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FOREIGN DIRECT INVESTMENT DECISIONS INTO CHINA AND INDIA

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ABSTRACT

We investigate the foreign direct investment projects of the multinational companies into the two major BRIC countries: India and China. Our results indicate that wage levels and country population and GDP growth are the major factors that affect company directors' decision to invest into these countries.

Keywords: FDI, China, India.

1. INTRODUCTION

In recent years, foreign direct investments by multinational companies had reached very high levels. Between 2003 and 2008, 4.49 trillion U.S dollars has been invested into foreign direct investment projects globally and 13,490,875 new jobs have been created. During this same time period, 58,204 total projects have been recorded. In 2010, foreign direct investment projects to developing countries reached upwards of 573,568 million U.S. dollars, out of the 1,243,671 million U.S. dollars invested worldwide. China alone received approximately 18% of these investments, a total amounting to 105,735 million U.S. dollars.

While investing in new projects by foreigners is viewed favourably by local governments, public acquisitions of local companies by foreign companies are generally evaluated as bad news. Developing economies receive approximately 50% of worldwide foreign direct investments. These projects help local economies and create jobs. On the other hand, some critics claim that foreign direct investments hurt local, smaller firms.

It is very timely to inspect the foreign direct investments (FDI) decisions into two big emerging countries and which factors affect the multinational company decisions into investing internationally. In this paper, we examine the foreign direct investment projects made into the two biggest developing economies, China and India. This paper investigates what factors affect multinational companies to invest into China and India via foreign direct investment projects. The paper is organized as follows: Section II introduces the literature review and its past results whereas

section III investigates the characteristics of the foreign direct investments. While section IV explains the factors that affect foreign direct investments into India and China, section V attempts to measure the determinants of the size of these investments.

2. PREVIOUS STUDIES

Various researchers examine the motivations of foreign direct investments, the locational choices of the foreign direct investment, the characteristics of regional foreign direct investment projects, and the effect of technology spillovers of inward foreign direct investment. Motivations of foreign direct investment are found as an efficient mode of market access, high technological environment access, and access to cheap labour and resources (Brouthers *et al.* (1996), Chan *et al.* (2006), Cheng (2006), Chung (2001)).

Contractor (1984), Arpan *et al.* (1986), Grosse and Trevino (1996), Dewenter (1995),Erel *et al.* (2012) investigate the foreign direct investment projects made into U.S, whereas Globerman and Shapiro (1999), Hejazi and Pauly (2003) examine the Canadian foreign direct investments to conclude that market access, price differences, intra-firm trade and government policy decisions are the major determinants of the foreign direct investment. Banerji and Sambharya (1996) investigate the behaviours of Japanese car makers and show that keiretsu affiliation, previous experience and higher dependence of core firms on affiliate firms, contributed to foreign direct investment decision.

Emerging countries have not been investigated extensively. One of the representative papers by Filatotchev *et al.* (2007) study the emerging country companies' foreign direct investment strategies and decide that characteristics of those projects are different from those of the developed country companies. Mottaleb and Kaliappa (2010) study foreign direct investment projects into the developing countries by using data of sixty eight countries. Their results confirmed that countries with larger GDPs, higher GDP growth rates, higher international trade and more business-friendly environment attract larger FDI flows. More recently, a paper by Broto *et al.* (2011) argue the importance of global drivers as a significant determinant to FDI inflows into emerging markets.

In this paper we will examine the individual company foreign direct investment decisions to the two big emerging countries, China and India. Buckley *et al.* (2007), examines both the inward and outward foreign direct investment of China to conclude that it is very important to reform the state-owned enterprises to obtain full benefits of inward foreign direct investments. Ng *et al.* (2009), also examine the performance of Chinese state owned enterprises and mention various factors that affect the performance of these companies.

Sun *et al.* (2002) conclude that FDI determining factors in China has changed through time. Their paper showed that labour costs had positive relationship with FDI before 1991, but negative relationship after this date. Similarly provincial GDP became an important positive factor after 1991. Labour quality, infrastructure, political stability and openness stayed as important factors.

Ramasamy *et al.* (2012) find that state owned companies choose natural resource rich countries and risky political environments in their foreign direct investment decisions. Private companies

choose large markets to invest in. Banik *et al.* (2004) also find that country specific and idiosyncratic variables were strong determinants for inwards FDI towards China, India, and the Caribbean. The study conducted by Zheng (2009)confirms these past results in Wei (2005) and Banik *et al.* (2004).

