolute terms, but also relative to other emerging markets' MNCs. During the period of 1992-2004, the annual average growth rate of Indian OFDI was 52 percent as compared to MNCs from Turkey 26 percent, Malaysia 22 percent, Russian Federation 12 percent, Singapore 12 percent and South Korea 9 percent (UNCTAD, 2006). These MNCs have not only invested in developing countries at similar level of technological development, but also in the developed countries having a

technological edge over their emerging counterparts. As shown in figure 1, seven out of the top ten destinations for Indian outward investments are developed countries.

Switzerland 1065.12 Other Countries Denmark Singapore 2% 9055.05 1289.97 14282.1 15% 2% 23% Russia 1939.87 UAE 3% 2158.91 3% Cyprus 4677.89 Netherlands 8% 10608.8 17% U.K 5350.37 9% Mauritius USA 5753.16 5589.64 9% 9%

Figures 1: Top ten countries receiving Indian OFDI during 2000 – 2008

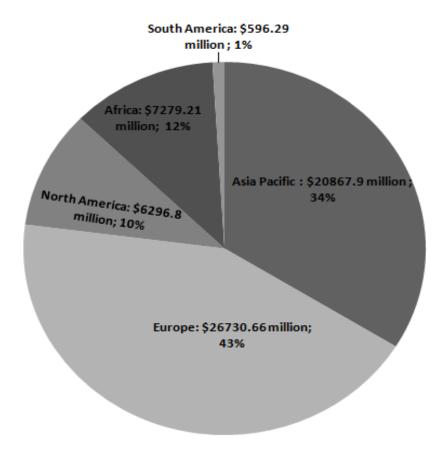
Source: Authors' calculations based on the data from Indian Ministry of Finance (2012)

During the 2000 to 2008 period, total Indian OFDI was accounted to be \$ 61.103 billion with an average of \$ 6.79 billion per year. Europe attracted the maximum amount of Indian OFDI (43%) followed by Asia Pacific (34%), Africa (12%), North America (10%) and South America (1%) for the period of 2000 -2008 (figure 2). These investment flows dropped by 14.94 percent during the year 2008-2009 compared to the previous year due to the ongoing economic and financial crisis, even though the number of overseas projects continued to rise (table 1). Tight liquidity situation prevailing in the EU, North America and other countries made it harder for Indian firms to invest vigorously. Indian multinational corporations continued to increase their overseas operations in the primary and services sectors during the financial crisis but decreased their investments in the manufacturing sector, the latter fact possibly due to the cut in global demand (Pradhan, 2010).

This raises the question as to why Indian MNCs invest in certain countries, and not in others. What are the factors that drive the decision to invest in a country and the amount of capital to be

invested? These motives to invest have increasingly come under scrutiny with the growing importance of cross-country investment in the last few decades.

Figure 2: Geographic Distribution of Indian OFDI (\$ million) during 2000 – 2008



Source: Authors' calculation based on the data from Indian Ministry of Finance (2012)

The motives of multinational corporations have shifted all over the world from market and resource-seeking FDI to efficiency-seeking FDI (Dunning, 2002). Analysts are increasingly examining the role of institutional determinants of FDI such as governance and economic freedom (henceforth EF) in this context. According to Berggren (2003), "Economic freedom is a composite that attempts to characterize the degree to which an economy is a market economy—that is, the degree to which it entails the possibility of entering into voluntary contracts within the framework of a stable and predictable rule of law that upholds contracts and protects private property, with a limited degree of interventionism in the form of government ownership, regulations, and taxes".

EF attracts more FDI inflows into the host countries as it reduces inefficiencies, deadweight losses and uncertainties (Voyer and Beamish, 2004). There are a number of reasons why economic freedom might foster foreign investment in an economy. Firstly, EF provides ample opportunities for MNCs to explore and exploit their resources efficiently. Secondly, it provides an effective legal framework in the forms of judicial independence and protection of intellectual

property in the host country. In the absence of EF, multinational corporations (MNCs) prefer to limit their overseas operations. Imposing restrictions makes it harder for MNCs to perform their operations by internalizing new technology (Azman-Saini et al., 2010). Thirdly, economic freedom involves a business-friendly and stable macroeconomic environment. Volatility in the future exchange rate may affect the entry decisions of MNCs. Under such fluctuating conditions, firms would keep their investments on hold (Campa, 1993). UNCTAD (1995, 287) suggests that in order to attract FDI inflows, it is necessary to utilize local sources, have supportive macroeconomic policies and a stable exchange rate. Lastly, the concept of economic freedom includes the existence of business, credit and labor regulations required to ensure smooth functioning of international trade and international business. Flexible labor laws and access to sound money, for example, are considered to be important determinants of financial sector FDI (Conklin, 2002).

