

**THE IMPACT OF MACROECONOMIC AND INSTITUTIONAL  
VARIABLES ON FOREIGN DIRECT INVESTMENT FLOWS IN  
EMERGING MARKETS**

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**Özet**

*Bu çalışmanın amacı “gelişen ekonomilere” (yükselen piyasalar) yönelik Doğrudan Yabancı Yatırım (DYY) hareketlerinde sosyal, siyasal ve iktisadi kurumların rolünü incelemektir. Gelişmekte olan ülkelerde pazarın büyüklüğü, iktisadi büyüme performansı gibi makroekonomik değişkenlerin yanı sıra, kurumsal değişkenler de DYY hareketlerinde önemli rol oynamaktadırlar. Bu çalışma yükselen piyasaların neden farklı miktarlarda DYY çektiğini (DYY dağılımının bölgelere ve ülkelere göre eşit olmaması) siyasal ve sosyo-ekonomik kurumların farklılıkları ile açıklamaktadır. Çalışmada, yatırım mekanizması, siyasal ve ekonomik istikrar, sivil ve politik haklar ve yolsuzluk gibi kurumsal değişkenlerin yabancı yatırım motivlerini ne yönde etkilediği ampirik olarak incelenmeye çalışılmıştır.*

**Anahtar Kelimeler:** Doğrudan Yabancı Yatırımlar, Kurumsal İktisat, Yükselen Piyasalar

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## **Abstract**

*The major focus of this study is on the relationship between political, social and economic institutions and Foreign Direct Investment (FDI) in Emerging Markets. We believe that macroeconomic factors such as market size and growth rates affect FDI flows in a positive way; plus, we assert that one should also look at the quality of institutions, in order to understand the uneven distribution of FDI in developing countries, especially in emerging economies. Explanations for distribution of FDI flows are either nonexistent or generally ad hoc, therefore, this study explores how differences in social economic and political institutions help explain these cross-country variations in FDI flows. This study tries to empirically verify the argument that institutional factors such as enforcement mechanisms, political and economic stability, civil and political rights and corruption are critical in explaining the behavior of the foreign direct investment inflows in emerging markets.*

**Keywords:** *Foreign Direct Investment, Institutional Economics, Emerging Markets*

## **1. Introduction**

For a decade, the relationship between institutions and Foreign Direct Investment (FDI) has been receiving growing attention. One of the reasons is that in the economic growth literature, the number of studies mentioning the importance of institutions as determinant of economic growth has increased. As FDI is, by and large, related to economic growth, therefore, studying the link between FDI and institutions has become relevant. Second, the role of institutions in transition economies, especially the link between the quality of institutions and FDI in these countries, has led scholars to focus on the quality of institutions as determinants of FDI in developing countries.

In the literature numerous theories focus on the firm-level analysis however, the role of institutions on FDI flows remains seriously understudied. This study focuses on the role of macroeconomic and especially on institutional variables as determinants of FDI in emerging economies.

With the increasing globalization after 1980, changes in emerging market government policies in trade and investment environment facilitate FDI into these markets. Due to their growth performances and huge market sizes, these economies became attractive for many Multinational Corporations (MNCs).

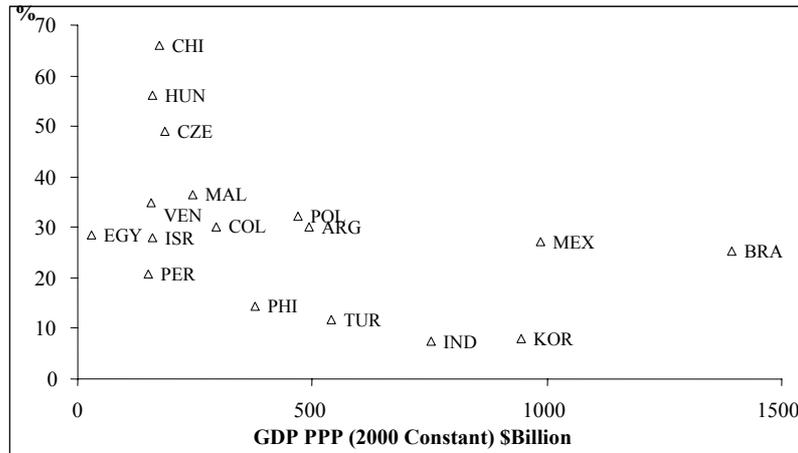
An emerging market can be defined as a country in which its national economy grows rapidly, its industry is structurally changing, its market is promising but volatile, its regulatory framework favors economic liberalization and the adoption of a free-market

system and its government is reducing bureaucratic and administrative control over business activities.<sup>3</sup>

Similar to this definition, the World Bank defines an emerging market as one where GDP per capita income is below \$8,000 per annum but potentially dynamic and rapidly growing economies, where MNCs can seek lucrative opportunities for medium to long term investments<sup>4</sup>.

Comprising more than half of the world's population, Emerging Markets (or Emerging Economies) are often featured with strong market demand and have very high growth rates. They can be distinguished by the recent progress they have made in economic liberalization. In these countries the entry of MNCs is welcome as it represents an inflow of foreign savings into the country, supplementing domestic savings and directly increasing the level of investment.

**Fig. 1 FDI stock as percentage of GDP in Emerging Markets – 2005.**



Source: UNCTAD (2006), WDI (2006). (The country sample includes: Chile, Hungary, Czech Republic, Malaysia, Venezuela, Egypt, Israel, Colombia, Poland, Argentina, Mexico, Brazil, Peru, Philippines, Turkey, India, Korea (South)).

However, the FDI performances of these countries vary. Figure 1 shows the FDI stock as percentage of GDP in the emerging economies. Czech Republic, Hungary and Chile are the most successful countries receiving FDI stock over 50 percent of their GDP.<sup>5</sup>

<sup>3</sup> S. T. Cavusgil "Measuring The Potential of Emerging Markets : An Indexing Approach" - **Business Horizons**, Vol. 40 no. 1 (January-February 1997), pp. 87-91.

<sup>4</sup> Y. Luo, **Multinational Enterprises in Emerging Markets** (Copenhagen: Copenhagen Business School Pres, 2002), p.4.

<sup>5</sup> Hong Kong and Singapore, one of the emerging markets FDI stock as 160% of GDP. In Russia the ratio is 17.2. china 16%. Hong kong %308.

On the other hand, Philippines, Turkey, Korea and India receive low level of FDI stock when compared to their market sizes.

The uneven distribution of FDI stock in these countries can be analyzed by taking into consideration that these economies are not homogeneous. The size of markets, economic growth rates and economic development stages vary among countries. Further, the stage of economic development, political, regulatory and legal regimes differ across emerging markets.

Some of these differences are seen clearly in the Table 1. Several international institutions offer indices demonstrating the position of political, economic and financial risks as well as economic freedom, civil rights in these countries.