Chakraborty and Nunnenkamp (2008) conduct a sectoral analysis of FDI and its impact on economic growth in India. Their paper suggests that the FDI in the service sector has helped the growth in the manufacturing sector of India through the spillover effect. However, they find that the effect of FDI on output is temporary in the service industry. To account for any simultaneity biases that may arise when dealing with FDI and growth, Chakraborty and Nunnenkamp (2008) implement a panel cointegration framework that allows for heterogeneity across industries in primary, secondary, and tertiary sectors. In India, they find that there may be no evidence at all between a causal relationship between FDI and growth. Rather, it may only be that the manufacturing sector has benefited from FDI.

There have also been other papers that compared and contrasted the foreign direct investment projects into China and India. Wei (2005) studies the large discrepancy in FDI inflows going to both China and India. While both countries considered emerging economies, the paper suggests that the high inflow of FDI going towards China is primarily due to its large domestic market and higher international trade ties with OECD economies, whereas India is preferred from OECD countries due to its relatively cheap labor cost, low country risk, and cultural similarities. The paper implements an Oaxaca-Blinder decomposition model to measure the gap of inward FDI between both countries, while imposing a random effects model to capture determinants of inward FDI for both India and China. To avoid any discrepancy of what constitutes an FDI by China and India, outward FDI data from OECD countries were used in the analysis rather than data reported domestically by India and China. This avoids the issue known as 'round tripping', described as firms under(over)-invoicing exports(imports), distorting the market and inflating returns. While this paper provides rigorous results, the analysis is still at the country level.

Zheng (2009) compares determinants of foreign direct investment projects in India and China and concludes that economic growth, exports, labour costs, political risk are important factors in both countries. However, while imports and market size and borrowing costs are significant factors in China, geographical and cultural distance are important in India. Lombard and Lombard (2011) reports that foreign direct investment has had a significant positive effect on the Chinese economy, however only moderate effect on the Indian economy.

This paper concentrates on the individual multinational company decisions of foreign direct investment into China and India. We examine the determinant factors of these decisions and the size of the investment.

3. CHARACTERISTICS OF CHINESE AND INDIAN INWARD FOREIGN DIRECT INVESTMENT PROJECTS

We obtained the data for all foreign direct investment transactions from a comprehensive database called OCO Monitor, FDI Markets. The database provides details of foreign direct investments of various global multinational firms. We retrieved the amount, location, industry and methods of company foreign direct investments, along with the amount of jobs created from this database. The financial statistics and balance sheet, income statement and cash flow statement of companies were obtained from the Datastream database.

The data in Table I show that between 2003 and 2008, the number of foreign direct investments and the number of companies making foreign direct investments reached its highest at 11,684 projects from 6171 firms in 2007. The biggest increase in the number of FDI projects is witnessed between years 2005 and 2006, with 1248 more projects in year 2006. During this time period, 19,961 companies made investments in foreign countries, for a total of 58,204 projects.

Table II provides the summary statistics of all the projects between 2003 and 2008. The mean investment amount for the projects is $148,416,920 and estimated investment for the remaining life of the projects is $46,237,345. Maximum number of jobs created is 40,000 while the average amount of jobs created from these foreign direct investments are 266.

Yuce and Zelaya (2013) provide extensive details of the projects made in 39 industries. The U.S. companies have invested the largest amount, with approximately $31 billion in foreign investments and created the largest number of jobs, with 71,000 during the whole period. The UK followed with $27 billion dollars of FDI capital expenditure and 6,500 jobs. Japanese, Dutch, German, and French companies are the top job creators through their foreign direct investments. The largest amount ofinvestments has been made towards China with $20 billion in foreign capital, followed by India with $19 billion, for a total of 609 and 384 inbound investment projects, respectively. These projects are estimated to create 190,021 jobs in China and 126,650 jobs in India. Other major FDI receivers are Australia, Kazakhstan, Libya, Malaysia, Nigeria, Romania, Russia, Tunisia and Vietnam. Out of the 102 countries, 6 countries received no foreign investments.