In this study, we examine the role of economic freedom in driving Indian Outward FDI to various OECD and non-OECD countries. The study makes several contributions to the relevant literature. Firstly, we use a composite Economic Freedom index to represent a country's comparative international standing in relation to economic freedom. Previously, studies on FDI outflows from emerging economies have incorporated institutional factors such as corruption, bureaucratic hurdles, political stability or law and order. The use of a more comprehensive EF index that takes into account different economic, social and cultural factors important in attracting FDI inflows can improve the analysis (Lau and Lam, 2002; Heriot et al., 2008). Secondly, to the best of our knowledge, there is no empirical study that takes into account the impact of economic freedom on OFDI from emerging markets. In this study, we analyze the impact of EF on Indian OFDI for the period from 2000 to 2008 using a panel data, thereby studying the temporal dimension of the relationship. Thirdly, we analyze this impact on both aggregate as well as disaggregate (regional) levels. The rest of the paper is organized as follows. Section 2 presents the theoretical underpinnings and briefly overviews the relevant empirical literature. Section 3 illustrates the methodology used for this study. Section 4 gives some key findings and looks at possible explanations. The last section concludes our study.

2. Theoretical background and Literature Review

According to Dunning's 1979 *eclectic theory of FDI*, in order to carry out FDI, a firm must possess ownership, locational and internalization advantages. The locational advantages are either in the form of input availability or in the form of host country policies. Rugman and Verbeke (2001) suggest that foreign trade and foreign direct investment can be distinguished on the basis of location advantages. When firms decide to cover the overseas market via trade they need to follow international trade rules and regulations. On the other hand, when firms decide to invest in a country, they have to directly interact with the host country's society and economic system, and deal with problems like corruption, bureaucratic control, red-tapism and inefficient institutions (Gopinath and Echeverria, 2004). Abramovitz (1986) proposes that in order to set up an overseas operation, MNCs need a certain degree of social capacity, which, in turn, is related to an adequate level of human capital, economic and political stability, market liberalization and sufficient infrastructure. In other words, a certain level of EF is required before firms can take up overseas operations.

Studies such as Bengoa and Robles (2003) and Subasat and Bellos (2011) focus on the empirical estimation of the relationship between EF and FDI. Most of these studies find that economic freedom has played a decisive role in attracting FDI inflows. For instance, Bengoa and Robles (2003) analyze the impact of EF on foreign direct investment and economic growth for a panel of 18 Latin American countries for the period from 1970 to 1999. They find that EF in the host country has a positive and substantial role in attracting FDI and enhancing economic growth. In the same vein, Subasat and Bellos (2011) use the gravity model to analyze the impact of EF on inward foreign direct investment for a sample of Latin American countries from 1985 to 2008. They find that MNCs are encouraged by the presence of adequate business regulations in the host countries. Other studies that find a positive role of EF in attracting inward FDI include Caetano and Caleiro (2009), Heriot et al. (2008), Quazi and Rashid (2004) and Vibha (2007).

Some studies have explored the role of institutional factors in attracting OFDI from emerging countries. For example, Duanmu and Guney (2009) analyze the locational determinants of Chinese and Indian outward foreign direct investment, and find that sound institutional environment in the host countries attracts more FDI from China but not from India. Chinese multinational corporations target countries with open economic regimes, depreciated host currencies, better institutional environment and English language. None of these factors appears to be vital for Indian MNCs. In contrast, De Beule (2010) reports that political stability and control of corruption do not seem to be prerequisites for either Chinese or Indian MNCs for overseas acquisitions from 2000 to 2008. Fung and Herrero (2012) show that Chinese MNCs invest in more corrupt economies while Indian firms invest in countries with less corruption and better law-and-order.

The above mixed results do not permit to draw a clear inference regarding the role of institutions in determining Indian OFDI. In what follows, we attempt at reaching a clearer picture using the elaborate concept of economic freedom.

3. Empirical Model

Our empirical model is comprised of variables that are shown in the literature to be key drivers of foreign direct investment. Market size is an important location determinant of FDI that helps to improve a firm's internal capabilities and makes it easier for MNEs to exploit as well as explore the firm's specific ownership advantages. Firms are unable to attain economies of scale and efficient utilization of factors of production owing to small and segregated markets (Chakrabarti, 2001; Lunn, 1980; UNCTAD, 1998). A major part of FDI inflows to India and China are probably due to their large markets. Similarly, OFDI from emerging markets such as India should also seek large markets in the EU and North America. The location decision of MNEs is based on long-term planning. Therefore, firms hesitate to invest in those countries where the market may not be expected to grow in the long run (UNCTAD, 1998), and consequently, prefer investing in growing markets (Billington, 1999; Root and Ahmad, 1979; Culem, 1988). Higher profits can be expected in rapidly growing economies (Lim, 1983). Another important location determinant is geographical distance. According to Johanson and Vahlne (1977), during the initial stage of internationalization firms choose those locations that are closer to their home market. The bulk of OFDI from emerging countries goes to other developing countries in the South, as these countries face similar problems and opportunities

(UNCTAD, 2006). However, after gaining experience firms begin to aim at larger and more distant markets which require a more advanced level of technical know-how.

Inflation is another factor affecting foreign investment flows. High inflation in the host country hurts FDI inflows, as inflationary pressures tighten financial market conditions and lead to an increase in nominal wages and taxes (UNCTAD, 2006). In addition, the presence or possibility of natural resource extraction is yet another factor attracting FDI inflows. A country rich in natural resources attracts more FDI inflows because these resources provide better opportunities for cheaper inputs through backward vertical FDI (Han and Brewer, 1987).

