Does Corporate Governance or Transparency Affect Foreign Direct Investment?

Haksoon Kim

Abstract—The paper investigates the relationship between the foreign direct investment (FDI) and the corporate governance or transparency by investigating the country-level FDI flows, FDI inward performance, corporate governance and transparency variables. From the regression analysis with Newey-West estimator of 28 country panel data from 1990-2002, we find strong positive relationships between corporate governance or transparency level of hosting countries and FDI inward performance within hosting countries. A strong positive relationship is found between anti-director rights level or number of analysts of hosting countries and FDI inward performance within hosting countries. Also, we find a positive relationship between the number of analysts of hosting countries and FDI inflows. The empirical results are consistent with stock market liberalizations and corporate governance explanations of reasons for FDI.

Keywords—corporate governance, corporate transparency, FDI flows, FDI inward performance

I. INTRODUCTION

THE deteriorization of trade barriers and globalization of capital markets produce several ways to financial internationalization. For example, there are cross-border mergers and acquisitions, joint ventures and foreign direct investment. In this paper, we focus on the foreign direct investment (FDI) and investigate the reasons of foreign direct investment in the context of corporate governance and transparency.

There are numerous literatures on the institutional determinants of FDI. Wheeler and Mody (1992) [26] did not find any significant impacts of 'high quality' institutions on the location of US foreign affiliates. They use 13 risk factors and some of them are not directly related to the institution's quality. Other literature use institutional determinants like corruption (Wei, 1997 [24], 2000 [25]), institutional quality (Stein and Daude, 2001 [23]) and governance indicators (Kaufman et al., 1999 [17]; La Porta et al., 1998 [18]). They find that the determinants have a significant effect on inward FDI. Also, Globerman and Shapiro (2002) [13] argue that good governance has a positive effect on both FDI inflows and outflows, although the latter effect is only significant for relatively large and developed countries. Country GDP,

Haksoon Kim is with the department of Accounting, Finance and Law, Sorrell College of Business, Troy University-Montgomery, 207 Montgomery Street, Room 413, Montgomery, AL 36104, USA (corresponding author to provide phone: 334-832-7285; fax: 334-241-9734; e-mail: hkim11@troy.edu).

population and geographic distance between countries affect FDI bilateral flows or stocks (Eaton and Tamura, 1994 [11]). Finally, institutional distance matters in affecting bilateral FDI both positively (Levchenko, 2004 [22]) and negatively (Aizenman and Spiegel, 2002 [2]). Finally, Habib and Zurawicki (2002) [14] find that the absolute difference of the corruption index between two countries is negatively correlated with bilateral FDI.

Some of the institutional determinants focus on stock market liberalization or corporate governance. The reasons of FDI related to stock market liberalization and corporate governance are as follows. Demirguc-Kunt and Levine (1996) [8] show that corporate governance encourages investment and stock market development, which is associated with improved macroeconomic growth. Henry (2000b) [16] argues that stock market liberalizations lead private investment booms. Henry (2000a) [15] and Bekaert and Harvey (2000b) [4] argue that the cost of capital declines significantly after market liberalizations and after cross listings of individual foreign securities on U.S. exchanges. Admati and Pfleiderer (2000) [1] argue that a company can benefit by listing overseas and "voluntarily" adopting the foreign standards of reporting, regulation, and law, which is related to good corporate governance. There are other literatures that show the relationship between stock market liberalization and corporate governance. For example, Kim, Esmeralda and Zychowicz (2005) [18] show that stock market liberalization may mitigate deficiencies in the existing institutional environments not supportive of effective corporate governance systems.

We expect a positive relationship between FDI flows or FDI inward performance and corporate governance or transparency level because the hosting countries will welcome the investments of foreign companies from countries with high corporate governance and transparency level in support of related literature (*Hypothesis 1*).

For example, Henry (2000a [15], 2000b [16]) argues that the stock market liberalization, which is highly correlated with the corporate governance or transparency, leads the private investment boom, which is highly correlated with FDI. Also, Admati and Pfleiderer (2000) [1] argue that a company can benefit by listing overseas and "voluntarily" adopting foreign standards of reporting, regulation, and law. Since the FDI inward performance represents the benefit, we can expect a positive relationship between the FDI inward performance within hosting countries and corporate governance or transparency level of hosting countries.

We further look into whether corporate governance or transparency level of hosting countries drives more FDI inflows than FDI outflows or vice versa. It is an empirical

issue that has not been investigated to the best of our knowledge about the related literature (*Hypothesis* 2).