**Table 1. Emerging Markets – Rankings – 2005**

Countries	Market Size	Market Growth	Commercial Infrastructure	Economic Freedom	Country Risk	Overall Market Potential
HONGKONG	21	12	1	2	2	1
SINGAPORE	24	6	5	9	1	2
CHINA	1	3	14	24	11	3
S.KOREA	6	19	3	7	4	4
ISRAEL	22	13	4	6	6	5
HUNGARY	23	23	6	3	5	6
CZECH REP.	20	22	1	2	3	7
POLAND	11	14	7	4	8	8
INDIA	2	8	22	16	14	9
MEXICO	5	18	15	10	10	10
RUSSIA	3	21	9	23	15	11
THAILAND	13	5	16	12	12	12
MALAYSIA	17	2	13	17	9	13
CHILE	18	11	8	1	7	14
TURKEY	9	9	10	18	19	15
EGTYP	14	7	19	22	16	16
PERU	19	4	21	11	20	17
BRAZIL	4	15	12	13	17	18
INDONESIA	7	10	20	20	22	19
PHILIPPINES	10	17	24	13	18	20
ARGENTINA	12	16	11	15	24	21
S.AFRICA	8	20	23	8	13	22
VENEZUELA	15	1	18	21	23	23
COLOMBIA	16	24	17	19	21	24

Source: Market Potential Indicators for Emerging Markets, Michigan State University Center for International Business Education and Research (2006).

In this context, the differences of the country performances attracting FDI can be explained with other variables such as differences in commercial infrastructures, economic freedom and country risk levels in these countries. Table 1 demonstrates interesting results;

India, with a rank of 2 when market size is considered, stands at the rank of 9 when other variables economic freedom, country risk and commercial infrastructure are introduced into the list. When market size, market growth and commercial infrastructure are considered, Turkey stands at the rank of 9. Whereas, according to other facts such as economic risk and country risk, Turkey's position falls to subsequently 18 and 19. At the end, Turkey's overall market potential ranks 15.<sup>6</sup> The economic freedom risk and country risk index lead a decrease at the position of Turkey's overall market potential.

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<sup>6</sup> For a detailed methodology about the emerging markets list, see **Market Potential Indicators for Emerging Markets**, Michigan State University Center for International Business Education and Research (2006).

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**Table 2 Ranking Period 2001 – 2005**

Countries	2005	2004	2003	2002	2001
HONGKONG ch.	1	1	1	1	3
SINGAPORE	2	2	2	2	1
CHINA	3	4	5	5	4
S.KOREA	4	3	3	3	2
ISRAEL	5	5	4	4	6
HUNGARY	6	6	6	6	8
CZECH REP.	7	7	7	7	5
POLAND	8	9	8	8	7
INDIA	9	8	9	10	8
MEXICO	10	11	10	11	12
RUSSIA	11	12	15	13	17
THAILAND	12	13	12	12	10
MALAYSIA	13	14	13	17	13
CHILE	14	10	11	9	14
TURKEY	15	15	14	14	18
EGYPT	16	16	19	21	-
PERU	17	21	18	18	-
BRAZIL	18	20	17	16	16
INDONESIA	19	17	16	22	19
PHILLIPPINES	20	18	20	19	15
ARGENTINA	21	19	23	15	11
S.AFRICA	22	22	21	20	20
VENEZUELA	23	24	22	23	21
COLOMBIA	24	23	24	24	-

Source: Market Potential Indicators for Emerging Markets, Michigan State University Center for International Business Education and Research (2006).

Since 2001 Hong Kong (China) dominated the emerging markets rankings, followed by Singapore and China. Interestingly, Central and European countries, Poland, Czech Republic, and Hungary, also called economies in transition, are placed at the top of the list. On the other hand, Turkey, Brazil and Argentina rank lower scores, mostly not related to the market size, but to economic freedom and country risk indices.

In order to reveal the role of non-economic facts explaining the uneven distribution of FDI in emerging markets in relation to their GDPs, we applied panel-data regressions for 21 emerging markets for the period 1984-2006. Before explaining the result of the empiric analysis, a brief literature survey will be presented.

## 2. Determinants of Foreign Direct Investment

This study focuses on one of the most stable of the international capital flows, Foreign Direct Investment (FDI). According to one of the oldest definitions of Foreign Direct Investment, by Kindleberger, FDI is referred to as long-term capital flow and differs from portfolio investment by taking place in kind, through the exchange of property (patents, technology or machinery) and by acquiring control of a company.<sup>7</sup> It also differs from other kinds of international capital movements in that direct investment proceeds by the reinvestment of profits and accompanied by varying degrees of control, plus technology and management.<sup>8</sup>

Investing abroad by MNCs constructing subsidiaries called “Greenfield Investment”, whereas, these firms may also invest abroad, a common form in developed countries, by investing in established firms, through mergers and acquisitions, or through privatization programs (called as Brownfield Investment). Several developing economies have received this form of FDI due to the privatization programs took place especially after 1980.

The motives for investing abroad either by establishing a new corporation or investing in established firms have received remarkable attention from scholars. Their main concern is answering the question: What explains patterns of FDI flows across the globe?

As the volume of international investments substantially increased in the post World War II period, the number of studies examining the question “Why do firms invest abroad?” increased, in parallel. Economists have studied FDI extensively and their findings are very straightforward. Most of them focus on economic indicators, leaving out the role of institutional variables.

More recently, in the existing literature, the motives of FDI have been examined in two categories. In this view a firm realizes the investment to better serve the local market or

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<sup>7</sup> Charles Kindleberger, **American Investment Abroad** (New Haven: Yale University Press, 1969), p.2.

<sup>8</sup> However, some definitions put more emphasis on the “control” factor. OECD recommends that a direct investment enterprise be defined as an incorporated or unincorporated enterprise in which a foreign investor owns 10 per cent or more of the ordinary shares or voting power of an incorporated enterprise or the equivalent of an unincorporated enterprise....An effective voice in the management, as evidenced by an ownership of at least 10 percent, implies that the direct investor is able to influence, or participate in the management of an enterprise; it does not require absolute control by the foreign investor” (OECD, (Organization for Economic Cooperation and Development); **OECD Benchmark Definition of Foreign Direct Investment**, 3d Edition (Paris: OECD, 1996), p.8. For a detail study about definitions of FDI, see R. E. Lipsey, “Foreign Direct Investment and the Operations of Multinational Firms: Concepts, History and Data. **Working Paper 8665** National Bureau of Economic Research 1050 Massachusetts Avenue Cambridge: NBER, MA 02138 (December 2001).

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to get lower-cost inputs, or both. In other words, FDI can be divided into “horizontal” or “market-seeking” FDI, and “vertical” or “efficiency seeking” FDI.<sup>9</sup>

The first involves building plants in a host country to supply the local market. This approach is done to reduce the costs that arise from supplying the market through exporting, in which case, market size and high tariffs play a large role in determining profitability. The latter category of vertical FDI is production cost-minimizing, where firms seek to produce in lower cost locations or seek inexpensive inputs in order to export their product. Inexpensive inputs include natural resources, raw materials, or low-cost inputs such as labor. Finally, asset seeking FDI is the most recent motive for FDI to be identified. It refers to a strategy that aims to access and exploit technological assets in overseas countries. Developed countries are the main recipients for Research and Development (R&D) investment, but countries such as Hungary, Czech Republic, India and Brazil are also attracting more and more R & D projects. Asset seeking MNCs focus on the skilled labor availability, research institutes, large supply of graduate labor, created assets including innovative capacity, technological adoption, and technical skills when choosing an investing location.