MNCs tend to avoid risks and thus invest more in familiar territories. Therefore, they prefer to invest in those countries where they have already invested in the previous years. We account for this possibility by adding the lagged value of Indian OFDI as an explanatory variable.

Taking into account these determinants, our parsimonious model can be written as:

LIOFDI $_{i,t} = \alpha + \beta_1$ LIOFDI $_{i,t-1} + \beta_2$ Economic Freedom $_{i,t} + \beta_3$ Market Size $_{i,t} + \beta_4$ GDP Growth $_{i,t} + \beta_5$ Inflation $_{i,t} + \beta_6$ Natural Resources $_{i,t} + \beta_7$ Distance $_{i,t} + \beta_7$ Language $_{i,t} + \varepsilon$

Where LIOFDI $_{i,t}$ is the log of Indian OFDI in country 'i' at time 't'. LIOFDI $_{i,t-1}$ is lag of Indian OFDI in country 'i' at time 't'.

As mentioned earlier, this study explores the relationship between EF and Indian OFDI at aggregate as well as regional levels. At the disaggregate level¹, regions are classified into OECD (29 countries), non-OECD (45 countries), Asia Pacific (27 countries), European (25 countries), North American (4 countries) and African (15 countries). This classification is based on the UN Geographical regional classification (2002). South America is included at aggregate level, but dropped for the region-wise analysis due to lack of sufficient data.

Data on Indian outward foreign direct investment (OFDI) have been obtained from the 'Indian Ministry of Finance (2012)' and are given in millions of \$ US. The dataset comprises 74 countries. Data on economic freedom comes from the Fraser Institute economic freedom index which consists of approximately 40 independent variables grouped into five major components. These components are government size (GOVT), legal structure and security of property rights (LEGAL), access to sound money (MONEY), freedom to trade with foreigners (TRADE) and market regulations (REG).

GDP (constant 2000 US dollar) is used to measure the host country market size. Annual percentage increase in the GDP is taken as the measure of the host country's growth rate, while the host country's consumer price index is used to measure the inflation rate. The proportion of ores and metals to the merchandise exports indicates the natural resource endowment of the host country. The latter factor is potentially endogenous to OFDI, as it can be both the consequence as well as the motivation behind Indian OFDI². The variable is therefore taken with a lag of one year.

¹ For the list of countries: see Appendix – Table A-1.

² We thank the anonymous reviewer for pointing it out.

Data on GDP, GDP growth, inflation and natural resources come from the World Bank World Development Indicators database (2011). A binary variable 'Language' is included in the model to account for the fact that Indian investors find it easier to invest in the economies where English is widely spoken and language barriers are minimal. If English is the first or second main language in the host country, then English is considered as a medium of instruction and is assigned a value 1 otherwise 0. The data on dummy variable 'English language' come from the CIA World Fact book online statistics. The variable for geographic distance from each country is measured as the distance (in kilometers) between the geographical centers of both countries (India & the host country) and is taken from 'Google Maps Distance Calculator'. In this study, we treated GDP, GDP growth, inflation, natural resources and distance as control variables. All of these variables are taken in log form except inflation and GDP growth due to the presence of negative values in these variables. Summary statistics for the variables are given in Table 3.

Table 3: Summary statistics

| Variable | Observations | Mean | Std. Dev. | Min | Max |
|--------------------------|--------------|---------|-----------|---------|----------|
| Log of Indian OFDI | 518 | 1.4019 | 2.8094 | -4.6052 | 9.0313 |
| EF Mean | 636 | 6.87012 | 0.8965 | 3.576 | 9.052 |
| GOVT | 636 | 6.0326 | 1.3153 | 2.5600 | 9.3500 |
| LEGAL | 636 | 6.3235 | 1.7575 | 1.9800 | 9.6200 |
| MONEY | 636 | 8.2862 | 1.4230 | 2.5500 | 9.8400 |
| TRADE | 635 | 7.0825 | 1.1455 | 1.3400 | 9.7800 |
| REG | 636 | 6.6283 | 1.0390 | 3.6200 | 8.9100 |
| Log of GDP | 656 | 25.0553 | 1.9355 | 20.9767 | 30.0881 |
| GDP Growth | 663 | 6.0938 | 14.4099 | -7.7320 | 199.2760 |
| Inflation | 656 | 5.7876 | 7.0075 | -8.2378 | 57.0745 |
| Log of Natural Resources | 633 | 0.9746 | 1.3325 | -5.8781 | 4.1587 |
| Log of Distance | 666 | 8.5923 | 0.5718 | 6.9210 | 9.6872 |
| Language | 666 | 0.5135 | 0.5001 | 0 | 1 |

We applied the *random effects* estimation (RE) technique to analyze our models. This choice is based on the results of the *Hausman test*. The Lagrange Multiplier test indicates that the use of the random effect model might be preferable to the Pooled Ordinary Least Squares model.

