The Impact of Transparency on Foreign Direct Investment

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Abstract

Non-transparency is a term given in this paper to a set of government policies that increase the risk and uncertainty faced by economic actors (foreign investors). The higher in risk and uncertainty stem from the presence of bribery and corruption, unstable economic policies, weak and poorly enforced property rights, and inefficient government institutions. Our empirical analysis shows that the degree of non-transparency is an important factor in a country's attractiveness to foreign investors. High levels of non-transparency can greatly retard the amount of foreign investment that a country might otherwise expect. The simulation exercise presented in the statistical part of this paper reveals that on average a country could expect 40 percent increase in FDI from a one point increase in their transparency ranking. Pari passu, non-transparent policies translate into lower levels of FDI and hence lower levels of welfare and efficiency in the host country's economy. A nation that takes steps to increase the degree of transparency in its policies and institutions could expect significant increases in the level of foreign investment into their country. This increased investment translates into more resources, which in turn increase social welfare and economic efficiency.

• **JEL Classifications:** F02, F13, F21, F23, M14

• **Key Words:** Foreign Direct Investment, Transparency, Corruption, FDI Modeling

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I. Introduction

The issue of transparency in economic and business decisions has become one of the most talked about and novel topics in economics and finance and among businessmen and policy makers. Surely, economists and businessmen as well as government officials have always been aware that access to information may be impeded or costly or that business practices can differ from country to country - for better or worse. Nevertheless, it is only in recent years that transparency has become a major issue. The lack of transparency has been used by some observers as an argument towards redirecting foreign aid among countries. For example, in their study of foreign aid flows, Alesina and Weder (1999) show that foreign aid is not necessarily offered to the least corrupt governments. They further argue that donors should rethink their aid policies if they are truly serious about encouraging "good governance".

The lack of transparency has been also tied to the financial turmoil first witnessed in Mexico and later in Asia and other parts of the world. Following these financial crises, it is now widely recognized that the availability of timely and complete information is crucial in order to avoid the kinds of violent instability of financial markets that we have witnessed in recent years. It is no surprise, therefore, that M. Camdessus, the Former Managing Director of the IMF, thinks of transparency as the "golden rule" former of the new international financial system.[1] Transparency has been proposed for the agenda of multilateral negotiations such as those in the OECD, and pursued as a powerful objective of influential non-governmental organizations such as Transparency Interna-tional. Transparency in economic policy-making now also figures as an important condition for lending by international financial institutions. In sum, "transparency" has become the "buzz-word" of modern politics and economics.

In this paper we shall address one issue that has so far not received much attention in the discussion - the impact of transparency (or, rather, the lack of it) on flows of foreign direct investment (FDI). As we shall argue further below, there are strong reasons to believe that transparency in economic policy-making and in the activities of government institutions is vital in attracting foreign investment. If so, one would expect that countries with more trans-

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[1]Taken from his speech at the 24the Annual Conference of the International Organization of Securities Commission in Lisbon, on May 25, 1999. Also reported in IMF Survey, June 7, 1999.

parent trade and investment regimes will attract more FDI than those that are plagued by the perception of bureaucratic inefficiencies and the existence of corruption and other related problems.

The main purpose of this paper is to evaluate the effects of transparent policy regimes on FDI inflows. In order to do so, we have developed a simple econometric model which we have tested with the help of standard statistical methods. The tests confirm our hypothesis that more transparent policy regimes indeed act as a strong incentive for foreign investors and vice versa.

The term "transparency" may be even currently somewhat "overused". It is often put forward out of context or without a specific meaning. This makes discussions about transparency too general and limits the scope for policy recommendations. We shall try to avoid committing the same error. Before plunging into the empirical analysis, we shall, therefore, examine the concept of transparency in more abstract terms. We shall first discuss various aspects of transparency as they are related to economic policy-making. In addition, we shall examine the reasons why transparency of policy regime is particularly important for foreign investors.