The differentiation between the first two is that market-seeking FDI aims at penetrating the local markets of the host country, whereas efficiency-seeking FDI is interested in creating new sources of competitiveness for firms.<sup>10</sup>

In various studies, the size of host country markets is the most popular explanation for FDI. The types of market-size variables include: Gross Domestic Product (GDP), GDP per capita, GDP growth and population as seen in studies by Agarwal, Wheeler and Mody, Chakrabarti.<sup>11</sup> While Singh and Jun find that export orientation is one of the strongest explanatory variables, Chakrabarti found that openness to trade was the strongest variable affecting FDI.<sup>12</sup> Nunnenkamp found that the traditional determinants (GDP per capita, GDP growth, population, administration, entry restrictions and risk factors) remain the dominant factors shaping the distribution of FDI.<sup>13</sup> The non-traditional determinants (cost factors, taxes, factors of production, sufficiently qualified labor and openness to trade) also affect

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<sup>9</sup> C.A. Michalet “Strategies of Multinationals and Competition for Foreign Direct Investment” **Foreign Investment Advisory Service, Occasional Paper** no.10 (Washington: The World Bank,1997). pp. 12-15.

<sup>10</sup> For a detailed study see J.R. Markusen “The Boundaries of Multinational Enterprises and the Theory of International Trade”, **Journal of Economic Perspectives**, Vol.9, Spring (1995); S. L. Brainard, “An Empirical Assessment of Proximity –Concentration Trade-Off Between Multinational Sales and Trade”, **NBER, Working Papers**, no. 4580(1993).

<sup>11</sup> J. P. Agarwal, “Determinants of Foreign Direct Investment: A Survey”. **Welwirtschaftliches Archiv** no.116(1980),pp.739-773; D. Wheeler and A. Mody, “International Investment Location Decisions: The Case of U.S. Firms”, **Journal of International Economics**, 33, no. 1 (1992), pp. 57-76; A. Chakrabarti, “The Determinants of Foreign Direct Investment: Sensitivity Analyses of Cross-Country Regressions”, **Kyklos**, 54, no. 1 (2001), pp. 89-113.

<sup>12</sup> K. Jun and H. Singh, “The Determinants of Foreign Direct Investment in Developing Countries”, **Transnational Corporations**, 5, no. 2 (1996), pp. 67-105.

<sup>13</sup> P. Nunnenkamp “Determinants of FDI in Developing Countries: Has Globalization Changed the Rules of the Game?” Kiel Institute for World Economics Duesternbrooker Weg 120 24105 Kiel (Germany) **Kiel Working Paper** no. 1122 (2002).

FDI but not as much as the traditional determinants. Studies done by Markusen and Venables begin with the observation that most FDI is motivated by “market-access” reasons.<sup>14</sup>

These views are firm-level centered, yet, the role of social, political and economic institutions has rarely been treated. Analyses generally treat institutions as exogenous and there is little effort to understand why institutions vary across countries. In most of the models, institutions are accepted as exogenous parameters and hence, these models remain insufficient to explain the unequal distribution of FDI in developing countries.

In other words, the existing literature on the determinants of FDI, which we call the “mainstream approach to FDI” focuses on the economic determinants, and ignores, or underestimates, the role of political, economic and social institutions as determinants of FDI. We argue that institutions play an important role in attracting higher levels of FDI inflow to the host country and in this study the role of institutions is integrated to the mainstream theories of FDI.

Further, we believe that good institutions are supposed not only to attract FDI inflows but also have positive influence on development through the promotion of investment in general, which faces less uncertainty and higher expected rates of return.

### 3. Institutions

A nation’s institutional framework is the most important factor determining its economic performance over time. Yet, in economic theory, the role of institutions has often been ignored completely. The word “institution” has a variety of meanings in the institutional economics literature. In this study “institutions” are accepted as “the rules of the game” in a society which is defined by North.<sup>15</sup>

“Institutions are the rules, the regulations, (humanly devised constraints) that structure political, economic and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions and codes of conduct) and formal rules (constitutions, laws, property rights).”<sup>16</sup>

Institutions reduce the uncertainty involved in human interaction by giving us patterns for our behavior. In addition, institutions lead to a fall in both transaction and information costs by reducing uncertainty and establishing a therefore stable structure to facilitate interactions.<sup>17</sup>

The New Institutional approach introduced the role of institutions into the economic growth literature. The studies focused on the quality of domestic institutions as a key explanation of cross-country differences in growth rates and income per capita. In other words, the field of the New Institutional School suggests that differences in

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<sup>14</sup> J.R. Markusen and A.J. Venables, ‘Foreign Direct Investment as a Catalyst for Industrial Development’, *European Economic Review*, 43, no.2 (1999), pp. 335-56.

<sup>15</sup> Douglass. C North. *Institutions, Institutional Change, and Economic Performance* (New York: Cambridge University Press, 1990), p.3.

<sup>16</sup> Douglass C. North, "Institutions," *The Journal of Economic Perspectives* 5; no. 1. (Winter, 1991), p.97.

<sup>17</sup> North, 1990, p.3.

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institutions are the fundamental explanation of comparative growth.<sup>18</sup> Recent studies put emphasis on the importance of institutions as determination of growth.<sup>19</sup>

According to North:

The formal economic constraints or property rights are specified and enforced by political institutions, and the literature simply takes those as a given. But economic history is overwhelmingly a story of economies that failed to produce a set of economic rules of the game that induce sustained economic growth. The central issue of economic history and of economic development is to account for the evolution of political and economic institutions that create an economic environment that induces increasing productivity.<sup>20</sup>

New Institutional Economics (NIE) suggests that institutions do three main things important to markets: they reduce transactions costs from inadequate information (arising from informational asymmetries and the administrative costs of reducing informational asymmetries); define and enforce property rights; and determine the degree of competition by defining the terms of market entry.<sup>21</sup>

Institutions can be economic, political or social in nature. Tax laws are generally economic institutions, though they have social elements as well, especially in regards to income distribution. Laws that govern the election of presidents or prime ministers are political institutions. Laws that create and govern crime and punishment are social institutions. All of these types of institutions are important. In fact, a country's political institutions often dictate how other institutions are created.<sup>22</sup>

Economic institutions determine the "economic rules of the game"—in particular, the degree of property rights enforcement, the set of contracts that can be written and enforced, and some of the rules and regulations that determine the economic opportunities open to agents (individual property rights, commercial law, contract law, patent law, the type of credit arrangements, etc.). Economic institutions matter for economic growth because they shape the incentives of the key economic actors in society; in particular, they influence investments in physical and human capital and technology, and the organization of production.

Political institutions help to regulate the limits of political power and determine how political power changes hands (constitution, electoral rules, the number of veto players, etc).

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<sup>18</sup> Douglass C. North, and and Robert P. Thomas, **the Rise of the Western World: A New Economic History** (Cambridge UK: Cambridge University Press, 1973).

<sup>19</sup> D. Acemoglu, S. Johnson and J. Robinson "Institutions as the Fundamental Cause of Long-Run Growth" in **Handbook of Economic Growth** ed. Philippe Aghion, Steven N. Durlauf (Amsterdam: North-Holland,2005).

<sup>20</sup> North, p.98.

<sup>21</sup> In the New Institutional Economics most scholars accept market as a social institution, which facilitates exchange whereas neoclassical economics define market as the interaction between supply and demand to determine the equilibrium market price. See R. H. Coase "The Nature of the Firm: Origin" **Journal of Law, Economics, & Organization**, Vol. 4, no. 1 (Spring, 1988), pp. 3-17.