We also test our model for heteroskedasticity and omitted variable bias, and find the model correctly specified. Our empirical analysis proceeds in two steps: First, we examine the impact of EF on Indian OFDI on aggregate and disaggregate levels, taking EF as an average (arithmetic mean) of its five constituent indices (GOVT, LEGAL, MONEY, TRADE and REG). In the

second step, we study the role of EF's constituent indicators separately to understand which aspects of economic freedom drive Indian MNC investments the most.

4. Results and Discussion

Results for the first step estimations (table 4) show a significant positive impact of EF on OFDI. The relationship is found highly significant (1%) for all regions except for Europe and the group of OECD countries for which it is significant at 5 %. The association for North America, even though with a similar sign, is found statistically insignificant. The latter result may be due to the small number of observations for the region.

In addition, OFDI to all regions is strongly influenced by a prior experience of Indian investments in the region. The findings also indicate that Indian overseas projects appear to be driven by the prior knowledge of these markets. Log of GDP, the indicator of market size, is found to be positively and highly significantly associated with Indian OFDI for all regions, except for Africa, which shows an insignificant relationship.

Contrary to our expectations, inflation seems to be positively associated with Indian OFDI, although the relationship is significant only in the case of Europe, non-OECD countries and in the overall sample (Table 4). This implies that Indian MNCs have tended to invest, particularly in Europe, under moderate demand-driven inflation. Distance is negatively and significantly associated with Indian OFDI in the Asian pacific region (a standard finding in the literature) except for the North American region where the relationship is positive. This is logical given that a big proportion of Indian OFDI has gone to the latter-mentioned region, despite its distance from India. Another interesting finding pertains to linguistic affinity, which is found to be mostly positive. This is significantly associated with Indian OFDI to Europe and North America.

The relationship between log of natural resources and Indian OFDI is also found to be positive though little significant. Emerging economies such as China, India, South Korea, and Malaysia have been scrambling for natural resources in the last decade. They have sought hydrocarbon exploration contracts, metals and mineral mining concessions in order to guarantee access to raw materials for their burgeoning industrial and domestic demand. As mentioned earlier, most of the Indian firms investing abroad for natural resources have been state-owned enterprises. Indian MNCs have continued to invest in the natural resources sector abroad despite the slackening demand for raw materials due to the 2008-09 global economic slowdowns (Pradhan, 2010).

Similar results are obtained using the five indices composing the EF index (table 5). The lagged value of OFDI representing the Indian MNCs' investment history, and consequently their prior knowledge of the host market, is found positive and highly significant. MNCs prefer to set up overseas projects in the countries whose market conditions, language, law, economic and political situation they are already familiar with (Caves, 1971). Earlier studies on Indian OFDI (such as Lall 1982; Anwar and Mughal 2012) also report that Indian firms usually set up their subsidiaries in the countries where they have already gained information on customer choice, foreign market, host countries' economic policies and legal framework through their exports and investment experience.

Table 4: Economic freedom (as an average) and Indian OFDI during 2000 – 2008

| VARIABLES | All Countries (1) | OECD (2) | Non-OECD (3) | Asia (4) | Europe (5) | North America (6) | |
|---|-------------------------|-----------------|--------------|------------|------------|-------------------------|---|
| | LIOFDI | LIOFDI | LIOFDI | LIOFDI | LIOFDI | LIOFDI | |
| Log of Indian OFDI (lagged) | 0.4946*** | 0.5042*** | 0.5002*** | 0.4977*** | 0.4960*** | 0.3975* | (|
| | (0.0439) | (0.0723) | (0.0537) | (0.0699) | (0.0717) | (0.2034) | |
| EF Mean | 1.4173*** | 1.8568** | 1.5584*** | 2.4057*** | 1.7070** | 3.3355 | 2 |
| | (0.3045) | (0.7310) | (0.3119) | (0.4761) | (0.6699) | (2.6484) | |
| Log of GDP | 0.3514** | 1.0270*** | 0.5035*** | 0.5445** | 0.5909** | 1.5314*** | |
| | (0.1450) | (0.3437) | (0.1675) | (0.2526) | (0.2987) | (0.3373) | |
| Inflation | 0.0452* | 0.0055 | 0.0634** | 0.0344 | 0.4253*** | 0.1680 | |
| | (0.0240) | (0.0478) | (0.0268) | (0.0290) | (0.1163) | (0.3005) | |
| Log of Distance | -0.5583 | -0.6029 | -0.4047 | -2.9979*** | 0.2732 | 21.5159*** | |
| | (0.5050) | (1.6329) | (0.4522) | (0.8357) | (4.1935) | (5.9623) | |
| Log of Natural Resources (lagged) | 0.3724* | 1.3986 | 0.3118 | 0.1762 | 1.8180* | 4.4661 | |
| | (0.2014) | (1.1020) | (0.1945) | (0.2713) | (1.1009) | (3.1919) | |
| Language | 0.6855 | 0.5426 | -0.5130 | -0.3844 | 2.3935** | 1.9648*** | |
| | (0.5505) | (1.0162) | (0.6228) | (0.9978) | (1.0934) | (2.7457) | |
| Constant | -13.3877** | -34.9839** | -17.9809*** | -4.7478 | -31.0709 | -270.7605*** | |
| | (5.3870) | (14.7565) | (6.3431) | (8.3767) | (34.9061) | (69.6805) | (|
| Observations | 358 | 156 | 202 | 129 | 131 | 26 | |
| Number of Countries Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 | 67 | 28 | 39 | 23 | 24 | 4 | |