Why do we focus on FDI ? The answer is very simple - FDI has become an increasingly more important factor of economic growth. This is reflected in the trend over the last several years as countries have increased reliance on FDI. Between 1986-1989 and in 1995 the rate of FDI grew more rapidly then world trade in goods. Between 1973 and 1995 the value of FDI multiplied by more than 12 times, from $25 billion to $315 billion, while the value of commodity exports multiplied by about eight and a half times, from $575 billion to $4900 billion.[2] In many cases the value of FDI flowing into a country exceeds the level of official government aid to that country.[3] In brief, while the value of international trade in goods is still far greater than the value of FDI, FDI plays an increasingly important role.

Developing and transition nations have a particularly strong interest in attracting foreign capital. Domestic savings are often insufficient in these countries to finance their investment needs. This capital shortage affects both public and private investment. The Asian Development Bank predicts that the demand for infrastructure investment in Asia alone will reach $150 billion annually by 2010.[4] The World Bank forecasts the need for investment between

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[2]All data come from Drake (1998)
[3]Ibid.

$1.2 and $1.5 trillion in infrastructure development in developing East Asian countries.[5] Foreign investment is also a key component of privatization schemes in transition economies in Central and Eastern Europe. The privatization process in the Czech Republic, Hungary, Poland as well as in countries like Slovakia, Bulgaria, and Romania, has actively pursued foreign capital.[6]

We shall organize the paper into 7 sections. The following section II introduces the topic by defining the range of issues which represent the origins of non-transparent economic policies. In the same section we shall also review the broad effects of non-transparent policies. In section III we shall asses the importance of transparency specifically for FDI. Measures to improve transparency will be discussed in section IV. Section V represent the empirical part of this paper. It includes a discussion of methodology and provides a summary of the empirical findings, with more detail provided in the statistical appendix. Policy implications of our findings are discussed in section VI and conclusions are presented in section VII.

II. Scope and Origins on Non-Transparent Economic Policies

The term transparency of economic policy is a catchall phrase that refers to the clarity and effectiveness of activities with impact on public policy. In the economic literature, the discussion about transparency has been mostly focussed on two key topics - corruption and bribery and on protection of property rights, but the issue is much larger as we shall now argue. Moreover, the literature has mainly been concerned with the activities of governments and their institutions. Even though we shall limit our empirical part of the paper to the same agent, this too is an oversimplification.

Let us start by considering the question of transparency in economic policy-making of governments. The lack of transparency has for us five different origins. First, economic policy - making will be seen as non-transparent if it is subject to *corruption and bribery*. By definition, bribery involves illicit payments which are never "advertised", or made otherwise public even though

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[4]Quoted in Kamata (1997).

[5]Ibid.

[6]This topic has been discussed in a number of publications. For a more recent piece see, for example, Weimer (1997).

corruption may be sometimes so widespread that "everyone knows". Bribery is non-transparent not only because it is normally illegal but also because the non-transparency strengthens bargaining positions of the beneficiaries from these illicit payments. The impact of bribery can be economically highly distortionary. For example, in his work on the effect of corruption on government activities Tanzi shows that corruption distorts public investment (Tanzi *et al.*, 1997 and Tanzi 1999). Similar point is made by Mauro (1995) and (1996) who investigates the impact of corruption on various government expenditures and on public and private investment respectively. Corruption can also have highly detrimental effects on the country's distribution of income and worsens poverty (Gupta 1998). Corruption and bribery have been also found to have an adverse impact on capital accumulation and may even threaten stabilization programs supported by the IMF (Asilis *et al.*, 1994). Further evidence of serious distortions has been provided in numerous World Bank studies such as those of D. Kaufman *et al.* (1999) as well as by other researchers.

The second important element of non-transparency arises in the area of *property rights* and their protection within a given country. The lack of copyright protection, the existence of patent infringement and lack of enforcement of contracts are all examples of what constitutes poor protection of property rights. The protection of property rights is vital for firms to pursue new investment and research in order to ensure that firms will see return from their investments[7]. Without this profit incentive there is little motivation to take risks and invest. In addition, weak property rights result in the distribution of assets as common property, and common property situations may result in sub-optimal allocation of assets.[8] This could be a particularly serious problem for countries that are undergoing fundamental changes of their institutions and, in general, for developing countries. The questions of property rights have been examined extensively in the literature including issues related to investment behavior of firms. Developing countries are particularly susceptible to problems related to the protection of intellectual property rights. For example, a recent study of National Economic Research Associates shows that developing countries benefit a great deal from instituting a stronger protection

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[7]Again, a wide variety of literature exists on the impact of property rights protections on different aspects of economic development. See, for example, North (1987).