<sup>22</sup> North,1990, p.48.

The institutional framework has three components: formal rules, informal rules, and enforcement mechanisms. Formal rules are the written rules of a society. Laws governing contracts, crime, political systems, product information, the imposition of tariffs or quotas, the regulation of banks, and so on are all formal institutions.<sup>23</sup> Formal rules can be created by firms as well as governments.

Informal rules are the unwritten rules of a society. These include culture, norms of behavior, codes of conduct, and so on. Citizens of a country grow up learning all kinds of unwritten norms and attitudes and informal rules differ across nations (for example, meal times are often set by custom).

The third component of the institutional framework is enforcement. Institutions often are ineffective if they are not enforced. For example, a nation can have antitrust laws that prevent firms from becoming monopolies, but if the government does not enforce such laws, businesses may act as if the antitrust law did not exist. Some institutions are self-enforcing (for example, driving on the right side of the road when no police are in sight). Enforcement is not an all-or-nothing phenomenon. Countries may enforce laws strongly, marginally, or not at all. Enforcement is an integral part of a nation's institutional framework and may be the single most important element in explaining differences in economic performance.<sup>24</sup>

One of the important impacts of institutions on markets is that institutions reduce transactions costs from inadequate information. Transaction costs are the costs of negotiating, measuring, and enforcing exchanges.<sup>25</sup> In his well-known article, Ronald Coase mentioned that neoclassical economic theory assumes that the process of exchange is costless. The costless-exchange assumption was implicit in economic models, which means all exchanges are made in the context of good information with no possibility of one party's not honoring the agreement.<sup>26</sup> However, Coase emphasized that this assumption rarely holds in the real world. Hence, negotiating an agreement can be a long and costly process. All sides to the exchange must bargain with one another even when they are in bitter position. In addition, transaction costs include the costs of enforcing exchanges. Once an agreement is reached, the parties to the agreement must honor their commitments. But there is always the chance that the other part will not do so. If there is no enforcement mechanism to penalize and deter contract breakers, then either side to an agreement can achieve short term gains by not fulfilling its part of agreement. Lack of enforcement makes the exchange much riskier.

We believe that institutions and transaction costs play important role in the economic performance of a country. In addition, the existence of an informal economy directly affects the functioning of institutions, therefore the economic performance of the

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<sup>23</sup> Ibid, pp. 36-61.

<sup>24</sup> Ibid, 1990, pp. 54-61.

<sup>25</sup> Transaction costs theorem first examined in the article by Ronald Coase. The theorem is also known as Coase Theorem. Especially in the 1970s the role of transaction costs on MNCs mentioned took place in several studies in the FDI literature. See R. H. Coase, "The Nature of the Firm," *Economica*, no. 3 (1937), pp.386-405; R. H. Coase "The Problem of Social Cost," *Journal of Law and Economics*, no. 3(1960), pp.1-44.

<sup>26</sup> Coase, "The Nature of the Firm," pp. 386-387.

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country. In order to sustain high growth rates, to attract more FDI, governments in emerging economies should promote exchange by lowering transaction costs and encouraging trust; the state should protect private property rather than expropriate it.

There is a vast literature on the determinants of FDI. The empirical studies vary in terms of the variables, methodologies, the characteristics of FDI and the countries. The main variables affecting the FDI flows can be classified into two categories, market-oriented variables and institutional-oriented variables. The role of these variables on FDI flows into countries changes with the time and the conditions. In this study we constricted the empirical literature to the highest priority on studies focusing on institutional variables.

#### 4. Literature Survey

In the literature there are many empirical studies mentioning the importance of institutional variables. A number of studies mention that lack of political and economic stability, unclear regulatory frameworks, an inexperienced bureaucracy, an underdeveloped court system, and corruption deter more FDI inflows to host economies.

Empirical research on the impact of host country institutions on FDI has demonstrated that the general institutional, social and legal framework influences FDI. Nigh, Schneider and Frey, Wheeler and Mody show the relevance of political variables. Jun and Singh find that both “political risk” and “operations risk” significantly discourage FDI.<sup>27</sup>

An efficient legal infrastructure reduces institutional uncertainties for foreign investors, facilitates establishment and enforcement of contracts and in various other ways reduces the transaction costs in an economy. Prior research focused in particular on the impact of intellectual property rights protection on FDI, given the political sensitivity of this particular issue. Oxley and Smarzynska found that weak property rights inhibit FDI inflows.<sup>28</sup>

Habib and Zurawicki examine the impact of corruption on FDI.<sup>29</sup> They examine the level of corruption and also look at the difference in the corruption level between the host and home country. Their analysis provides support for the negative impacts of both. The results suggest that foreign investors generally avoid corruption because it is considered wrong and it can create operational inefficiencies. Wei found a result that shows that corruption has a negative effect on FDI. In addition, he mentions the weak enforcement

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<sup>27</sup> Wheeler, and Mody; Jun and Singh.

<sup>28</sup> J.E. Oxley, “Institutional Environment and the Mechanisms of Governance: The Impact of Intellectual Property Protection on the Structure of Inter-Firm Alliances,” **Journal of Economic Behavior and Organization** 24 (1999), pp. 283-310; B.K. Smarzynska, “Composition of Foreign Direct Investment and Protection of Intellectual Property Rights in Transition Economies”, **CEPR Working Paper no. 2228** (Centre for Economic Policy Research: London, 1999).

<sup>29</sup> M. Habib and L. Zurawicki, “Corruption and Foreign Direct Investment”, **Journal of International Business Studies**, 33, no.2, Second Quarter (2002), pp. 291-307.

mechanisms and political instability mean uncertainty for FDI and affects investment decision negatively.<sup>30</sup>

Wheeler and Mody examine American firms investing abroad and write that political risk factors, the functioning of the bureaucracy, corruption and judicial system have strong impact on these firms.<sup>31</sup> Using a time series analysis, Jun and Singh found that when political risk is high FDI affected negatively.<sup>32</sup> Gastanga, Nugent and Pashamova examine the relationship between political variables and found that high enforcement mechanisms, low corruption levels affect FDI positively.<sup>33</sup> Smarynzka and Wei argue that host country corruption induces foreign investors to favor joint ventures over wholly owned firms.<sup>34</sup> In his study Jensen examines the relationship between democratic rights and FDI and argues that a country which protects democratic rights receives more FDI than other countries. In other words, multinational firms prefer to invest in countries in which democratic rights are under protected.<sup>35</sup> Maskus, studying the impact of intellectual property rights on FDI, finds that a one per cent increase in degree of patent protection in host economy raises US investment stock by 0.45 per cent.<sup>36</sup>

Ray and Nigel explore the relative importance of the host country's labor institutions and agglomerations using an industry-level panel data set on the location of investments by US multinational firms in Europe.<sup>37</sup> They report that centripetal and centrifugal forces are both important. They state that the removal of barriers to trade and capital mobility within the European Union has changed the permeability of national borders and hence the location advantages of member states and the Union as a whole. FDI has risen significantly in all the major European economies.