Likewise, market size is positively and highly significantly associated with Indian OFDI in all our models. As re between the composing indices of EF and OFDI, the index 'GOVT' seems to be positively and highly significantly significant to be positively and highly significantly significant s Indian OFDI in almost all regressions. Similarly, the index 'REG' is found positive and highly significant in al for North America where the relationship is insignificant. Alternatively, we include the 'LEGAL' index with insignificant relationship (column 2, table 5). The 'MONEY' index appears to be insignificantly linked with Ir & 4, table 5). Nonetheless, the index appears to be a significant driver of Indian OFDI at the disaggregate leve America, OECD countries and Europe (column 1 & 5, table 6 & 7).

Table 5: Economic freedom (5 indices) and Indian OFDI during 2000 – 2008

| VARIABLES | LIOFDI | LIOFDI | LIOFDI | LIOFDI |
|-----------------------------------|------------|------------|------------|------------|
| | (1) | (2) | (3) | (4) |
| Log of Indian OFDI (lagged) | 0.4818*** | 0.4833*** | 0.4793*** | 0.4804*** |
| | (0.0425) | (0.0423) | (0.0421) | (0.0425) |
| GOVT | 0.6537*** | 0.6747*** | 0.6098*** | 0.6625*** |
| | (0.1521) | (0.1602) | (0.1526) | (0.1533) |
| LEGAL | | 0.0831 | | |
| | | (0.1645) | | |
| MONEY | 0.0858 | | | 0.1029 |
| | (0.1810) | | | (0.1829) |
| TRADE | | | 0.4044* | |
| | | | (0.2217) | |
| REG | 0.8203*** | 0.8052*** | 0.9039*** | 0.8119*** |
| | (0.1818) | (0.1950) | (0.1751) | (0.1833) |
| Log of GDP | 0.4475*** | 0.4424*** | 0.4946*** | 0.4554*** |
| | (0.1352) | (0.1404) | (0.1367) | (0.1375) |
| GDP Growth | | | | 0.0087 |
| | | | | (0.0126) |
| Inflation | 0.0160 | 0.0114 | 0.0063 | 0.0131 |
| | (0.0264) | (0.0226) | (0.0222) | (0.0268) |
| Log of Distance | -0.4686 | -0.4478 | -0.3904 | -0.4519 |
| | (0.4779) | (0.4795) | (0.4789) | (0.4862) |
| Log of Natural Resources (lagged) | 0.3507* | 0.3500* | 0.3522* | 0.3554* |
| _ | (0.1946) | (0.1941) | (0.1931) | (0.1944) |
| Constant | -16.391*** | -16.254*** | -14.847*** | -16.917*** |
| | (5.1015) | (5.1863) | (5.2488) | (5.2061) |
| Observations | 358 | 358 | 358 | 358 |
| Number of Countries | 67 | 67 | 67 | 67 |
| Standard errors in parentheses | | | | |
| *** p<0.01, ** p<0.05, * p<0.1 | | | | |
| | | | | |

We also replaced this index with the 'TRADE' index, and found weakly significant results (column 3, table 5). However, the index is found highly significant in the case of an OECD region (column 1, table 7), and significant at 5 percent in case of Europe and North America (column 4 & 5, table 7). The importance that Indian MNCs seem to attach to the ease of doing business across borders in deciding about their overseas investments in our study corroborates the findings of Corcoran and Gillanders (2012). The latter study finds that for a large set of countries, trading facility is the most important component of the World Bank's Ease of Doing Business index that attracts foreign investment to the country. Corcoran and Gillanders, however, find no significant role of trade in attracting foreign investments for OECD as well as Sub-Saharan Africa, whereas we find such an insignificant relationship in the case of Africa.

Table 6: Economic freedom and Indian OFDI at disaggregate level during 2000 – 2008