[8]See, for example, Weimer and Vining (1992).

of intellectual property rights.[9] A study of Weimer (1997) also makes essentially the same point when it argues that political systems can have significant impact on the credibility of commitments on property rights, with a special focus on post-communist nations.

The third and fourth aspects of non-transparency relate to the level of *bureaucratic inefficiency* within the government and *poor enforcement of the rule of law*. These two factors can pose severe barriers to business. If the quality of government service is unpredictable, companies' exposure to additional risks is increased. Moreover, their ability to cover against these risks is impeded due to the unpredictable nature of government service. OECD (1997b), for example, shows that bureaucratic inefficiency and weak rule of law impede economic activities by imposing additional costs on economic agents. Delays in licensing, the inability of the courts to enforce contracts and the capricious and arbitrary enforcement of rules and regulations all reduce economic efficiency and effectiveness.[10]

Finally, the fifth origin of non-transparent economic policies has a great deal to do with the conduct of economic policies *per se*. Economic policies are likely to be treated as non-transparent if they are subject to unpredictable *policy reversals*. These policy reversals are particularly damaging in privatization deals and whenever foreign investors are involved. Consider, for example, the case of privatization in country *X* in which the government summarily cancels decisions of the previous government to privatize the country's industry. The reaction of foreign investors to the policy reversal is likely to put the country concerned "off-limits" for foreign investors. Unfortunately, this is not a hypothetical case as we have seen in recent years in a number of countries which range across different regions and cultures such as Indonesia, Nigeria or Slovakia. In each one of these countries, the lack of transparent policies has been suggested to be one of the main reasons why foreign investors have demonstrated extreme caution to invest and for capital flight. This reflected a growing suspicion of investors about the intentions of governments concerned

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[9]Developing countries are likely to be tempted to avoid international commitments on intellectual property rights. They often see them as a barrier to the access to modern technology and thus to economic development. For more discussion see, for example, Rapp and Rozek (1990).

[10]The law and order issues can become particularly troublesome for companies. Primarily this represents the suppression of laws for political reasons or the ability of the government to overturn court decisions that it does not agree with. This poses severe constraints on the credibility of contract law and property right protections.

and their commitments to policies in the countries concerned.

Related example of non-transparent economic policies is one in which economic decisions are perceived to be arbitrary. Absence or poorly executed tenders for sales of assets is a relevant case in point. It is clear that for tenders to be perceived to be transparent they must be based on rules, and these rules must not be ambiguous and, once accepted, they must not be changed except in exceptional circumstances. Moreover, if exceptions are to be permitted these must be well understood and known to all participants in advance.

Who is guilty ? But the issue of transparency is, of course, much wider. Bribery and corruption, for example, are not necessarily the "privilege" of governments only but they have "infected" even *private businesses* in some countries. Moreover, lack of transparency has been criticized in the case of institutions that play an important role in the provision of public information - and thus in the conduct of public policy - and they are not government institutions. Take the case of rating agencies that provide *credit ratings* of governments, private businesses and other institutions. These agencies play a crucial part in influencing investors' decisions with their credit assessments even though, as some would argue, they are not subject to the strict scrutiny of markets or regulators. In recent discussions of the Basle banking criteria, *Financial Times* complained that "markets and regulators should keep a closer eye on the record of rating agencies and demand greater transparency from them"[11].

International organizations have also recently become targets of public criticism. Following the "Mexico crisis", the International Monetary Fund has been under attack by their critics about its practices of keeping certain information out of the public domain or about not providing information faster to the public[12]. As a result of this criticism, the IMF has been revising its policies concerning the release of economic and financial information on individual countries in order to make its own practices and countries' economic conditions more transparent. The pressure is also on other economic and financial multilateral institutions. For example, a recent meeting of a com−mittee on technical barriers to trade of the World Trade Organization has suggested that "information regarding current work programs and proposals

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[11]E. Luce in Financial Times, June 7, 1999

[12]In all fairness, the Fund had a very sensible explanation at the time - that provision of sensitive information could heavily influence the markets.