There is also a vast literature on the effects of human capital on FDI. The first group of studies rarely found a positive relationship between human capital and FDI. For instance, Root and Ahmed showed that among the 58 developing countries, none of their proxies for human capital (literacy, school enrolment, and the availability of technical and professional workers), were statistically significant determinants of inward FDI.<sup>38</sup> Schneider and Frey, using data for 54 developing countries, found the share of an age group with secondary education to be a less significant determinant as compared with other

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<sup>30</sup>S. Wei "Why is Corruption so Much More Taxing than Tax?" *NBER Working Paper* 6255(1997).

<sup>31</sup> Wheeler and Mody.

<sup>32</sup> Jun and Sing.

<sup>33</sup> V. Gastanaga, J. Nugent and B. Pashamova, "Host Country Reforms and FDI Inflows: How Much Difference Do They Make?", *World Development* 26, no. 7 (1998), pp. 1299-1314.

<sup>34</sup> B.K. Smarzynska, and S.J. Wei "Corruption and Composition of Foreign Direct Investment: Firm-Level Evidence," *NBER Working Paper* 7969. (2000),

<sup>35</sup> M. Busse, "Transnational Corporations and Repression of Political Rights and Civil Liberties: An Empirical Analysis," *Kyklos*, 57, no. 1 (2004), pp. 45-66.

<sup>36</sup> K. E. Maskus, "Intellectual Property Rights and Foreign Direct Investment", *Policy Discussion Paper* 22, Centre for International Economic Studies, University of Adelaide (2000).

<sup>37</sup> B. Ray and, N. Pain "Domestic Institutions, Agglomerations and Foreign Direct Investment In Europe", *European Economic Review* 43 (1999).

<sup>38</sup> F. Root and A. Ahmed, "Empirical Determinants of Manufacturing Direct Foreign Investment in Developing Countries", *Economic Development and Cultural Change* 27 (1979) pp. 751-767.

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economic and political influences.<sup>39</sup> Hanson, using a sample of 105 developing countries, showed that the adult literacy rate was not an important determinant of FDI as compared with other socio-political variables.<sup>40</sup>

All these cross-country studies showed that human capital was not necessarily an important input for inward FDI. This conclusion is consistent with the fact that the period of the 1960s to 1970s was when FDI in developing countries was concentrated on market and resource seeking, rather than efficiency seeking and those cheap labor and abundant natural resources were more important.<sup>41</sup> Thus, demand for higher-educated labor appears to have been less crucial during this period.

The second group of cross-country analyses including more recent data emphasizes the importance of human capital as a significant determinant of FDI. Noorbakhsh et al., using a dataset that covers the 1980s to the mid-1990s, empirically tested the hypothesis that the level of human capital in host countries may affect the geographical distribution of FDI. These empirical findings are: (a) human capital is a statistically significant determinant of FDI inflows; (b) human capital is one of the most important determinants; and (c) its importance has become increasingly greater through time.<sup>42</sup>

Nunnenkamp and Spatz report that efforts to provide better education and training would enhance the economic growth effects of FDI in developing countries.<sup>43</sup> The major difference in the results compared with the first group of studies, apart from the econometric precision, should come from the fact that they used a more recent dataset that contains relatively more high value-added manufacturing firms. Indeed most MNCs operating in developing countries during the late 1980s and 1990s tend to be efficiency-seeking types and/or subcontracting.<sup>44</sup> Hence, high skilled labor force is expected to be crucial.

In sum, it can be argued that cross-country evidence indicates that human capital is an important determinant for inward FDI especially among efficiency-seeking MNEs, while not being an important determinant among market or resource-seeking MNCs.

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<sup>39</sup> F. Schneider, and B. Frey, "Economic and Political Determinants of Foreign Direct Investment", **World Development** 13 (1985), pp. 161-175.

<sup>40</sup> J.R. JR. Hanson, "Human Capital and Direct Investment in Poor Countries", **Explorations in Economic History** 33 (1996), pp. 86-106.

<sup>41</sup> J. H. Dunning, "Determinants of Foreign Direct Investment: Globalization Induced Changes and the Role of FDI Policies", Background Paper for the **Annual Bank Conference on Development Economics** held in Oslo, World Bank, Washington, D.C. (2002).

<sup>42</sup> F. Noorbakhsh, A. Paloni, and A. Youssef, "Human Capital And FDI Inflows To Developing Countries: New Empirical Evidence" **World Development** 29, no. 9 (2001), pp. 1593-1610.

<sup>43</sup> P. Nunnenkamp, and J. Sspatz (2002), "Determinants of FDI in Developing Countries: Has Globalization Changed the Rules of the Game?", **Transnational Corporations** 2, no. 2 (August 2002).

<sup>44</sup> J. H. Dunning, "Changes in the Level and Structure of International Production: The Last One Hundred Years" in **International Investment**, ed. Peter J. Buckley, Aldershot, Hants, (England; Brookfield, Vt., USA: E. Elgar, 1990).

Nunnenkamp investigated whether the relative importance of traditional and nontraditional determinants of FDI in developing countries changed or not by making use of comprehensive survey data from the European Round Table of Industrialists, complemented by more conventional sources on investment conditions in 28 developing countries since the late 1980s.

He found that little has changed so far. He claimed that traditional market-related determinants are still the dominant factors shaping the distribution of FDI. If at all, the bias of foreign direct investors in favor of large host countries has become stronger, rather than weaker. Non-traditional determinants such as cost factors, complementary factors of production and openness to trade, though mostly revealing the expected correlation with FDI, have typically not become more important with the proceeding globalization.

He claimed that this is not to say that policymakers can do little to improve the attractiveness of developing countries to FDI. The availability of local skills has become a relevant pull factor of FDI in the process of globalization.<sup>45</sup>

The governance indicators developed by Kaufmann, Kraay and Zoido-Lobaton were used to explore the role of institutional variables as determinants of the location of FDI. These indicators are constructed on the basis of information gathered through a wide variety of cross-country surveys as well as polls of experts, and are available for a large cross-section of countries. Each indicator represents a different dimension of governance: political voice and accountability, political instability, government effectiveness, regulatory burden, rule of law, and graft.<sup>46</sup>

Kinoshita and Campos examine the factors accounting for the geographical patterns of FDI inflows among 25 transition economies by utilizing panel data between 1990 and 1998. They classify the location determinants into three categories: the first is country-specific advantages such as low-cost labor, large domestic market, skilled labor force, adequate infrastructure, and proximity to the Western European markets. The second are institutions, macroeconomic policy and other policies that facilitate business-operating conditions. The third is the persistent pattern of FDI driven by agglomeration economies.

Using the fixed effects and GMM models, they relate per capita FDI stock as a function of these three broad categories of variables. Their main finding is that the most important determinants of FDI location are institutions and agglomeration economies that override the importance of other economic variables. They also found that the region's FDI is motivated by the abundance of natural resources and labor cost. The poor quality of the bureaucracy is found to be a deterrent to foreign investors as they conceive it as a high transaction cost which directly affects profitability of their investment projects. A similar argument is made with respect to the rule of law, which was also found to be an important determinant of FDI in transition economies. Furthermore, foreign investors prefer transition countries that are more open to trade and with fewer restrictions on FDI as the destinations

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<sup>45</sup> P. Nunnenkamp, "Determinants of FDI in Developing Countries: Has Globalization Changed the Rules of the Game?"

<sup>46</sup> D. Kaufmann, A. Kraay, and P. Zoido-Lobaton, "Aggregating Governance Indicators", *Policy Research Paper* 2195, The World Bank (1999).