| VARIABLES | OECD | Non-OECD | Asia | Europe | North America | Afı |
|-----------------------------------|------------|-------------|-----------|-----------|------------------|-------|
| | (1) | (2) | (3) | (4) | (5) | (6 |
| | LIOFDI | LIOFDI | LIOFDI | LIOFDI | LIOFDI | LIO |
| Log of Indian OFDI (lagged) | 0.4607*** | 0.5032*** | 0.5087*** | 0.4667*** | 0.3339** | 0.559 |
| | (0.0688) | (0.0534) | (0.0696) | (0.0712) | (0.1661) | (0.1) |
| GOVT | 0.3037 | 0.6647*** | 0.7905*** | 0.5920** | -2.6596 | 0.5 |
| | (0.2487) | (0.2106) | (0.2612) | (0.2627) | (1.8926) | (0.4 |
| MONEY | 1.0668** | 0.0279 | -0.0572 | 0.2316 | 4.2771*** | 0.5 |
| | (0.4605) | (0.1923) | (0.3056) | (0.3075) | (1.2389) | (0.5) |
| REG | 1.3378*** | 0.6231*** | 0.8658*** | 1.3106*** | 1.1290 | 0.85 |
| | (0.3623) | (0.2109) | (0.2449) | (0.4026) | (0.9784) | (0.4 |
| Log of GDP | 0.8566*** | 0.5858*** | 0.7643*** | 0.4440* | 1.4786*** | 0.3 |
| | (0.3123) | (0.1720) | (0.2613) | (0.2564) | (0.2913) | (0.5 |
| Inflation | 0.0686 | 0.0260 | -0.0125 | 0.3334*** | 0.6462** | 0.0 |
| | (0.0544) | (0.0304) | (0.0336) | (0.1192) | (0.2553) | (0.0) |
| Log of Distance | -1.3886 | -0.0907 | -1.9236** | 0.1982 | 31.5691*** | 0.0 |
| | (1.4447) | (0.4630) | (0.8496) | (3.6347) | (10.5224) | (2.7 |
| Log of Natural Resources (lagged) | 0.6949*** | 0.3139 | 0.1333* | 1.2655 | 2.7587 | 0.37 |
| | (1.0753) | (0.1933) | (0.2640) | (1.1032) | (2.7394) | (0.2) |
| Constant | -30.7633** | -20.9822*** | -13.0452 | -27.3983 | -367.0903*** | -22. |
| | (13.8822) | (6.5086) | (8.8205) | (30.5267) | (104.0661) | (28.2 |
| Observations | 156 | 202 | 129 | 131 | 26 | 5 |
| Number of Countries | 28 | 39 | 23 | 24 | 4 | 1 |
| Standard errors in parentheses | | | | | | |

^{***} p<0.01, ** p<0.05, * p<0.1

Table 7: Economic freedom (TRADE) and Indian OFDI at disaggregate level during 2000 – 2008

| VARIABLES | OECD | Non-OECD | Asia | Europe | North America | Africa |
|---|-----------|-------------|-----------|-----------|------------------|-----------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | LIOFDI | LIOFDI | LIOFDI | LIOFDI | LIOFDI | LIOFDI |
| Log of Indian OFDI (lagged) | 0.4060*** | 0.5051*** | 0.5120*** | 0.4414*** | 0.2811* | 0.5625*** |
| | (0.0658) | (0.0542) | (0.0739) | (0.0724) | (0.1544) | (0.1075) |
| GOVT | 0.1090 | 0.6982*** | 1.0908*** | 0.5688** | -2.1588 | 0.6108 |
| | (0.2544) | (0.2178) | (0.2580) | (0.2886) | (1.7521) | (0.4985) |
| MONEY | 1.8072*** | 0.1375 | 0.1789 | 0.6249** | 5.1537*** | 0.4767 |
| | (0.4397) | (0.1894) | (0.3133) | (0.3101) | (1.0517) | (0.5453) |
| TRADE | 2.3445*** | 0.4762* | 0.0417 | 1.0732** | 1.8190** | 0.6140 |
| | (0.4532) | (0.2763) | (0.4260) | (0.4800) | (0.8310) | (0.6479) |
| Log of GDP | 0.4328 | 0.4856*** | 0.8006*** | 0.4377 | 1.2957*** | 0.2641 |
| | (0.3599) | (0.1769) | (0.2726) | (0.2774) | (0.2855) | (0.4677) |
| Inflation | 0.0892* | 0.0449 | -0.0002 | 0.3033** | 0.6806*** | 0.0383 |
| | (0.0516) | (0.0305) | (0.0352) | (0.1208) | (0.2349) | (0.0631) |
| Log of Distance | 1.3378 | -0.2899 | -1.5005* | 4.1703 | 26.3653*** | -0.8106 |
| | (1.5671) | (0.4660) | (0.8934) | (3.9666) | (9.7666) | (2.6318) |
| Log of Natural Resources (lagged) | 0.6126 | 0.2847 | 0.0899 | 1.1079 | 3.5685 | 0.3355 |
| | (1.0031) | (0.1960) | (0.2777) | (1.1197) | (2.1780) | (0.2893) |
| Constant | -21.9178 | -17.3296*** | -15.8454* | -47.8589 | -302.2070*** | -10.1831 |
| | (15.5874) | (6.4516) | (9.3444) | (32.9732) | (96.9941) | (27.1000) |
| Observations | 156 | 202 | 129 | 131 | 26 | 57 |
| Number of Countries | 28 | 39 | 23 | 24 | 4 | 13 |
| Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 | | | | | | |

Taken as a whole, the above-mentioned results indicate that government size, tax incentives, ease of trade, c regulations, access to sound money and business regulations are among the most important determinants of structure, security of property rights and inflation, on the other hand, seem to be less important drivers of Indian

To sum up, we find economic freedom as a strong determinant of Outward FDI from Indian MNCs during the 2000s. Indian multinationals prefer investing in countries with business-friendly policies and an economic climate conducive to foreign investment. Open economies with sound capital and labor market regulations, well-functioning financial institutions, high openness to international trade and a lean, efficient government succeed in attracting higher foreign investments from Indian MNCs. Earlier studies such as Quazi (2007), Subasat and Bellos (2011) etc. have already shown the crucial role economic freedom plays in attracting FDI flows to developing countries. Even developing economies with huge domestic markets such as China and India were unable to attract much foreign investments until both of these countries began opening up their markets. In the light of our study, one may conclude that developed economies as well gain foreign investments from emerging markets by maintaining an open, free economic environment.