(on international standards) ... should be made easily accessible and comprehensible to all interested and related parties"[13].

It must be also recognized that the question of transparency can go even beyond individual economic agents - such as firms, governments, public policy institutions or even individual governments. Take, for example, the case of the ongoing discussions about international financial "architecture". One of the recent proposals was to ensure that the International Monetary Fund should be in the position "to give moral and financial support to countries imposing capital controls or suspending debt repayments"[14]. The idea is not to help countries in distress but also "to guide expectations by providing a transparent and timely explanation of why a particular approach to a private sector involvement was taken"[15]. Clearly, for this proposal to be workable, this can only be if it is agreed by the major shareholders of the IMF. This cannot be a proposal of a single government but it must be the outcome of international cooperation. The fact that the proposal was indeed made by the finance ministers of the Group of Seven countries gives it a far better chance of acceptability.

In brief, the concept of transparent economic policy-making is very broad and needs to be considered in its entirety if economic policies are to be seen as truly transparent. Nevertheless, our own treatment of the subject will have to be narrower. We shall only consider those aspects of transparency that relate to government policies and of activities carried out by government institutions. The reason is a matter of expediency rather than of theory. Our choice has been to some extent determined by the constraints of our empirical tests which in turn have been influenced by the availability of data.

In addition, for many reasons governments tend to be most implicated as the origin of corruption and in the lack of transparency. Economic policies and activities of government institutions can be perceived as transparent if the actual policies reflect their actual design in that they transmit the intended messages and signals. Similarly, economic institutions can be treated as transparent if their activities exactly conform to the stated objectives of these institutions and they carry out activities fully consistent with these objectives. Moreover, for economic policies and government institutions to be transparent

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[13]See WTO, G/TBT/W/113, 15 June 1999.
[14]See Financial Times, June 15, 1999, p.5
[15]Ibid.

it must be, of course, assumed that economic policies are clearly formulated, and that government institutions do have clear objectives and mandates. In brief, governments affect transparency through activities that they themselves control - regulatory activities, public sector policies and other. Thus, our focus on governments is given partly by technical reasons and partly by the important role of governments as an economic agent.

III. Why is Transparency Important for FDI?

Transparent economic policies are vital for foreign investors, and the reasons are several. The first reason is that non-transparency imposes *additional* costs on businesses. These additional costs arise as firms have to tackle the *lack of information* that should have been provided by the appropriate government department in the implementation of its policies and in the activities of government institutions. For example, firms bidding for a state asset expect to receive full information from the government about the company to be privatized. Any set of information that falls short of the expectation of the bidders will have to be supplemented - at extra costs, and the latter are typically incurred by the bidders.

Additional costs are also incurred because of corruption - another element of non-transparency identified above. In many countries, bribery is illegal[16]. Bribery raises, therefore, the risks and the costs of non-compliance, and the companies will only take the risk if the rewards are sufficiently high. Corruption can indeed be very costly to firms. By way of example, bribes are estimated to have accounted for 7 percent of revenue of firms in Albania and Latvia in mid-1990's and in Georgia the corresponding figures was even higher − 15 percent[17]. This process would lead to an investment selection that often has little to do with choices based on *bona fide* project appraisal but rather to projects selected on the basis of contacts, pressures, rent-seeking alliances etc. Moreover, the majority of law-abiding companies will typically avoid doing

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[16]Countries commonly require licenses for investment, limit the level or degree of foreign ownership in capital assets or otherwise impose restrictions on the entry and activity of foreign actors in the markets. Government bureaucracy controls these types of restrictions and regulations. These controls provide easy avenues for corruption. This can take the form of bribes for import or export licenses, access to foreign currency or loans.