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of their investment. They also found that progress on economic reform (external liberalization) plays a large role. Finally, institutions, agglomeration, abundance of natural resources and infrastructure are crucial factors for FDI.<sup>47</sup>

Li and Resnick offer a theory that synthesizes and extends the conflicting expectations in previous studies. How political institutions affect FDI inflows should mesh with why firms go abroad based on this premise. They derived a theory suggesting that democratic institutions affect FDI inflows both positively and negatively.

The empirical findings based on OLS with PCSE and a sample of 53 developing countries from 1982 to 1995 support their main argument that democratic institutions affect FDI inflows to developing countries via competing causal avenues. Increases in democracy yield improved property rights protection, which encourages FDI inflows. Meanwhile, increases in democracy also reduce FDI received by this set of Late Developing Countries. They state that incremental improvements in property rights protection are likely to induce a more attractive environment for foreign direct investors without requiring wholesale restructuring of state-society relationships, for instance, attempts to increase bureaucratic competence or provide enhanced contract enforcement could go a long way toward setting a country apart from competitors for FDI.

Conversely, states that are unable to improve property rights protection may have to amend that weakness with more incentives in tax holidays, discounts on land purchases, or exclusive access to natural resources. Superior property rights provision may thus provide an avenue for attracting investors with less sacrifice of state resources, not to mention the benefits that other actors in the economy would enjoy under a system with clearer costs and incentives.

They claim that as new democracies set up democratic institutions that may adversely affect their ability to attract FDI, these democracies may not yet be ready to provide offsetting improvements in property rights protection because they need to consolidate power and avoid conflicts with powerful domestic actors. Over time, however, the consolidation of democratic governance should bring about better property rights protection, improving the prospect of getting more FDI inflows. Countries experiencing a transition from democracy to autocracy would face the challenge of persuading foreign investors into believing the credibility of their property rights protection.<sup>48</sup>

Larrain and Tavares analyzed the effect of openness to foreign direct investment on corruption. It addresses the issue of causality by using a new set of instrumental variables that rely on geographical and cultural proximity to the major originators of FDI outflows. They found that foreign direct investment is a robust determinant of corruption. Larger FDI inflows decrease national corruption.<sup>49</sup>

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<sup>47</sup> Yuko Kinoshita and Nauro F. Campos, "Why Does FDI Go Where it Goes? New Evidence from the Transition Economies", **Williamson Institute Working paper**, 573 (2003).

<sup>48</sup> Q. Li and A. Resnick "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries" **International Organization** 57 (Winter, 2003).

<sup>49</sup> B. F. Larrain and J. Tavares "Does Foreign Direct Investment Decrease Corruption?" **Cuadernos De Economia** 41(2004), pp. 217-230.

Busse and Carsten explore the linkages between political risk, institutions and foreign direct investment inflows by using different econometric techniques for a data sample of 83 developing countries and the period 1984 to 2003. They employed 12 different indicators for political risk and institutions in the empirical analysis. They found that the investment profile, internal and external conflict, ethnic tensions and democratic accountability are important determinants of FDI flows. Across different econometric models, the relative magnitude of the coefficients for these political indicators are largest for government stability and law and order, indicating that changes in these components of political risk and institutions are highly relevant for investment decisions of multinationals.<sup>50</sup>

## 5. Methodology and Variables of the Econometric Model

Scholars when applying econometric models use data collected by international organizations. However, institutional variables are not readily available. To meet the needs for an in-depth and exhaustively researched analysis of the non-economic variables such as potential risks to international business operations, several organizations created statistical models to calculate risks and backed it up with analyses that explain the numbers and examine what the numbers do not show. The result is a comprehensive system that enables various types of risk to be measured and compared between countries.

In this study, the effects of both macroeconomic and institutional variables on FDI inflows are analyzed in 21 emerging markets. The dependent variable is the FDI inflows as percentage of Gross Domestic Product. As explanatory variables, macroeconomic variables are GDP, GDP growth, and openness (Export+Import/GDP), and political and economic institutional variables are democratic accountability, government stability, law and order, ethnic tension, socioeconomic conditions, political rights, civil liberties, internal and external conflict. The institutional variables are from the PRS (Political Risk Service) group.

We should mention that, there is a high correlation between institutional variables and therefore; we made a factor analysis in order to make a group of institutional variables. According to factor analysis the variables are divided into two categories. The first variable GOV includes BQ (Bureaucratic Quality), CORRUPTION, EC (External Conflict), ET (Ethnic Tension), GS (Government Stability), IC (Internal Conflict), IP (Investment Profile), LO (Low and Order) and SC (Socioeconomic Conditions). These variables are from the PRS group. The second variable DEMOC includes PR (Political Rights), CL (Civil Liberties) and DA (Democratic Accountability). The variables PR and CL are from freedom house and DA from the political risk service.

We mainly estimated two equations for the two country samples to analyze the effects of both macroeconomic and institutional variables on FDI inflows. In first equation, only macroeconomic variables are used in the estimation. This is because, emerging economies are related with huge market sizes, high economic growth rates, and in the first equation we test whether macroeconomic variables have effect positively on FDI inflows or

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<sup>50</sup> M. Busse, and C. Hefeker “Political Risk, Institutions and Foreign Direct Investment”, **HWWA Discussion Paper** 315 (2005).

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not. In the following equations we add each institutional variable GOV and DEMOC one by one and at the end all explanatory variables are used in the estimation.

## 6. Definitions of the Variables

The first category of explanatory variables includes macroeconomic variables. The emerging economies are distinguished with their market sizes and economic growth performances which mean horizontal strategy should be prior motive for foreign investors. Therefore the first category includes market-size related variables. As stated in the previous chapters, market size is one of the most widely proven significant determining variables in FDI location. If foreign investors are looking to sell their product or service to the host country, the economic potential of the targeted region is of utmost importance. This will be measured by GDP. The variable is converted by IMF to international dollars using current prices. This measure should have a significant impact on FDI inflows because it indicates market wealth and purchasing power. The size of the host market affects the amount of FDI inflows. Large markets are more likely to attract FDI because of an expected stream of future returns, for which China is often cited as an example. Market size is expected to affect FDI inflows positively. Data are from the IMF.<sup>51</sup>

In addition to GDP, we use GDP growth as an indicator of economic development. Economic development should affect FDI inflows positively; hence, we include GDP growth as independent variable. Data are from WDI.<sup>52</sup> Openness indicates integration of a country into World Economy. It is estimated as exports plus imports, as a percentage of GDP and it is expected to be significant because it demonstrates the openness and trade abilities of the host country. The data (the share of trade in GDP) are from WDI.<sup>53</sup>

The second category of explanatory variables includes democratic accountability, corruption, religion in politics, external conflict, government stability, political risk. The aim of the political risk rating is to provide a means of assessing the political stability of the countries covered by *ICRG* on a comparable basis. This is done by assigning risk points to a pre-set group of factors, termed political risk components.<sup>54</sup>

Government Stability is a measure of the government's ability to stay in office and carry out its declared program(s), depending upon such factors as the type of governance, cohesion of the government and governing parties, approach of an election, and command of the legislature.

The external conflict measure is an assessment both of the risk to the incumbent government from foreign action, ranging from non-violent external pressure (diplomatic

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<sup>51</sup> IMF, World Economic and Financial Surveys World Economic Outlook Database April 2007 Edition.