This paper examines the foreign direct investments made to the two largest recipients among developing countries, China and India. Tables III, IV and V show the characteristics of these projects. Table III indicates that in every year between 2003 and 2008 approximately there were twice as many inbound projects to China compared to those into India. In 2003, 216 companies invested in 330 projects in China. Both the number of projects and the average amount of investment has declined in the following years. However, in India the number of projects increased steadily until 2006 with 179 projects, where the amount of project and the number of companies investing into India gradually decreased thereafter. In India, the largest average size of investment occurred in 2008. According to Table IV, several global multinational companies invested into both China and India, where the majority of projects originated from the United States. Table V categorizes the inward foreign investment projects into either India or China by industry. For

instance, there were 129 FDI projects into China from the chemicals industry whereas there are 122 projects both in financial services and in software and IT services industry. In our sample size, we see that the majority of the foreign projects into India are from the software and IT services industry.

4. FOREIGN DIRECT INVESTMENT DECISION INTO CHINA AND INDIA

This section will investigate the core macro and micro determinants to invest in either China or India. There are two subsets of our model. First, the dependent variable is a binary variable, where it takes a value of 1 if the firm pursued an FDI in India, and zero elsewhere (but not into China). In our second model, the binary variable takes a value of 1 if the firm pursued an FDI into China, and zero elsewhere. As in the first subset of model, we excluded observations of outward FDI towards India and only focused on China FDI and other countries (excluding India). Finally, our third model measures the aggregate of firms where our binary variable takes a value of 1 if the MNE is investing into either India or China, and zero otherwise. Thus, the fully specified model now takes the following form:

$$\begin{aligned}\mathrm{FDI_i} = \beta_0 + \beta_1 GDP\ growth_i + \ \beta_2 firm\ specific\ factors_i \\ + \beta_3 firm\ industry\ controls_i + \beta_4 country\ risk \\ + \ \ \beta_5 Macro\ controls_i \ + \varepsilon_i\end{aligned}$$

The GDP growth determines the current state of the economy, where during times of economic boom it attracts foreign investors. Relative market size and growth (denoted by log of GDP) are considered strong determinants of foreign direct investments. As high levels of GDP reflect higher levels of consumption, This leads to our first hypothesis.

Hypothesis 1: High GDP Growth and large population of India and China attract multinational companies and positively affect these multinationals to invest in a FDI into India and China

The firm specific factor variables measure the firms profitability, measured by its return on assets (ROA), the size of the firm, measured in total assets, and the leverage position of the firm, measured in total debt. The effects of various company specific variables on outward FDI have yet to our knowledge been properly addressed. We add in these covariates to investigate whether the capital structure of a multinational company (MNE) has an effect on its likelihood of pursuing an FDI, or how firm specific characteristics affect outward FDI towards emerging countries. It is in this instance that we lead to our second hypotheses.

Hypothesis 2: Larger, more profitable firms are more likely to pursue an FDI towards India and China. These foreign investments may be at the expense of a more leveraged position within the firm.

The firm industry controls refer to industry dummies to account for industry characteristics of the firm. These industry control variables are important to include as firms within each industry may be attracted to country specific characteristics. For instance, MNE's within the Metals and mining industry would be clearly attracted to countries with an abundant of natural resources, whereas financial services based MNE's are attracted to accessing a large market.

The country risk factor is a measure of relative risk measured by the ratio of the risk between the host FDI country and the home country of the company. A composite measure of country risk consists of political, financial, and economic risk. The political risk measure encompasses twelve components of the political landscape of a country that would be deemed politically stable. The main components are measures of socioeconomic conditions, corruption, law and order, ethnic tension, internal/external conflicts, and democratic accountability.

Similarly, the economic risk measure is comprised of several different factors that evaluate the degree of economic strength and weaknesses in a particular country. Specifically, our economic risk incorporates measures of economic growth, current account balances, and inflation rate risk.

Finally, the financial risk measure is comprised of stylized features of the country's ability to pay its debt obligations. Thus, it incorporates the size of foreign debt (as a percent of GDP and exports), liquidity risk, and exchange rate stability. Therefore, the composite country risk rating is a weighted average of the scores of each risk measure. Specifically, the political risk measure contributes to 50% of the aggregate country risk rating, while the economic and financial risk contributes to 25% of the score. The results are an aggregate score ranging from 1-100, where a larger score indicates more aggregate country risk. Therefore, our relative country risk measure is a ratio of the country risk score of the host to the home country. A larger ratio between the two countries indicates investments flowing from a safe to a risky economy. This variable captures the flows of outward FDI from the headquarters of the MNE towards potentially safer countries. This leads to our third hypothesis.