[17]These figures come from Kaufmann, Pradhan and Ryterman (1999). The estimates were obtained from detailed survey of firms in the respective countries.

business in countries in which bribery is an inseparable part of business. In brief, the existence of strong legal provisions against bribery and their effective enforcement will go a long way towards inducing FDI flows.

The second reason why transparent economic policies are important for FDI is because they facilitate *cross- border mergers and acquisitions*. When firms decide to acquire companies abroad, they will often have to have their acquisitions approved by the Monopoly Commission or its equivalent in the host (i.e. foreign investment receiving) country. However, the practices of these competition commission often vary from country to country and from region to region. For example, Neven, Papandroupulos and Seabright (1998) argue in their study of the European competition policy that the Competition Commission of the European Union enjoys high level of discretion with very little transparency. It is perhaps, therefore, not surprising that we have so far witnessed little of cross-border mergers and acquisitions within the European Union.

The third reason is closely related to the previous discussion of competition policies. Foreign investors require transparent *protection of property rights*. As we have argued above, investors generally require that their property be protected and that the protection be transparent. What holds for investors in general holds, of course, for foreign investors in particular. This conclusion is intuitive but it also has a strong backing from business attitude surveys and from empirical literature such as the study of Rapp *et al.* (1990) who find that effective protection of intellectual property rights is strongly correlated with inflows of foreign investment.

The fourth argument for transparent economic policies is that they positively influence business attitudes. Virtually all surveys of business attitudes convincingly show that companies base their decisions to invest abroad on their perceptions of what economists like to call "fundamentals"[18]. The latter include macroeconomic conditions such as low and predictable inflation, prospects of fast economic growth, healthy balance-of-payments position. They will typically also include factors such plentiful and relatively skilled labor force, access to natural resources, efficient infrastructure etc. Furthermore, and most importantly in the context of our paper, investors typically seek clear, open and predictable economic policies that minimize the risks of unpleasant and costly surprises. Open trade and investment regimes are

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[18]See, for example, Hoekman and Saggi (1999) for a review of the literature.

particularly powerful instruments to attract investments in general and foreign investments in particular[19]. Clearly, transparency of economic policies and government institutions figure prominently on the minds of businessmen and in the meetings of corporate boards of multinational companies.

The absence of comprehensive and symmetrical legal provisions concerning business practices has a number of effects for companies. One of the most serious effects is arguably their impact on the competitive position of firms which may differ among countries as a result of these differences. For example, US Federal law prohibits U.S. firms from using bribery to gain access to foreign markets. By contrast some European countries allow firms to treat bribes paid as deductions in calculating their tax liabilities. This asymmetry of rules poses a disadvantage for U.S. firms. Therefore, the elimination of corruption is an important issue for U.S. firms as a means to level the playing field.

Finally, there is another, and perhaps the most important reason why economic policies must be transparent if countries can establish favorable conditions for capital inflows. The reason is countries' policy performance and transparency are monitored by outside agencies which have a crucial impact on decisions of foreign investors. These agencies include the IMF and various private credit rating agencies. Their influence is different - the IMF provides a "credit of approval" of sound economic policies while credit rating agencies evaluate the credit risk of the country concerned. Their similarity rests on the fact that adverse judgements on government policies in a given country will typically lead adverse perceptions by foreign investors of that country. As frivolous as it might sound it is a well known fact in the business community that foreign investors base their investment decisions on credit assessments and country rankings established by well known credit rating agencies. The fact that we shall also heavily rely on country rankings in our empirical part further below is not, therefore, an entirely academic exercise but one that is strongly derived from the reality.

IV. Measures to Improve Transparency and the Role of WTO

Given the diversity of non-transparency elements, the measures required to

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[19]As we shall argue in the following section, there is a high correlation between a country's exposure to international trade and the size and the quality of government services. Strong empirical evidence about the positive contribution of liberalization on FDI inflows can be found in Selowsky and Martin (1997).

address the specific issues will vary from case to case. For example, bribery and corruption will require quite different measures than those problems that are related to bureaucratic inefficiencies or protection of property rights. Each case of non-transparency would, therefore, have to be discussed separately. We do not propose to discuss these measures in any detail but thought it important to raise those issue that will require priority attention of policy makers in the future.