By focusing on the arguments of the stock market liberalizations and corporate governance as FDI reasons, we investigate the relationship between FDI, corporate governance and corporate transparency. First, we find a positive relationship between the number of analyst, one of corporate transparency variables as in Bushman, Piotroski and Smith (2004) [7], and FDI inflows. We find strong positive relationships between corporate governance or transparency level of hosting countries and FDI inward performance within hosting countries. Within corporate governance level, we find a strong positive relationship between anti-director rights level of hosting countries and FDI inward performance within hosting countries. Also, within corporate transparency level, we find a strong positive relationship between the number of analysts of hosting countries and FDI inward performance within hosting countries. The overall results are consistent with the stock market liberalization and corporate governance argument of FDI reasons.

The remaining paper proceeds as follows. Section 2 describes the econometric techniques and the model setup that are used in this paper. Section 3 explains data and variable construction. Section 4 shows empirical results. Section 5 concludes the paper.

II. THE REVIEW OF ECONOMETRIC TECHNIQUES AND MODEL SETUP

We run the following regression models, using Newey-West robust standard errors, to correct for autocorrelation and heteroskedasticity within the time-series data.

FDI conflows, i.i.
$$(X10^{-3}) = \beta_1 * \log(measure)_{i,i} + \beta_2 * \log(nanalyst)_{i,i}$$
 (1)
 $+\beta_3 * \log(accounting s tan dard)_{i,i} + \beta_4 * antidirect or_{i,i}$
 $+\beta_5 * \log(GDP)_{i,i} + \beta_6 * \log(ExRate)_{i,i} + \beta_7 * \log(CorpTax)_{i,i}$
 $+\beta_8 * CAC_{i,i} + yeardummie s + e_{i,i}$ (2)
FDI conflows, i.i. $(X10^{-3}) = \beta_1 * \log(measure)_{i,i} + \beta_2 * \log(nanalyst)_{i,i}$ (2)
 $+\beta_3 * \log(accounting s tan dard)_{i,i} + \beta_4 * antidirect or_{i,i}$
 $+\beta_5 * \log(GDP)_{i,i} + \beta_6 * \log(ExRate)_{i,i} + \beta_7 * \log(CorpTax)_{i,i}$
 $+\beta_8 * CAC_{i,i} + yeardummie s + e_{i,i}$ (3)
 $+\beta_3 * \log(accounting s tan dard)_{i,i} + \beta_4 * antidirector_{i,i}$
 $+\beta_5 * \log(GDP)_{i,i} + \beta_6 * \log(ExRate)_{i,i} + \beta_4 * antidirector_{i,i}$
 $+\beta_5 * \log(GDP)_{i,i} + \beta_6 * \log(ExRate)_{i,i} + \beta_7 * \log(CorpTax)_{i,i}$
 $+\beta_5 * \log(GDP)_{i,i} + \beta_6 * \log(ExRate)_{i,i} + \beta_7 * \log(CorpTax)_{i,i}$
 $+\beta_8 * CAC_{i,i} + yeardummies + e_{i,i}$

, where i=1, ..., 28, t=1990, ..., 2002 and $e_{i,t}$ is the error term. FDI_{outflows,i,t}($X10^{-3}$), FDI_{inflows,i,t}($X10^{-3}$) and FDI_{performane,i,t} is the foreign direct investment outflows divided by 1000, the foreign direct investment inflows divided by 1000 and the foreign direct investment inward performance (three year average) for the country i in the year t, respectively. log (measure)_{i,t}, log (measure)_{i,t}, log (measure)_{i,t}, log (measure) in the natural log of measure index, the natural log of nanalyst index as in Bushman, Piotroski and Smith (2004) [7], the natural log of accounting standard index and antidirector right index as in

La Porta et al. (1998) [20] for the country i in the year t, respectively. $\log (GDP)_{i,t}$, $\log (ExRate)_{i,t}$, $\log (CorpTax)_{i,t}$ and CAC $_{i,t}$ is the natural log of three year average GDP, the natural log of real exchange rate, the natural log of the marginal corporate tax rates and the capital account closedness measure as in Brune et al. (2001) [6] for the country i in the year t, respectively.