Hypothesis 3: Multinational companies are more likely to invest into emerging countries such as India and China that have a relatively safe landscape to conduct business.

Finally, the macro controls matrix refers to a subset of macroeconomic variables that are known to affect inflow of FDI. In this case, they are the population of the host economy, the inflation rate, a language similarity dummy variable, and the local wage rate of the host economy. Generally speaking, firms located in developed economies would be more open to relocating labor intensive processes towards India and China. The relative quality of the labor force to its wage rate is attractive for firms looking to relocate a part of their production process that is labor intensive. This leads to our fourth hypothesis.

Hypothesis 4: Low wages from the Indian and Chinese labor market attract foreign capital.

As the dependent variable is binary, a probit model is appropriate rather than a linear probability (ordinary least squares) model. This is true as the predicted probability of a linear probability model may predict outside the [0,1] range, which would be illogical to interpret, while also suffering from heteroskedasticity. Thus, applying a probit model would be sufficient. The probit model is estimated via maximum likelihood. The likelihood is set up as:

$$L(\beta) = \prod_{i=1}^{n} prob\left(FDI = 1 \middle| x_i'\beta\right)^{FDI} prob\left(FDI = 0 \middle| x_i'\beta\right)^{(1-FDI)}$$

Or more formally, the Log-likelihood:

$$L(\beta) = \sum_{i=1}^{n} FDI \log F\left(x_i^{'}\beta\right) + \ (1 - FDI)\log(1 - F\left(x_i^{'}\beta\right))$$

The results are presented in Table VI. Each column represents a different specification model. For simplicity, only the main macroeconomic determinants are reported.

We can first start with the third column, where multinationals are investing into either India or China. In regards to the macroeconomic variables, all three models indicate that firms are more likely to invest into India and China during high periods of GDP growth. We see that both population and GDP growth are statistically significant at 1% level, verifying our first hypothesis that population growth and the GDP growth rate of India and China affect foreign direct investment decisions directly and significantly. Relative market size and growth (denoted by log of GDP) are considered strong determinants of foreign direct investments, as high levels of GDP reflect higher levels of consumption. To further measure market size, we also look at the effect the population has on the decision for multinationals to invest into India, China, or both. Similarly, we see that the relatively large size of the market (measured by the log of the population of the host economy) has a positive effect on the decision to invest internationally. By having access to such a large market through FDI, there are more opportunities for multinationals to expand and service these markets. These results are all statistically significant at the 1% level.

We observe that smaller firms (measured by asset size) with higher ROA and profitability are more likely to invest into India or China when we investigate the role of company statistics on investment decision into India and China. These results are significant at the 1% and 5%, respectively. This indicates that relatively smaller firms are more mobile and are able to react quickly to new foreign opportunities into emerging countries. These results are further robust for the other specification models presented in columns 1 and 2 in table VI. Specifically, the first column summarizes our results for multinationals investing into India versus other countries, while the second column summarizes the results for multinationals investing into China versus other countries. Within the same context, we see a similar story. In both cases, the first two columns show that while smaller, more profitable firms are more likely to invest into India and China. Our results also indicate that the capital structure of the company may play a different role in determining the likelihood of the foreign investment. Specifically, while the estimated coefficient is positive in both tables, it is only statistically significant for firms investing into China. This is also seen in the third column where multinationals are choosing India or China versus other countries to invest in. This may indicate that at the aggregate level, both these large economies share characteristics that firms deem attractive when investing internationally. We therefore see that while our second hypothesis is correct in that leveraged firms are more likely to invest in outward FDI towards China and China and India jointly, it is in fact smaller, more mobile firms that are investing into these emerging countries.

The country risk ratio coefficient between host and home economy states that relatively higher level of aggregate country risk reduces inflow of foreign capital towards India or China. Specifically, if India or China has a larger aggregate score of country risk relative to the country of origin of the multinational, the multinational is less likely to invest into India or China. It may be that political risk, currency risk, or economic risk may be driving these results. These results are statistically significant at the 1% level. These results are robust throughout all three columns. Thus, our third hypothesis is correct.

While inflation is positively correlated to economic growth, host economies with high inflation will increase outward FDI as inflation will depreciate their local currency, which increases the amount of foreign capital and purchasing power for outward FDI. While we expect inflation to have a positive impact on the decision to participate in a foreign direct investment, inflation of the target economy does not play a large role in the determinant of investing into India or China separately or jointly.