Elimination of corruption and bribery will sometimes call for relatively straightforward and simple solutions such as a reduction of government interventions in markets. On the one hand, this could include, for example, the elimination of price controls, reduction of regulatory activities of governments to only those activities that are absolutely necessary, elimination or a reduction of licensing schemes etc. On the other hand, this may also call for measures that are far more complex. These may include measures to change business and bureaucratic attitudes; for example, corruption in some countries may be so culturally engrained that it may be regarded as socially acceptable. Clearly, elimination of corruption will have to be handled with care and sensitivity and will require much more than an act of legislation.

Protection of property rights can be also increased in a variety of ways. Protection of intellectual property rights can be improved by the adoption of the appropriate legislation in countries in which such a legislation is still lacking. The legislation should be consistent with the internationally accepted standards and conventions. Otherwise, countries which export products and services that are subject to intellectual property rights will be reluctant to make these products available abroad. Pari passu, foreign investors must also be protected against nationalization and other forms of expropriations - the most blatant forms of violation of property rights. Last but not least, commercial contracts must be backed up by enforceable laws.

Administrative inefficiency is probably today the most frequently observed deterrent to FDI. Discretion rather than a system based on rules, "red tape", lack of skilled personnel, poor public pay policy, overstaffing, these all just some examples of the origins of administrative inefficiencies. Many of these problems can be overcome by the adoption of measures and systems that increase transparency and reduce arbitrariness of government decisions. An important road to take is to adopt a system based on well designed tenders for government procurements and public investments, public offerings and other competitive measures for privatization of state assets, solid pay for public

officials or other measures as the specific cases may call for.

The next important question is whether the measures should be confined to national legislation or whether countries should be encouraged to enter into international obligations. Probably both will be necessary. Domestic legislation is obviously crucial and must provide the basis for all activities of firms and governments. However, an agreement on international investment has been gaining support among the proponents of free trade. A common belief is that a multilateral agreement on investment will generate an increase in FDI for the member nations. This is, of course, only a necessary but not a sufficient condition but what the agreement will do is to provide a framework of transparent conditions to facilitate the movement of capital. This argument is based on two simple ideas. First, a foreign investment law such as an international agreement will make countries' legal framework much more transparent than foreign-investment related domestic pieces of legislation. Second, international commitments and laws are in many countries above the national laws - phenomenon frequently observed in relatively less developed countries[20]. Even though the push for negotiating a multilateral agreement continues to be resisted[21], the merits of such an agreement in terms transparency are now increasingly well understood.

A multilateral approach also means greater trade and investment openness which in turn means less corruption. In their study of trade and investment regimes, Selowsky and Martin (1997) found that trade and investment openness have a positive impact on the reduction of corruption. Open trade and investment regimes are conducive to FDI inflows for different reasons. Clearly, the presence of international agreements − multilateral and regional agreements on trade as well as regional agreements on foreign investments - has been a major factor. Moreover, open trade and investment regimes, supported by such agreements, can have a significant impact on the size, structure and the performance of government sector, which can facilitate the expansion of trade and investment. For example, Rodrik (1998) finds that an economy's exposure to international trade is positively correlated with the size

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[20]For more discussion see Drabek (1998).

[21]The resistance mainly comes from developing countries, which fear that they are not yet ready to face competition of multinational companies from developed countries. Nevertheless, the current reluctance is also shared - albeit with less vigor - by some developed countries (e.g. USA). The position is also defended by some researchers who call for a consolidation of the existing Uruguay Round agreements before tackling a MAI. See, for example, Hoekman and Saggi (1999).

of its government − a phenomenon that he explains on the grounds of useful roles performed by governments in supporting international trade activities of the private sector. Brunnetti and Weder (1999) argue in their recent paper that openness also leads to other positive political and economic effects that are relevant for the transparency of government activities - better basic government services such as well-enforced rule of law, security of property rights and reliable bureaucracies[22]. By definition, trade liberalization increases competition in domestic markets which, in turn, puts pressure on domestic firms as well as government to increase the quality of their services. Increased market penetrations by importers and foreign investors means that they demand better services, more information and , in general, a level playing field[23].