III. DATA AND VARIABLE DESCRIPTION

We obtain data from different sources. FDI data is from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD). World Investment Report Annex Tables provide detailed statistical data on FDI flows, FDI stock and cross-border mergers and acquisitions. Data on FDI flows are on a net basis (capital transactions' credits less debits between direct investors and their foreign affiliates). Net decreases in assets (FDI outward) or net increases in liabilities (FDI inward) are recorded as credits (recorded with a positive sign in the balance of payments), while net increases in assets or net decreases in liabilities are recorded as debits (recorded with a negative sign in the balance of payments). Hence, FDI flows with a negative sign indicate that at least one of the three components of FDI (equity capital, reinvested earnings or intra-company loans) is negative and not offset by positive amounts of the remaining components. These are instances of reverse investment or disinvestment.

UNCTAD regularly collects published and unpublished national official FDI data directly from central banks, statistical offices or national authorities on an aggregated and disaggregated basis for its FDI/TNC database. These data constitute the main source for the reported data on FDI flows. These data are further complemented by the data obtained from other international organizations such as the International Monetary Fund (IMF), the World Bank, the Organization for Economic Co-operation and Development (OECD), the Economic Commission for Europe (ECE) and the Economic Commission for Latin America and the Caribbean (ECLAC), as well as UNCTAD's own estimates.

For the purpose of assembling balance-of-payments statistics for its member countries, IMF publishes data on FDI inflows and outflows in the Balance of Payments Statistics Yearbook. The same data are also available in the International Financial Statistics of IMF for certain countries. Data from IMF used here were obtained directly from the CD-ROMs of IMF containing balance-of-payments statistics and international financial statistics. For those economies for which data were not available from national official sources or the IMF or for those for which available data do not cover the entire period, data from the World Bank's World Development Indicators CD-ROMs were used. The World Bank report covers data on net FDI flows (FDI inflows less FDI outflows) and FDI inward flows only. Consequently, data on FDI outflows, which we report as World Bank data, are estimated by subtracting FDI inward flows from net FDI flows. For those economies in Latin America and the Caribbean for which the data are not available from one of the above-mentioned sources, data from ECLAC were utilized.

¹ The foreign direct investment outflows and inflows are divided by 1000 for the scale adjustment purposes.

Data from ECE were also utilized for those economies in Central and Eastern Europe, Central Asia and selected economies in Developing Europe for which data are not available from one of the above-mentioned sources. Furthermore, data on the FDI outflows of the OECD, as presented in its publication, Geographical Distribution of Financial Flows to Developing Countries, and as obtained from their web databank, are used as proxy for FDI inflows. As these OECD data are based on FDI outflows to developing economies from the member countries of the Development Assistance Committee (DAC) of OECD, inflows of FDI to developing economies may be underestimated. In some economies, FDI data from large recipients and investors are also used as proxies.

Finally, in those economies for which data were not available from either of the above-mentioned sources or only partial data (quarterly or monthly) were available, estimates were made by annualizing the data if they are only partially available (monthly or quarterly) from either the IMF or national official sources; using data on cross-border mergers and acquisitions (M&As) and their growth rates; and using UNCTAD's own estimates.

FDI inward performance index scores and ranks 140 countries for the three year period by comparing each country's FDI and Gross Domestic Product (GDP). The index is the ratio of a country's share in global FDI flows to its share in global GDP (WIR 2001, p. 23). The mathematical formula is:

$$INDi = \frac{\frac{FDIi}{FDIw}}{\frac{GDPi}{GDPw}}$$
(4)

where, INDi = FDI inward performance index of the ith country

$$\frac{\text{FDIi}}{\text{FDIw}} \tag{5}$$

= FDI inflows (\$ million) in the ith country/World FDI inflows (\$ million)

$$\frac{\text{GDPi}}{\text{GDPw}} = \text{GDP in the i}^{\text{th}} \text{ country/World GDP}$$
 (6)

Therefore, if a country's share in global FDI flows matches its relative share in global GDP the country's Inward FDI Performance Index would be one. A score greater than one indicates a larger share of FDI relative to GDP and a score less than one indicates a smaller share of FDI relative to GDP.

We use three year average FDI inflows, FDI outflows and the performance of FDI inflows as dependent variables in the regression analysis. We matched the latest year of the three year to the year of controlling variables². The three year average of FDI inflows is the three year average foreign direct investment inflows in millions of dollars. The three year average of FDI outflows is the three year average foreign direct investment outflows in millions of dollars. The three year average performance of FDI inflows is the three year average inward foreign direct investment performance index. If the performance is better, the index shows greater value. These variables are all from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD).