More importantly, after we partial out the industry effects, there is still an inverse effect between inflow of FDI and the size of local wages. These results are robust to all three models. We see that multinationals are deterred to invest into either India or China if there is upward pressure in local wages. These results are statistically significant between 1% and 5% in all three models. Thus, our results reaffirm hypothesis 4.

While this section captures the decision to invest into either China or India, the following section will answer as to how these macroeconomic and firm specific variables affect the size of the FDI investment.

5. SIZE OF FOREIGN DIRECT INVESTMENTS

We now shift focus on the effects of various macroeconomic (of the firms home country) factors and firm specific factors on the size (measured in dollars) of foreign direct investment projects. These firm specific factors refer to the profitability, leverage, and size of the firm. The model is similar to the probit case, where the macroeconomic variables are now of the home country, and not the target country. In this model, we now introduce city specific dummy variables for cities located within China and India, respectively. As there are large heterogeneity within China and India (in terms of market size, labor regulations, and natural resources), controlling for city specific FDI will further allow to robustly measure the effects of specific financial performance indicators of these MNE's on investing into China and India. Mukim and Nunnenkamp (2012) study the effects of location of FDI within India. They find that foreign investors are attracted to districts within India where there are strong infrastructure and previous foreign investors within the same area. Therefore, there are micro determinants affecting the decision for multinationals to invest into certain locations within India. This is also seen in Biggeri (2012), where the transition towards marketization reflects the decision as to which province foreign investors locate their FDI within China. For instance, in our sample of MNEs investing into China, there were 167 projects towards Shanghai, 54 projects in Beijing, 29 in Suzhou, and 23 into

Guangzhou. In our sample of MNEs investing into India, there are 44 projects going into Bangalore, 19 into Mumbai, 18 into Hyderabad, and 16 into Chennai. Applying a set of dummy variables for these cities will allow us to measure the average effect of financial performance when investing into either China or India. As this is a cross sectional dataset with 5 year averages (two years prior to the FDI, the year of the FDI, and two years after the FDI), we now estimate a Fixed-effect regression model of the following form:

$$\begin{aligned}\log(\text{investment}) &= \beta_0 + \beta_1 GDP_i + \beta_2 Inflation_i + \beta_3 Wages_i + \beta_4 Distance_i \\ &+ \beta_5 firm\ specific\ factors_i + \beta_6 firm\ industry\ controls_i \\ &+ \beta_7 city\ specific\ controls_i + \beta_8 country\ risk\ controls_i \\ &+ \beta_9 Language\ controls_i + \varepsilon_i\end{aligned}$$

The results of our model are presented in Table VII. The first column represents the results when investing into China, the second column represents the results when investing into India, whereas the third column represents the firms investing into either India or China.

Our first results in the third column of table VII indicate that firms with higher levels of profitability investing into either China or India are willing to increase the overall size of the FDI at about 16%. This result is robust 5% level. It seems that more profitable firms tend to allocate their profits towards foreign investments. However, we see the characteristics that affect the size of the FDI drastically differ when an MNE invests into India, as oppose to China. Unlike China, firms with lower profitability levels investing into India are associated with higher levels of FDI, but these results are not statistically significant. This can be seen in column 2.

Furthermore, we also see that a 10% increase in the size of the firm (measured through total assets) is associated with about a 2.1% increase in the size of the FDI into China and India. While our previous results indicate that smaller firms are *more likely* to invest internationally, we now see that conditional on firms already committed to a FDI, it is in fact larger firms that are providing more capital to these foreign investments. However, independently we see that these results are driven by firms investing solely into China, whereas the results are not statistically significant for firms investing only into India, as seen by the results in column 2 in table VII.

Also, while less leveraged firms are investing into India or China, these results are not statistically significant for firms investing only into India. These results may indicate that foreign direct investments are usually only made by larger, more profitable firms. These results may be driven by several factors. First, larger firms may have prior experience with foreign investment, which provides an easier transition for these multinationals to relocate into China. Finding that larger more profitable firms provide more FDI funding may also be driven by the FDI OLI paradigm of *internalization*. These firms focusing on internalizing their production are ensuring either their intellectual or human capital is not lost during the FDI process. More importantly, as seen in our previous model, the *localization* of their FDI plays a large role when entering these emerging countries. It may be the case that larger more profitable multinationals are able to better

service such large emerging countries, where during unfavourable time periods profitable firms may be able to keep their investment afloat.