<sup>52</sup> Ibid.

<sup>53</sup> The World Bank, **World Development Indicators** 2006.

<sup>54</sup> The minimum number of points that can be assigned to each component is zero, while the maximum number of points depends on the fixed weight that component is given in the overall political risk assessment. In every case the lower the risk point total, the higher the risk, and the higher the risk point total the lower the risk.

pressures, withholding of aid, trade restrictions, territorial disputes, sanctions, etc) to violent external pressure (cross-border conflicts to all-out war). External conflicts can negatively affect FDI in many ways, ranging from restrictions on operations, to trade and investment sanctions, to distortions in the allocation of economic resources, to violent change in the structure of society. The risk rating assigned is the sum of three subcomponents: war, cross-border conflict and foreign pressures, each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk.

Corruption within the political system is a threat, especially in the long-run, to foreign investment by distorting the economic and financial environment, reducing the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and introducing inherent instability into the political process.

Socioeconomic conditions indicator is an assessment of the socioeconomic pressures at work in society that could constrain government action or fuel social dissatisfaction. The risk rating assigned is the sum of three subcomponents; unemployment, consumer confidence and poverty, each with a maximum score of four points and a minimum score of 0 points. A score of 4 points equates to Very Low Risk and a score of 0 points to Very High Risk.

The institutional strength and quality of the bureaucracy is another shock absorber that tends to minimize revisions of policy when governments change. Therefore, high points are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services. In these low-risk countries, the bureaucracy tends to be somewhat autonomous from political pressure and to have an established mechanism for recruitment and training. Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions.

Democratic Accountability is a measure of how responsive government is to its people, on the basis that the less responsive it is, the more likely it is that the government will fall, peacefully in a democratic society, but possibly violently in a non-democratic one. The points in this component are awarded on the basis of the type of governance enjoyed by the country in question. For this purpose, the PRS group has defined the following types of governance: Alternating Democracy, Dominated Democracy, De-facto One-Party State, De jure One-Party state and Autarchy.

The essential features of an alternating democracy are: a government/executive that has not served more than two successive terms; free and fair elections for the legislature and executive as determined by constitution or statute; the active presence of more than one political party and a viable opposition; evidence of checks and balances among the three elements of government: executive, legislative and judicial; evidence of an independent judiciary; evidence of the protection of personal liberties through constitutional or other legal guarantees.

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The essential features of a dominated democracy a government/executive that has served more than two successive terms; free and fair elections for the legislature and executive as determined by constitution or statute; the active presence of more than one political party; evidence of checks and balances between the executive, legislature, and judiciary; evidence of an independent judiciary; evidence of the protection of personal liberties.

The essential features of a de-facto one-party state are: a government/executive that has served more than two successive terms, or where the political/electoral system is designed or distorted to ensure the domination of governance by a particular government/executive; holding of regular elections as determined by constitution or statute; evidence of restrictions on the activity of non-government political parties (disproportionate media access between the governing and non-governing parties, harassment of the leaders and/or supporters of non-government political parties, the creation impediments and obstacles affecting only the non-government political parties, electoral fraud, etc).

The identifying feature of a one-party state is a constitutional requirement that there be only one governing party.

The identifying feature of an autarchy is: leadership of the state by a group or single person, without being subject to any franchise, either through military might or inherited right.

In an autarchy, the leadership might indulge in some quasi-democratic processes. In its most developed form this allows competing political parties and regular elections, through popular franchise, to an assembly with restricted legislative powers (approaching the category of a de jure or de facto one party state). However, the defining feature is whether the leadership, i.e. the head of government, is subject to election in which political opponents are allowed to stand.

In general, the highest number of risk points (lowest risk) is assigned to Alternating Democracies, while the lowest number of risk points (highest risk) is assigned to autarchies.

Ethnic Tensions is an assessment of the degree of tension within a country attributable to racial, nationality, or language divisions. Lower ratings are given to countries where racial and nationality tensions are high because opposing groups are intolerant and unwilling to compromise. Higher ratings are given to countries where tensions are minimal, even though such differences may still exist.

Political rights enable people to participate freely in the political process, including the right to vote freely for distinct alternatives in legitimate elections, compete for public office, join political parties and organizations, and elect representatives who have a decisive impact on public policies and are accountable to the electorate. Civil liberties allow for the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state.

## **7. Methodology**

Before introducing the model, we should mention that, we make factor analysis for the institutional variables because of high correlation between variables. Table shows that

there are high correlations between the institutional variables. Using factor analysis these institutional variables can be explained in terms of a much smaller number of variables called factors. The purpose of factor analysis is to discover simple patterns between the variables and reduction of number of variables, combining two or more variables into a single factor.

Correlation coefficients for the institutional variables are as follows.

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**Table 3. Correlation Coefficients**

	BQ	CL	CORRUPTION	DA	EC	ET	GS	IC	IP	LO	SC	PR
BQ	1.000000	0.191915	0.515016	0.225025	-0.107945	0.142671	0.236891	0.299685	0.375934	0.434341	0.360166	0.233655
CL	0.191915	1.000000	0.119318	0.426849	0.005617	0.174548	-0.057716	0.183685	0.199479	0.097155	-0.065056	0.819856
CORRUPTION	0.515016	0.119318	1.000000	0.043519	-0.017622	0.098695	-0.067104	0.353648	0.005407	0.446861	0.272269	0.118729
DA	0.225025	0.426849	0.043519	1.000000	0.055017	-0.131056	0.007976	0.105541	0.167679	0.074570	-0.095679	0.487256
EC	-0.107945	0.005617	-0.017622	0.055017	1.000000	0.313560	0.122383	0.428738	0.113568	0.211235	0.079184	-0.022116
ET	0.142671	0.174548	0.098695	-0.131056	0.313560	1.000000	0.254139	0.505876	0.181445	0.337624	0.142547	0.062437
GS	0.236891	-0.057716	-0.067104	0.007976	0.122383	0.254139	1.000000	0.347773	0.558418	0.290391	0.183958	-0.042687
IC	0.299685	0.183685	0.353648	0.105541	0.428738	0.505876	0.347773	1.000000	0.342370	0.724515	0.393509	0.151614
IP	0.375934	0.199479	0.005407	0.167679	0.113568	0.181445	0.558418	0.342370	1.000000	0.281407	0.472897	0.180014
LO	0.434341	0.097155	0.446861	0.074570	0.211235	0.337624	0.290391	0.724515	0.281407	1.000000	0.377393	0.085435
SC	0.360166	-0.065056	0.272269	-0.095679	0.079184	0.142547	0.183958	0.393509	0.472897	0.377393	1.000000	-0.093226
PR	0.233655	0.819856	0.118729	0.487256	-0.022116	0.062437	-0.042687	0.151614	0.180014	0.085435	-0.093226	1.000000

Table 3 shows that there are high correlations between the institutional variables. Using factor analysis these institutional variables can be explained in terms of a much smaller number of variables called factors. The purpose of factor analysis is to discover simple patterns between the variables and reduction of number of variables, combining two or more variables into a single factor. In order to test if we could use factor analysis for this variable group we use Kaiser-Meyer-Olkin criterion. Table 4 shows the test statistics.