Corporate governance variables are from La Porta et al. (1998) [20] and corporate transparency variables are from Bushman, Piotroski and Smith (2004) [7]. First we calculate the correlation between corporate governance variables from La Porta et al. (1998) [20] and corporate transparency variables from Bushman, Piotroski and Smith (2004) [7]. After we calculate the correlation, we discard the variables with more than sixty percent correlations with each other to avoid multicollinearity problem within the regression. We come up with two corporate governance and transparency variables, respectively. Corporate governance variables are accounting standard and antidirector. Accounting standard is the index created by examining and rating companies' 1990 annual reports on their inclusion or omission of 90 items. This index is from International accounting and auditing trends, Center for International Financial Analysis and Research. Antidirector is the index aggregating the shareholder rights La Porta et al. (1998) [20] labeled as "anti-director rights". Corporate transparency variables are measure and nanalyst. Bushman, Piotroski and Smith (2004) [7] categorize corporate transparency variables into three groups: corporate reporting private environment, information acquisition dissemination of information. Measure is from the corporate reporting environment group and nanlayst is from the private information acquisition group. Measure is a rough attempt to capture cross-country differences in the accounting principles used. Using International Accounting and Auditing Trends, Center for Financial Analysis and Research, Inc. (IAAT) database, measure captures the extent to which 1) financial statements reflect subsidiaries on a consolidated basis, and 2) general reserves are used. Nanalyst is the number of analysts following the largest 30 companies in each country in 1996.

Controlling variables are as follows. GDP is the three year average GDP in millions of dollars. Three of them come from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD). The real exchange rate is calculated using nominal exchange rates and price indices from the IMF International Financial Statistics. The exchange rate series are indexed with the dollar exchange rate in 1989 set to 1 in each country³. There are

² For example, if the three year is from 1989 to 1991, then we match the latest year (1991) to the year 1991 data of controlling variables. From the controlling variables, we use three year average GDP. For this three year average GDP, we matched the latest year as the way we did for dependent variables.

³ Some countries have missing data, so the exchange rate series for these countries are indexed with the dollar exchange rate in the year that is observed first.

several papers analyzing the relationship between exchange rate and FDI (Froot and Stein, 1991 [12]; Klein and Rosengren, 1994 [19]; Dewenter, 1995 [10]; Blonigen, 1997 [5]). Corporate top tax rates, which are defined as the maximum marginal corporate tax rates in each country and year, are from the World Tax Database maintained by the Office of Tax Policy Research at the University of Michigan. There is a paper investigating the relationship between tax rate and FDI (Desai, Foley and Hines, 2004 [9]). Capital account openness is based on Brune et al. (2001) [6]. We form a closedness index, using Brune et al. (2001) [6] data, as the way in Baker, Foley and Wurgler (2009) [3].

TABLE I shows the description of each variable. The sample period is from 1990 to 2002 spanning 28 countries. All the variables are calculated for each country and year, except for corporate governance variables, corporate transparency variables and capital account closedness measure.

IV. EMPIRICAL RESULTS

A. Summary Statistics and Correlation

TABLE II shows the summary statistics of variables. The mean of FDI_{outflows} is higher than that of FDI_{inflows}, and so does the standard deviation. Each median value of FDI_{outflows} and FDI_{inflows} is lower than its mean. It is because the distributions of FDI_{outflows} and FDI_{inflows} are skewed to the left due to the extreme values. The mean of ExRate is way higher than the median, and it is because some countries, such as Brazil, have extremely high ExRate value in certain years. GDP variable also shows a significant difference between the mean value and the median value. The mean and median of all other variables are close with each other. The mean of accounting standard and antidirector is 64.42 with the maximum value of 83 and 3.18 with the maximum value of 5, respectively. Overall, the sample shows high level of corporate governance. Specifically, La Porta et al. (1998) [20] document that antidirector represents the protection of property rights. So, the sample shows high level of the protection of property rights. The mean of measure and nanalyst is 75.16 with the maximum value of 100 and 15.55 with the maximum value of 32.40. Bushman, Piotroski and Smith (2004) [6] argue that measure represents the characteristic of corporate reporting environment and nanalyst represents that of private information acquisition among all the corporate transparency characteristics. So, the sample shows high level of corporate reporting environment, while average level of private information acquisition.