In this study we analyzed the impact of economic freedom on Indian outward foreign direct investment in 2000-2008. Our results show that economic freedom is one of the main determinants of growing Indian OFDI around the world. The presence of adequate business, financial and labour regulations, and business- and investment-friendly government machinery has played a strong role in attracting Indian investments.

This is true regardless of the host country's geographical location. Our findings corroborate the beneficial role of economic freedom shown in the theory. Less open countries can therefore boost their growth potential by tapping into this new source of FDI from emerging economies like India by improving their domestic economic environment. Devising business-friendly laws, easing trade and capital restrictions, improving labour regulations and eliminating bureaucratic red-tape can be steps in this direction. One line for future research could be to analyze the role of economic freedom in driving emerging economies' foreign investments in times of economic crises. The availability of data for the post-2008 Global Economic crisis will be useful in this regard.

References

- Abramovitz, M., 1986. Catching Up, Forging Ahead, and Falling Behind. *The Journal of Economic History*, 46(2), pp. 385-406.
- Anwar, A. & Mughal, M., forthcoming. The Role of Diaspora in Attracting Indian Outward Foreign Direct Investment. *International Journal of Social Economic*, Volume 40.
- Azman-Saini, W., Baharumshah, Z. & Law, S., 2010. Foreign direct investment, economic freedom and economic growth: International evidence. *Economic Modelling*, 27(5), pp. 1079-1089.
- Bengoa, M. & Sanchez-Robles, B., 2003. Foreign direct investment, economic freedom and growth: new evidence from Latin America. *European Journal of Political Economy*, 19(3), pp. 529-545.
- Berggren, N., 2003. The benefits of economic freedom—A survey. *The Independent Review*, 8(2), p. 193–211.

- Billington, N., 1999. The location of foreign direct investment: an empirical analysis. *Applied Economics*, 31(1), pp. 65-76.
- Caetano, J. & Caleiro, A., 2009. Is There a Relationship Between Transparency in Economic and Political Systems and Foreign Direct Investment Flows?. *The IUP Journal of Applied Economics*, 8(2), pp. 45-58.
- Campa, M., 1993. Entry by foreign firms in the United States under exchange rate uncertainty. *The Review of Economics and Statistics*, 75(4), pp. 614-622.
- Caves, E., 1971. International Corporations: The Industrial Economics of Foreign Investment. *Economica*, 38(149), pp. 1-27.
- Chakrabarti, A., 2001. The Determinants of Foreign Direct investment: Sensitivity Analysis of Cross Country Regressions. *Kyklos*, 54(1), pp. 89-113.
- CIA, T. W. F. b. o. s., 2011. *CIA*, *The World Fact book online statistics*. [Online] Available at: https://www.cia.gov/library/publications/the-world-factbook/index.html [Accessed 20 October 2011].
- Conklin, D., 2002. Analyzing and managing country risks. *Ivey Business Journal*, 66(3), pp. 37-41.
- Corcoran, A. & Gillanders, R., 2012. Foreign Direct Investment and The Ease of Doing Business. *University College Dublin. School of Economics*, 07.
- Culem, G., 1988. The Locational Determinants of Direct Investments among Industrialized Countries. *European Economic Review*, 32(4), pp. 885-904.
- De Beule, F., 2010. Locational determinants of acquisitions from China and India: the role of human capital. Mumbai, India, IASSI and Knowledge Forum Hosted by IIT.
- Duanmu, J. & Guney, Y., 2009. A Panel Data Analysis of Locational Determinants of Chinese and Indian Outward Foreign Direct Investment. *Journal of Asia Business Studies*, 3(2), p. 1–15.
- Dunning, J., 1979. Explaining Changing Patterns of International Production: In Defence of the Eclectic Theory. *Oxford Bulletin of Economics & Statistics*, 41(4), pp. 269-95.
- Dunning, J., 2002. Relational Assets, Networks, and International Business Activities. In: F. Contractor & P. Lorange, eds. *Cooperative Strategies and Alliances*. Amsterdam: Pergamon, p. 569–593.
- Fraser Institute, E. F., 2012. *Fraser Institute economic freedom index*. [Online] Available at: http://www.freetheworld.com [Accessed 10 April 2012].
- Fung, K. & Garcia-Herrero, A., 2012. Foreign Direct Investment Outflows from China and India. *China Economic Policy Review*, 1(1).
- Google Maps, D. C., 2011. *Google Maps Distance Calculator*. [Online] Available at: http://www.daftlogic.com [Accessed 20 August 2011].
- Gopinath, M. & Echeverria, R., 2004. Does Economic Development Impact the Foreign Direct Investment-Trade Relationship? A Gravity Model Approach. *American Journal of Agricultural Economics*, 86(3), pp. 782-787.
- Han, C. & Brewer, T., 1987. Foreign Direct Investment by Korean Firms: An Analysis with FDI Theories. *Asia Pacific Journal of Management*, 4(2), pp. 90-102.
- Heriot, K., Theis, J. & Campbell, N., 2008. Foreign direct investment and economic freedom: an empirical investigation. [Online]
 - Available at: http://www.mfa-2008.com/papers/FDI%20FI%20Midwest%20Final.pdf [Accessed 10 October 2011].