**Table 4. Kaiser's Measure of Sampling Adequacy**

	MSA
BQ	0.70133
CL	0.600318
CORRUPTION	0.661762
DA	0.692755
EC	0.646943
ET	0.680206
GS	0.616902
IC	0.709208
IP	0.636993
LO	0.785518
SC	0.670403
PR	0.624851
Kaiser's MSA	0.672526

Computed Kaiser's MSA is bigger than 0,5. It indicates that we can use factor analysis. We use maximum likelihood method for factor analyzing. Using Minimum average partial method we found 2 factors. Their factor loadings are as fallows;

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**Table 5. Factor Loadings**

	F1	F2
BQ	0.379052	0.293869
CL	-0.06446	0.850385
CORRUPTION	0.390044	0.178972
DA	-0.04662	0.505507
EC	0.371951	0.029676
ET	0.482225	0.141393
GS	0.418853	0.010083
IC	0.843928	0.273378
IP	0.384281	0.241965
LO	0.780781	0.195268
SC	0.508482	-0.02567
PR	-0.13068	0.954205

According to factor loadings the variables are divided into two categories. The first group of variables named GOV includes BQ (Bureaucratic Quality), CORRUPTION, EC (External Conflict), ET (Ethnic Tension), GS (Government Stability), IC (Internal Conflict), IP (Investment Profile), LO (Low and Order) and SC (Socioeconomic Conditions). These variables are from the PRS group. The second group of variables named DEMOC includes PR (Political Rights), CL (Civil Liberties) and DA (Democratic Accountability). The variables PR and CL are from freedom house and DA from the political risk service. The distribution of variables into the factors DEMOC and GOV are remarkably appropriate when the characteristics of institutional variables are considered.

We mainly estimated two equations for emerging markets to analyze the effects of both macroeconomic and institutional variables on FDI inflows. In the first equation, only macroeconomic variables are used in the estimation. This is because, emerging economies are related with huge market sizes, high economic growth rates, and in the first equation we test whether macroeconomic variables have effect positively on FDI inflows or not.

**Table 7. Impact of Macroeconomic Variables on FDI**

Dependent Variable: FDI_INFLOWS_GDP				
Method: Panel Least Squares				
Sample: 1984 2006				
Periods included: 23				
Cross-sections included: 21				
Total observations: 482				
	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.27572	0.414633	-3.07674	0.0022
GDP_CUR_IMF	0.003208	0.001216	2.638877	0.0086
GDP_GROWTH	0.072335	0.028287	2.557209	0.0109
OPEN	0.039963	0.004694	8.514082	0

As shown at table 7, the macroeconomic variables (current GDP, GDP growth and openness) have positive effect on FDI inflows in emerging markets as expected. For this regression equation the resulting Hausman chi-square test statistic is 7,1614 which is significant at %10 significance level. Hence we reject the null hypothesis and the random effect estimator is not consistent. In the following equations we add each institutional variable GOV and DEMOC one by one and at the end all explanatory variables are used in the estimation.

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**Table 8. Impact of Institutional Variable (GOV) on FDI**

Dependent Variable: FDI_INFLOWS_GDP				
Method: Panel Least Squares				
Sample: 1984 2006				
Periods included: 23				
Cross-sections included: 21				
Total observations: 482				
	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.14686	0.419231	-2.73564	0.0065
GDP_CUR_IMF	0.002781	0.001234	2.254105	0.0247
GDP_GROWTH	0.06745	0.028331	2.380783	0.0177
OPEN	0.039515	0.004687	8.430387	0
GOV	0.370115	0.198223	1.867163	0.0625

We first add the factor GOV which represents; BQ, CORRUPTION, EC, ET, GS, IC, IP, LO and SC. The factor GOV has positive sign as expected. In other words, low level of corruption and ethnic tension, minimum external and internal conflicts, government stability, a suitable investment environment, good socioeconomic conditions and finally the proper functioning of law and order led more FDI inflows to emerging markets.

**Table 9. Impact of Institutional Variable (DEMOC) on FDI**

Dependent Variable: FDI_INFLOWS_GDP				
Method: Panel Least Squares				
Sample: 1984 2006				
Periods included: 23				
Cross-sections included: 21				
Total observations: 482				
	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.14198	0.418994	-2.72552	0.0067
GDP_CUR_IMF	0.00258	0.001254	2.058071	0.0401
GDP_GROWTH	0.069342	0.028242	2.455334	0.0144
OPEN	0.039769	0.00468	8.496771	0
DEMOC	0.321501	0.164576	1.953515	0.0514

Second, we add the factor DEMOC which represents three institutional variables: DA, PR and CL into the equation. The estimation results are still as expected as seen from Table 9. In other words, it can be argued that an emerging economy with appropriate democratic environment in which political rights and civil liberties are protected, will receive more FDI inflows.

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**Table 10. Impact of Institutional Variables on FDI**

Dependent Variable: FDI_INFLOWS_GDP				
Method: Panel Least Squares				
Sample: 1984 2006				
Periods included: 23				
Cross-sections included: 21				
Total observations: 482				
	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.00418	0.423737	-2.36981	0.0182
GDP_CUR_IMF	0.002118	0.001273	1.664127	0.0968
GDP_GROWTH	0.064187	0.028282	2.269528	0.0237
OPEN	0.039298	0.004673	8.410256	0
GOV	0.383287	0.197664	1.939085	0.0531
DEMOC	0.331991	0.16417	2.02224	0.0437

Finally, we add both institutional variables GOV and DEMOC into the equation. When we look at the probabilities, both macroeconomic and institutional variables are significant at 10 % significance level.

### **Conclusion**

In this study, our results point out that the effect of macroeconomic indicators such as market size, growth rate, on FDI is positive. In addition, what this study suggests is that institutional variables such as; functioning of judicial system, government stability, investment environment, internal and external conflict and socioeconomic conditions have also significant impact on FDI in emerging markets.

The results of the study are encouraging in the sense that efforts towards raising the quality of institutions may help emerging economies to receive more FDI, hence help them to enjoy of higher GDP levels.

The findings presented in this study, when incorporated with the existing works on FDI, provide an explanation of the distribution of foreign direct investment across countries. The empirical results point to the importance of political and economic institutions for foreign direct investment.

The theoretical framework and the empirical study in this study reveal that the nature of the interaction between MNCs and each country is the result of a more complex set of factors than only market size or market related variables orientation. It takes place

within the host country's unique economic, social, and legal structures; it involves institutions.

Generally, legal infrastructures, including legal system development and enforcement, are generally weak in most emerging economies. Bribery and corruption are obviously more invasive in emerging markets than advanced economies. It is generally less difficult to enact and develop various laws, but political, social, historical or cultural factors often impede the implementation and enforcement of these laws. The roles of law and judicial systems differ among countries. The gap between the law on the books and the law in practice can be vast. Legal standards tend to be ideals, not necessarily achievable.

A stable, reliable, business climate will lower costs, thereby encouraging FDI. Avoiding problems with regulatory, bureaucratic and judicial hurdles, property rights, enforceable contracts, performance and content requirements, or bribe payments will be seen as positive because they reduce risk and uncertainty. Basically, the more obstacles that companies perceive they will have to face in a host country, the less attractive it becomes. The ability to communicate, to access information and to transport internally is useful to investors because they can reduce costs of developing the infrastructure necessary to them.

Then the key to economic growth, to attract higher levels of FDI is finding the right institutional framework that will unlock a nation's wealth potential.

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