TABLE III shows the Pearson correlation matrix among variables. Overall, variables show less then fifty percent correlations with each other. There are some variables which show correlations close to fifty percent. For example, measure and GDP show a -0.50 correlation within one percent significance level. The correlation between CAC and accounting standard is -0.48 and it is statistically significant within one percent significance level. The correlation between CAC and nanalyst and that between antidirector and measure

is -0.46 and 0.42. Both of them are statistically significant within one percent significance level. For the corporate governance and transparency variables, the correlation between antidirector and nanalyst is -0.25 and it is statistically significant within one percent significance level. The correlation between measure and nanalyst is -0.36 and it is also statistically significant within one percent significance level. The correlation between measure and accounting standard is -0.02, but it is not significant. Some of the variables are not statistically significant for the correlations. For example, the correlation between ExRate and nanalyst and that between ExRate and GDP are not statistically significant. Also, the correlation between ExRate and antidirector and that between CAC and GDP are not statistically significant.

B. Regression Analysis of FDI Flows, FDI Inward Performance, Corporate Governance and Corporate Transparency: Newey-West Estimator

TABLE IV shows the results of regression analysis of FDI flows, FDI inward performance, corporate governance and corporate transparency. We perform the regression analysis with Newey-West estimator of individual corporate transparency variables (log(measure) and log(nanalyst)) and individual corporate governance variables (log(accounting standard) and antidirector) on FDI flows and inward performance. This individual analysis will give insights on the relationship between the FDI flows or inward performance and the corporate governance or transparency level of hosting countries. Variable descriptions are the same as the ones in TABLE I. Some variables are scaled by taking natural logs(=log) or dividing them by $1000(=x10^{-3})$. Total of 266 or 279 country-year observations are used.

The results show that the antidirector rights level of hosting countries as in La Porta et al. (1998) has a positive relationship with the foreign direct investment (FDI) inward performance (three year average). The effect of the number of analyst index as in Bushman, Piotroski and Smith (2004) [6] of hosting countries on the FDI inward performance is significantly positive. The effect of cross-country differences in accounting principles index as in Bushman, Piotroski and Smith (2004) [6] of hosting countries on the FDI inward performance is positive and significant within ten percent significance level. However, when both corporate governance and transparency variables are included in the model, the effect of cross-country differences in accounting principles index of hosting countries on the FDI inward performance disappear. Also, the effect of anti-director rights as in LLSV (1998) of hosting countries on FDI inward performance is positive significant within one percent significance level. The effect of the number of analyst index of hosting countries on the FDI inflows is positive significant, while all the other corporate governance or transparency variables do not have any effect on FDI flows. For controlling variables, there is a positive relationship between three year average GDP and FDI outflows, while there is a negative relationship between three year average GDP and FDI inward performance. Hosting countries with high GDP invest more in foreign countries, but foreign direct investment performances within these countries are lower. Also, there is a negative relationship between three

⁴ Extreme values are controlled by taking natural logs, but are not discarded because they are the characteristics of countries.

year average real exchange rate and FDI outflows. Hosting countries with high real exchange rate invest less in foreign countries. The R-squared for each regression ranges from 0.37 to 0.51.

Overall, the results show the specific relationship between the FDI flows or FDI inward performance and the corporate governance or transparency level of hosting countries. The number of analyst index of hosting countries positively affects the FDI inflows, implying that the overall corporate transparency of hosting countries drives foreign investments to hosting countries. Also, the number of analyst and the antidirector rights level of hosting countries increase the FDI inward performance of foreign firm's investment in the hosting countries. The results support the related literature that the good overall corporate transparency of hosting countries, measured by the number of analysts, facilitates the foreign direct investment inflows. The results also extend the related literature in that the good corporate governance or transparency, especially the number of analyst and the antidirector rights level, of hosting countries leads to the increase in the performance of foreign firm's investment in the hosting countries.

V. CONCLUSION

The relationship between the FDI and the corporate governance is well documented in the related literature. By using the regression analysis with Newey-West estimators, we investigate the relationship between the FDI and the corporate governance or transparency in detail by looking at FDI flows, FDI inward performance and the specifically categorized corporate governance or transparency variables.

The main empirical results can be summarized as follows. First, hosting countries with stronger anti-director rights as in La Porta et al. (1998) [20] have higher FDI inflows or FDI inward performance after controlling for macroeconomic variables Second, corporate governance and transparency level of hosting countries positively affects the FDI inward performance after controlling for macroeconomic variables. Specifically, the number of analyst and anti-director rights level of hosting countries increase the FDI inward performance of foreign firm's investment in the hosting countries.