The step towards a multilateral agreement on investment would be relatively short. The reason is that foreign investment is already subject to a number of WTO agreements and WTO-related rules[24]. These include General Agreement on Trade and Services (GATS) which recognizes that the supply of many services to a market is difficult or impossible without the physical presence of the service supplier. Thus, the agreement allows commercial presence of one member in the territory of any other Member country. Foreign investors are also protected through the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) whereby each WTO member accords in its territory protection of intellectual property rights of nationals of other WTO countries. Third is the Agreement on Trade- Related Investment Measures (TRIMS) which identifies investment measures that are inconsistent with the GATT - essentially local content and trade balancing requirements[25]. Fourth is the Agreement on Subsidies and Countervailing measures that defines the concept of "subsidy" and establishes the disciplines on the provision of subsidies. Fifth is the Plurilateral Agreement on Government Procurement that states that there

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[22]See reference in Introduction above.

[23]The same points are also made in OECD (1997a) and (1998) which provides a discussion of these issues.

[24]For more details, see WTO (1996), pp. 69−73.

[25]This agreement is already effectively used by members for the protection of their companies. For example, the United States government has recently requested consultations with the Government of India about the latter's measures affecting trade and investment in the automobile sector. The measures require manufacturing firms to achieve a certain local content and a neutralization of foreign exchange by balancing value of certain imports to a value based on the previous year's exports. These measure relate to Article 8 of TRIMs. Similar issue have been raised with Indonesia. Following the ruling of the Dispute Settlement Board, the Indonesian government has been already taking measure to repeal the original program.

be no discrimination not only against foreign products but also against foreign suppliers including domestic suppliers of foreign affiliates. Finally, foreign investors are affected by provisions of the Uruguay Round Agreement on Dispute Settlements.

Would the multilateral approach reduce corruption ? What we argue in this paper is that a multilateral agreement on investment is likely to lead to a further reduction in trade and investment barriers. This, in turn, will be conducive to more transparency and less corruption. We are not suggesting that the agreement would have to specifically target corruption as one of its objectives. This may or may not be the case. What we are only suggesting at this stage is that less corruption would most likely be a by-product of a transparent multilateral agreement on foreign investment.

It is not clear at present time which way the pendulum will eventually move. Nevertheless, the pressure for an international agreement that would address the transparency issue is growing even among the governments. By way of one example, a recent meeting of APEC on the New Millenium Round has advanced a new initiative ".... to strengthen the functioning of markets" and concluded with a proposal for a framework that focus on such areas as greater transparency (e.g. transparency in government procurement), improved corporate governance and electronic commerce"[26]. In this context, it seem evident that the discussion about the usefulness of a MAI would be enhanced and negotiations about a future MAI moved forward if we had a better feel about the extent to which the lack of transparent regime towards FDI impede the flows of FDI into host countries. To repeat an earlier argument, it would be useful to simulate the conditions that might be created by a MAI, and see how much they might positively affect flows of FDI. This is a subject to which we shall turn in the next few sections.

V. Measuring the Impact of Transparent Regimes on FDI Flows

A. The Model

As we have argued above, the process by which governments can make their FDI regimes non-transparent is quite varied. For the purpose of this paper, non-transparency will be defined as government policies or structures that impede the efficient flow of direct investment between countries by imposing implicit

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[26]See Barshevsky on APEC, Global Trade Liberalization; in USIS Geneva, Daily Bulletin, 1 July 1999.

costs and information asymmetries on the actors in the international capital market. Thus, government policies that condone or even permit corruption, that do not provide for an effective protection of property rights, that are implemented by inefficient bureaucracies and that are highly unstable will generate non-transparent regimes that will retard the flows of investment. This lack of transparency will impede the ability of foreign firms to participate in a nation's market.

In theory, firms should be less likely to enter a non-transparent country because of the increased risks, uncertainty and costs of doing business. The analogous situation is that countries that maintain and promote transparent policies and structures will attract more investment. Since this hypothesis is about observable action, it should be possible to quantitatively test for it. Therefore, a regression analysis model is used to test this hypothesis.