- Indian Ministry of Finance, 2012. *Indian Ministry of Finance*. [Online]
 Available at: http://finmin.nic.in/the_ministry/dept_eco_affairs/icsection/Annexure_5.asp
 [Accessed 12 September 2011].
- Johanson, J. & Vahlne, J., 1977. The Internationalization Process of the Firm-A Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of International Business Studies*, 8(1), pp. 23-32.
- Lall, S., 1982. The emergence of Third World Multinationals: Indian Joint Ventures Overseas. *World Development*, 10(2), pp. 127-146.
- Lau, K. & Lam, P., 2002. Economic Freedom Ranking of 161 Countries in Year 2000: a Minimum Disagreement Approach. *Journal of the Operational Research Society*, 53(6), pp. 664-671.
- Lim, D., 1983. Fiscal Incentives and Direct Foreign Investment in Less Developed Countries. *The Journal of Development Studies*, Volume 19, pp. 207-212.
- Lunn, J., 1980. Determinants of U.S. Direct Investment in the E.E.C. *European Economic Review*, Volume 13, pp. 93-101.
- Pradhan, P., 2010. The global economic crisis: impact on Indian outward investment. *Transnational Corporations*, 19(1), p. 69 84.
- Quazi, R. & Rashid, S., 2004. Economic freedom and foreign direct investment in developing countries. *The International Journal of Business and Public Administration*, 2(1), p. 92–99.
- Quazi, R., 2007. Economic freedom and foreign direct investment in East Asia. *Journal of the Asia Pacific Economy*, 12(3), p. 329–344.
- Root, F. & Ahmad, A., 1979. Empirical Determinants of Manufacturing Direct Foreign Investment in Developing Countries. *Economic Development and Cultural Change*, 27(4), pp. 751-767.
- Rugman, A. & Verbeke, A., 2001. Location, competitiveness, and the multinational enterprise. In: A. &. B. T. Rugman, ed. *Oxford Handbook of International Business*. s.l.:Oxford University Press, USA., pp. 150-180.
- Subasat, T. & Bellos, S., 2011. Economic Freedom and Foreign Direct Investment in Latin America: A Panel Gravity Model Approach. *Economics Bulletin*, 31(3), pp. 2053-2065.
- UN Geographical regional classification, 2012. *UN Geographical regional classification*. [Online] Available at: http://unstats.un.org/unsd/methods/m49/m49regin.htm [Accessed 10 February 2012].
- Vibha, K., 2007. Economic freedom and foreign direct investment in developing countries. *The Journal of Development Areas*, 41(1), pp. 143-154.
- Voyer, P. & Beamish, P., 2004. The Effect of Corruption on Japanese Foreign Direct Investment. *Journal of Business Ethics*, 50(3), pp. 211-224.
- World Bank, 2011. World Development Indicator, New York: United Nations.
- World Investment Report, 1995. *Transnational Corporations and Competitiveness*,, Geneva: UNCTAD.
- World Investment Report, 1998. Trends and Determinants, Geneva,: UNCTAD.
- World Investment Report, 2006. FDI from Developing and Transition Economies: Implications for Development., Geneva: UNCTAD.

Appendix – Table A-1 – List of Countries

OECD Countries List

Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, U.K, USA

Non-OECD Countries List

Bahrain, Bangladesh, Botswana, Brazil, China, Colombia, Cyprus, Egypt, Ethiopia, Gabon, Georgia, Ghana, Hong Kong, Indonesia, Iran, Kazakhstan, Kenya, Kuwait, Kyrgyz republic, Malaysia, Malta, Mauritius, Moldova, Morocco, Mozambique, Myanmar, Nepal, Nigeria, Oman, Panama, Philippines, Romania, Russia, Rwanda, Senegal, Singapore, South Africa, Sri Lanka, Syria, Tanzania, Thailand, Tunisia, UAE, Uruguay, Vietnam

Asian Pacific Countries List

Australia, Bahrain, Bangladesh, China, Georgia, Hong Kong, Indonesia, Iran, Israel, Japan, Kazakhstan, Kuwait, Kyrgyz Republic, Malaysia, Myanmar, Nepal, New Zealand, Oman, Philippines, Singapore, South Korea, Sri Lanka, Syria, Thailand, Turkey, UAE, Vietnam

European Countries List

Austria, Belgium, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Spain, Sweden, Switzerland, U.K

North American Countries List

Canada, Mexico, Panama, USA

African Countries List

Botswana, Egypt, Ethiopia, Gabon, Ghana, Kenya, Mauritius, Morocco, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Tunisia