The contribution of this paper is as follows. First, we partially support the related literature in that FDI flows are positively affected by the number of analyst, one of the corporate transparency measures in the paper, of hosting countries. Second, we extend the evidence of the related literature, by looking at the FDI inward performance, in that FDI inward performance has consistently positive relationships with corporate governance or transparency level of hosting countries, especially the number of analyst and the anti-director rights level as in Bushman, Piotroski and Smith (2004) [6] and La Porta et al. (1998) [20], respectively.

ACKNOWLEDGMENT

Haksoon Kim would like to thank Tung-Hsiao 'Jack' Yang, Fan Chen and Wei-Ling Song for helpful comments.

REFERENCES

- Admati, A. and Pfleiderer, P. (2000). Forcing firms to talk, Financial disclosure and externalities, Review of Financial Studies, 13, 479-520.
- [2] Aizenman, J. and M. M. Spiegel (2002). Institutional Efficiency, Monitoring Costs, and the Investment Share of FDI, NBER Working Paper No. 9324.
- [3] Baker, M.P., Foley, C.F. and Wurgler, J. (2009). Multinationals as arbitrageurs, The effect of stock market valuations on foreign direct investment, Review of Financial Studies, 22/1, 337-369.
- [4] Bekaert, G. and Harvey, C.R. (2000b). Foreign speculators and emerging equity markets, Journal of Finance, 55, 565-613.
- [5] Blonigen, B.A. (1997). Firm-specific assets and the link between exchange rates and foreign direct investment, American Economic Review, 87, 447-465.
- [6] Brune, N., Garrett, G., Guisinger, A., Sorens, J., 2001. The political economy of capital account liberalization. UCLA International Institute working paper.
- [7] Bushman, R., Piotroski, J. and Smith, A. (2004). What determines corporate transparency?, Journal of Accounting Research, 42, 207-252.
- [8] Demirguc-Kunt, A. and Levine, R. (1996). Stock market development and financial intermediaries, Stylized facts, The World Bank Economic Review, 10, 291-321.
- [9] Desai, M.C. and Foley, F., Hines, J.R. (2004). Foreign direct investment in a world of multiple taxes, Journal of Public Economics, 88, 2727-2744.
- [10] Dewenter, K. (1995). Do exchange rate changes drive foreign direct investment?, Journal of Business, 68, 405-433.
- [11] Eaton, J. and A. Tamura (1994). Bilateralism and Regionalism in Japanese and U.S. Trade and Direct Foreign Investment Patterns, Journal of the Japanese and International Economies, 8/4, 478–510.
- [12] Froot, K.A. and Stein, J.C. (1991). Exchange rates and foreign direct investment, An imperfect capital markets approach, The Quarterly Journal of Economics, 106, 1191-1217.
- [13] Globerman, S. and D. Shapiro (2002). Global Foreign Direct Investment Flows, The Role of Governance Infrastructure, World Development, 30/11, 1899–1919.
- [14] Habib, M. and L. Zurawicki (2002). Corruption Differentials and Foreign Direct Investment, Journal of International Business Studies, 33/2, 291-308
- [15] Henry, P.B. (2000a). Stock market liberalization, economic reform, and emerging market equity prices, Journal of Finance, 55, 529-564.
- [16] Henry, P.B. (2000b). Do stock market liberalization cause investment booms?, Journal of Financial Economics, 58, 301-334.
- [17] Kaufmann, D., A. Kraay and P. Zoido-Lobatón (1999). Aggregating Governance Indicators, Policy Research Paper No. 2195 (Washington, DC. The World Bank).
- [18] Kim, W.S., Esmeralda and L., Zychowicz, E.J. (2005). Can stock market liberalization in emerging economies mitigate legal systems deficiencies?, Journal of Financial Research, 28, 421-437.
- [19] Klein, M.W. and Rosengren, E. (1994). The real exchange rate and foreign direct investment in the United States, Journal of International Economics, 36, 373-389.
- [20] La Porta, R., Lopez-De-Silanes, F., Shleifer, A. and Vishny, R. (1998). Law and finance, Journal of Political Economy, 106/6, 1113-1155.
- [21] La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (1998b). The Quality of Government, NBER Working Paper No. 7403.
- [22] Levchenko, A. (2004). Institutional Quality and International Trade, HIMF Working Paper No. 04/231
- [23] Stein, E. and Daude, C. (2001). Institutions, Integration and the location of Foreign Direct Investment, IAB, mimeo
- [24] Wei, S.J. (1997). Why is Corruption So Much More Taxing Than Tax? Arbitrariness Kills, NBER Working Number No. 6255, National Bureau of Economic Research. Inc.
- [25] [Wei, S.J. (2000). How Taxing is Corruption on International Investors?, The Review of Economics and Statistics, 82/1, 1-11.