After controlling for language similarities, unobservable country fixed effects, industry effects, and city specific effects, the macro variables from the home country of FDI have some important implications of FDI towards China. We see that with low levels of country GDP, firms are more likely to invest in outward FDI. This has important implications as to the motivation for outward FDI. Our results indicate that MNE's are more likely to invest internationally when their local country per capita income is low (as seen with the lower levels of GDP), which in turn is reflected in the lower levels of inflation. With low inflation, this puts downward pressure on the current local wages, which may not provide enough disincentives for the MNE to invest internationally. For instance, a manufacturing firm would benefit from low wages, but the per capita income of their home country is now lower, which has a direct effect on the profitability of the multinational. These results indicate that more FDI funding is created during economic down turns in their home countries. Intuitively, while these large firms are increasingly profitable, they are more inclined to seek profitable ventures during moderately low levels of national income.

6. CONCLUSION

We have investigated the foreign direct investment decisions of the multinational companies into China and India between 2003 and 2008. Our results indicate that large market size; high GDP growth and low wages are the major determinants of their foreign direct investment decision.

Profitable companies chose to invest into India and China with more profitable firms tend to allocate their profits towards foreign investments. However, we see the characteristics that affect the size of the FDI drastically differ when an MNE invests into India, as oppose to China. Furthermore, we also see that a 10% increase in the size of the firm (measured through total assets) is associated with about a 2.1% increase in the size of the FDI into China and India. However, independently we see that firms investing solely into China drive these results, whereas the results are not statistically significant for firms investing only into India.

Also, while less leveraged firms are investing into India or China, these results are not statistically significant for firms investing only into India. These results may indicate that foreign direct investments are usually only made by larger, more profitable firms. These results may be driven by several factors. First, larger firms may have prior experience with foreign investment, which provides an easier transition for these multinationals to relocate into China. It may be the case that larger more profitable multinationals are able to better service such large emerging countries, where during unfavourable time periods profitable firms may be able to keep their investment afloat.

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Table- 1. Foreign Direct Investment Projects between 2003-2008

	Number of FDI Projects	Number of Companies
2003	9400	4789
2004	10164	5052
2005	10354	5280
2006	11602	5563
2007	11684	6171
2008	5000	3025
Total	58204	19961

Table- 2. Summary statistics

	Investment	Estimated Investment	Jobs	Estimated Jobs
Mean	148,416,920	46,237,345	266	223
Standard Deviation	646,305,237	165,205,637	830	467
Kurtosis	311	11,327	654	20
Skewness	15	81	19	4
Maximum	20,000,000,000	24,194,600,000	40,000	3,000
Sum	2,623,714,319,680	1,873,814,630,000	3,201,434	10,289,441
Count	17,678	40,526	12,020	46,184

Table-3. Foreign Direct Investment Projects during 2003-2008 into China and India

	India			China		
Year	# FDI projects	Average Size	# of Companies	# FDI projects	Average Size	# of Companies
2003	97	52,600,000	68	330	100,000,000	216
2004	126	86,400,000	81	337	88,700,000	196
2005	144	56,200,000	86	295	65,600,000	174
2006	179	84,000,000	108	311	56,200,000	198
2007	164	74,800,000	105	274	80,300,000	184
2008	85	125,000,000	68	161	79,500,000	129

Table-4. Chinese and Indian Inward FDI Projects between 2003 and 2008

	FDI Projects	
Source Country	China	India
Australia	13	10
Austria	5	2
Belgium	7	4
Brazil	3	
Canada	27	9
China		7
Denmark	13	18
Finland	17	5
France	115	42
Germany	127	72

Greece	1	
Hong Kong	90	9
Iceland	1	
India	28	
Indonesia	2	
Ireland	3	1
Israel	6	4
Italy	19	18
Japan	305	68
Malaysia	30	9
Netherlands	36	19
New Zealand	1	1
Norway	4	1
Philippines	1	
Poland	1	
Portugal	2	
Qatar	2	1
Russia	3	
Singapore	28	6
South Korea	112	52
Spain	11	
Sweden	10	12
Switzerland	24	7
Taiwan	63	8
Thailand	12	2
Turkey		1
UAE	5	17
UK	88	59
USA	493	341