International Journal of Business, Human and Social Sciences

ISSN: 2517-9411 Vol:4, No:7, 2010

- [26] Wheeler, D. and Mody, A. (1992). International Investment Location Decisions, The Case of U.S. Firms, Journal of International Economics, 33, 57-76.
- [27] United Nations Conference on Trade and Development. Division on Investment, Technology, and Enterprise Development. 2002 World Investment Report

TABLE I VARIABLE DESCRIPTION

The definition and the way of construction of each variable are described below. The sample period is from 1990 to 2002 spanning 28 countries. Total of 305 country year observations are in the sample. Some countries have missing real exchange rate data, so the exchange rate series for these countries are indexed with the dollar exchange rate in the year that is observed first. Also, some countries have missing corporate governance or transparency indices.

Variables	Description
Dependant Variable	
FDI _{inflows}	three year average foreign direct investment inflows in millions of dollars for each country and year from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD)
FDI _{outflows}	three year average foreign direct investment outflows in millions of dollars for each country and year from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD)
FDI _{performance}	three year average inward foreign direct investment performance index for each country and year from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD)
Corporate Governance Variables	_
antidirector	index aggregating the shareholder rights La Porta et al. (1998) [20] labeled as "anti-director rights"
accounting standard	index created by examining and rating companies' 1990 annual reports on their inclusion or omission of 90 items as described in La Porta et al. (1998) [20]
Corporate Transparency	
Variables	
measure	cross-country differences in the accounting principles used as described in Bushman, Piotroski and Smith (2004).
	[7]. It is from International Accounting and Auditing Trends, Center for Financial Analysis and Research, Inc. (IAAT) database
nanalyst	number of analysts following the largest 30 companies in each country in 1996, showed in Bushman, Piotroski and Smith (2004) [7].
Control Variables	
GDP	three year average GDP from World Investment Report (WIR) Annex Tables, the United Nations Conference on Trade and Development (UNCTAD) for each country and year
ExRate	real exchange rate for each country and year calculated using nominal exchange rates and price indices from the
	IMF international Financial Statistics. Exchange rate series are indexed with the dollar exchange rate in 1989 set to 1 in each country
CorpTax	the maximum marginal corporate tax rates in each country and year from the World Tax Database, the Office of
-	Tax Policy Research at the University of Michigan
CAC	capital account closedness, shown in Baker, Foley and Wurgler (2007), based on Brune et al. (2001)

TABLE II SUMMARY STATISTICS

The definition of each variable is the same as the one in <Table 1>. N is the number of country-year observations. STD represents the standard deviation of each variable. The sample period is from 1990 to 2002 spanning 28 countries. Total of 305 country year observations are in the sample. Some countries have missing real exchange rate data, so the exchange rate series for these countries are indexed with the dollar exchange rate in the year that is observed first. Also, some countries have missing corporate governance or transparency indices.

Variables	N	Mean	Median	STD	Minimum	Maximum
Dependent Variables						
FDI _{inflows}	305	10778.45	4347.43	16052.74	-3131.00	93688.18
$FDI_{outflows}$	305	13563.60	4223.83	24124.55	-638.51	185879.02
FDI _{performance}	305	1.74	1.179	1.71	-0.57	10.51
Corporate Governance Variables						
accounting standard	266	64.42	64	9.39	36.00	83.00
antidirector	292	3.18	3	1.28	1.00	5.00
Corporate Transparency Variables						
measure	279	75.16	70.65	22.42	36.13	100.00
nanalyst	279	15.55	14.87	7.88	3.19	32.40
Control Variables						
GDP	305	607793.45	251081.33	906032.34	27341.30	4928502.33
ExRate	305	11832.22	1.14	75575.96	0.70	855289.60
CorpTax	305	31.76	33.30	7.69	8.50	50.00
CAC	305	4.14	3.40	2.87	1.00	9.00

TABLE III PEARSON CORRELATION MATRIX

The definition of each variable is the same as the one in <Table 1>. The sample period is from 1990 to 2002 spanning 28 countries. Total of 305 country year observations are in the sample. Some countries have missing real exchange rate data, so the exchange rate series for these countries are indexed with the dollar exchange rate in the year that is observed first. Also, some countries have missing corporate governance or transparency indices. T-statistic is in the parenthesis below each correlation value. **, **** represents five and one percent significance level, respectively.

Variables	measure	nanalyst	accounting standard	antidirector	GDP	ExRate	CorpTax	CAC
measure	1							
nanalyst	-0.36	1						
	(<.0001)***							
accounting standard	-0.02	0.38	1					
	(0.6896)	(<.0001)***						
antidirector	0.42	-0.25	0.24	1				
	(<.0001)***	(<.0001)***	(<.0001)***					
GDP	-0.50	0.33	0.06	-0.05	1			
	(<.0001)***	(<.0001)***	(0.3518)	(0.3728)				
ExRate	0.18	0.01	-0.19	-0.02	0.0005	1		
	(0.0023)***	(0.8478)	(0.0022)***	(0.6927)	(0.9931)			
CorpTax	-0.27	-0.07	-0.13	-0.18	0.18	-0.30	1	
	(<.0001)***	(0.2595)	(0.0308)**	(0.0025)***	(0.0017)***	(<.0001)***		
CAC	0.13	-0.46	-0.48	0.22	-0.02	0.27	-0.04	1
	$(0.0279)^{**}$	(<.0001)***	(<.0001)***	(0.0001)***	(0.7258)	(<.0001)***	(0.4876)	

TABLE IV

REGRESSION ANALYSIS OF FDI FLOWS, FDI INWARD PERFORMANCE, CORPORATE GOVERNANCE AND CORPORATE TRANSPARENCY: NEWEY-WEST ESTIMATOR The definition of each variable is the same as the one in <Table 1>. The sample period is from 1990 to 2002 spanning 28 countries. Total of 266 or 279 country year observations are used for the estimation. Some countries have missing real exchange rate data, so the exchange rate series for these countries are indexed with the dollar exchange rate in the year that is observed first. Also, some countries have missing corporate governance or transparency indices. Coefficients of intercepts and year dummies are excluded from the table. t-statistics are in the parentheses. *, ***, ***** represents ten, five, and one percent significance

Independent Variables:	log (measure)	log (nanalyst)	log (accounting standard)	Anti- director	log (GDP)	log (ExRate)	log (CorpTax)	CAC	R ²	Number of Obs.
$FDI_{outflows}(x10^{-3})$			4.68	3.26	11.21	-1.14	-5.36	-1.99	0.40	266
			(0.56)	(1.19)	(3.91)***	(-1.74)*	(-1.54)	(-2.19)**		
$FDI_{inflows}(x10^{-3})$			5.07	1.61	4.63	0.79	-1.82	-1.55	0.37	266
			(0.75)	(0.96)	(2.29)**	$(1.90)^*$	(-0.58)	(-3.14)***		
$FDI_{performance}$			0.90	0.33	-0.50	-0.03	-1.37	-0.21	0.41	266
			(0.75)	(3.03)***	(-3.41)***	(-0.52)	(-2.29)**	(-3.03)***		
Panel B: Transparency										
$FDI_{outflows}(x10^{-3})$	20.31	7.45			11.57	-2.47	-2.24	-0.79	0.43	279
	(1.39)	(1.64)			(2.40)**	(-2.94)***	(-0.54)	(-0.88)		
$FDI_{inflows}(x10^{-3})$	10.26	7.59			3.63	0.004	1.09	-0.64	0.41	279
	(1.26)	$(2.45)^{**}$			(1.33)	(0.01)	(0.34)	(-1.23)		
FDI _{performance}	0.81	1.58			-0.88	-0.14	-0.88	-0.02	0.46	279
	(1.67)*	(3.96)***			(-3.78)***	(-2.67)***	(-1.46)	(-0.34)		
Panel C: Governance & Transparency										
$FDI_{outflows}(x10^{-3})$	16.76	6.94	-0.24	1.91	11.78	-2.17	-2.71	-1.11	0.43	266
	(1.27)	(1.03)	(-0.02)	(0.83)	(2.39)**	(-2.65)***	(-0.66)	(-1.03)		
$FDI_{inflows}(x10^{-3})$	8.18	8.57	-2.06	1.00	3.52	0.13	1.52	-0.72	0.41	266
	(1.13)	(1.99)**	(-0.23)	(0.70)	(1.26)	(0.29)	(0.47)	(-1.27)		
FDI _{performance}	0.23	1.65	-0.56	0.33	-0.90	-0.09	-0.72	-0.08	0.51	266
	(0.47)	(3.77)***	(-0.54)	(2.95)***	(-4.30)***	(-1.53)	(-1.31)	(-1.00)		