Table-5.2003-2008 Projects by Industry

	FDI	
Sector	**China**	**India**
Aerospace	19	8
Alternative/Renewable energy	6	12
Automotive Components	97	17
Automotive OEM	75	42
Beverages	25	10
Biotechnology	10	5
Building & Construction Materials	22	15
Business Machines & Equipment	42	13
Business Services	40	43

Ceramics & Glass	8	8
Chemicals	129	18
Coal, Oil and Natural Gas	66	32
Communications	23	25
Consumer Electronics	60	47
Consumer Products	67	17
Electronic Components	88	29
Engines & Turbines	36	19
Financial Services	122	38
Food & Tobacco	67	7
Healthcare	8	5
Hotels & Tourism	14	2
Industrial Machinery, Equipment & Tools	83	24
Leisure & Entertainment	18	20
Manufacturing	1	
Medical Devices	2	2
Metals	68	26
Minerals	4	1
Non-Automotive Transport OEM	1	
Paper, Printing & Packaging	23	5
Pharmaceuticals	28	14
Plastics	53	13
Real Estate	22	20
Rubber	26	2
Semiconductors	82	27
Software & IT services	122	156
Space &Defence	3	
Textiles	37	10
Transportation	54	20
Warehousing & Storage	45	41
Wood Products	12	2

Table-6.

$$\mathrm{FDI_i} = \beta_0 + \beta_1 GDP\ growth_i + \beta firm\ specific\ factors_i + \beta firm\ industry\ controls_i + \beta country\ risk\ controls_i + \varepsilon_i$$

	India	China	India and China
ROA	0.88**	.46**	.57**
	(0.44)	(0.24)	(0.16)
Log(Debt)	0.09	0.35***	0.2**
	(0.08)	(0.13)	(0.08)
Log(Asset)	-.29***	-.47***	-.33***
	(0.10)	(0.15)	(0.3)

Country risk	-3.8***	-16.22**	-4.01**
	(1.13)	(1.66)	(1.4)
GDP growth	0.25***	0.55***	0.33***
	(0.05)	(0.07)	(0.09)
Inflation	-0.07	0.06	-.15**
	(0.03)	(0.06)	(0.07)
Log(Population)	.27***	.92***	.56***
	(.074)	(.16)	(.12)
Hourly Wage	-.047**	-0.06***	-0.051***
	(0.02)	(0.028)	(0.02)
Distance	.00004**	-.0001***	.0001*
	(.00002)	(.00005)	(.00003)
Industry Controls	Yes	Yes	Yes
# of observations	446	531	571

Note: Robust standard errors are reported in parenthesis. * p < .10, ** p<.05, *** p< .01 The results in column 1 are based on characteristics of 40 firms investing into India versus 406 investing into other countries. Similarly, the results from column two are derived from 125 firms investing into China versus the same 406 firms that invested elsewhere. Thus, the final specification model shown in column 3 is based on the 165 firms that invested in either China or India versus the same sample size of 406 firms that invested elsewhere.

Table-7.

(1) $$\log(\text{investment}) = \beta_0 + \beta GDP_i + \beta Inflation_i + \beta Wages_i + \beta Distance_i + \beta firm\ specific\ factors_i + \beta firm\ industry\ controls_i + \beta city\ specific\ controls_i + \beta country\ risk\ controls_i + \beta Language\ controls_i + \varepsilon_i$$

	China	**India**	**Both**
ROA	0.18**	-0.74	.16**
	(0.08)	(0.61)	(.07)
Log(Debt)	-0.06	-0.06	-.06
	(0.06)	(0.11)	(.04)
Log(Asset)	0.23***	0.18	.21***
	(0.07)	(0.14)	(.06)
Log(GDP)	-0.64***	0.53	-.52**
	(0.06)	(0.49)	(.25)
Inflation	-0.61***	.74*	-.45**
	(0.03)	(0.40)	(.22)
Hourly Wage	-0.20***	-0.03	-.19***
	(0.04)	(0.02)	(.04)
Distance	.00004***	-.00005***	-.00008

	(.00001)	(.0002)	(.0001)
Industry Control	Yes	Yes	Yes
City Control	Yes	Yes	Yes
Country Control	Yes	Yes	Yes
Language Control	Yes	Yes	Yes
R^2	0.602	0.695	.5643
# of observations	443	151	594