The questions that we want to answer in this paper are the following: "Does 'transparency' matter as a factor influencing FDI decisions ?" "If so, how ? Can we estimate the effects of better (higher) transparency on FDI inflows?" We hypothesize that non-transparent regimes inject uncertainty and information asymmetries into the international capital markets. Under non-transparent conditions, investors will require, *ceteris paribus*, a proportionally greater financial return to compensate for their higher risks. Without the extra costs of non-transparent regimes, the flow of FDI would be different. *Pari passu*, a country's need for investment may be more acute than that of its neighbor, but, due to its non-transparent investment regime, FDI flow to the more transparent market. Once again, FDI are not necessarily earning the best possible returns. It should follow, therefore, that countries that improve the transparency of their policy regimes should also see an increase in foreign investment in their countries.

If this hypothesis is correct then analysis of investment flows should show this. The econometric model presented in this paper is designed to test this hypothesis. The model will be described in the following section.

In order to test our hypothesis, we need to develop a general model of foreign investment behavior. In other words, we need a model of the market for international capital investment. Since transparent policies are expected to have a significant impact on the level of foreign investment, the degree of trans−parency must be parameterized in the model.

We shall hypothesize that foreign investment inflows depend on the degree of

transparency, the level of economic activity in the host country, the level of interest rates, inflation and exchange rate changes in the host country and on the level of openness of its trade regime. To put it more simply,

 (1) $FDI = f\,(T,\,Y,\,r,\,i,\,ER,\,TR,\,C)$**,**

where

  T = transparency
  Y = economic growth
  r = interest rate
  i = inflation
  ER = exchange rate changes
  TR = openness of trade regime
  C = country dummy

We expect transparency, economic growth, exchange rate stability and open trade regimes to be positively related to FDI. In contrast, we expect both interest rates and inflation to be inversely related to FDI.

The mathematical expression of our model is

 (2) $FDI/GDP = \alpha + \beta_1 T + \beta_2 Y + \beta_3 r + \beta_4 i + \beta_5 ER + \beta_6 TR + \beta_3 C + \mu$

Where μ is a random term.

It is clear that the model is simplified. For example, we have not allowed for the impact of different technologies and their sophistication on investment choices. Nor have we specifically considered home-country factors such as legal treatment of corruption practices of multinational firms in foreign countries. We are aware that host country legal provisions for joint ventures and wholly-owned subsidiaries may also influence investment decisions of multinational firms[27]. However, it is also evident that the corresponding extension of the model would most likely be counter-productive as the degrees of freedom would be reduced. *Pari passu*, we are confident that the impact of these factors is adequately treated in the model by the "country" and "trade openness" variables.

B. Methodology

Estimating the above model can pose significant technical difficulties. There

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[27]See, for example, Smarzynska and Shong-Jin Wei (2001).

are two hurdles that are especially commonplace in macroeconomic models - endogeneity and omitted variable bias, both of which were encountered in our estimations. This means, above all, that it may be difficult to separate the impact of different exogenous variables in the model. In real life many actions are occurring simultaneously. In addition, it is often difficult to unambiguously identify the factors that are causing the observed outcomes. In the case of our estimations, for example, economic theory maintains that investment is a major factor of GDP growth. Normally, as investment increases, GDP growth also increases. Thus, investment causes GDP growth. At the same time, economic theory also tells us that rapid growth of GDP can attract investment - domestic and foreign. The faster economic growth, *ceteris paribu*s, the greater the investment needed to maintain the growth at a sustainable rate. A high rate of growth of GDP signals increased market opportunities that attract more firms, which generates more investment. In this case, high GDP growth causes increased investment. The relationship between GDP growth and investment is, therefore, symbiotic and occurs simultaneously. To put it differently, it is very difficult to determine causality. The statistical result in the presence of endogeneity is a biased estimate and inconsistency. As a result more care must be exercised in the development and estimation of the model. The specific processes and techniques used to deal with this problem are discussed below.

The second problem is the likely existence of omitted, but relevant information. Many factors come into play when a firm makes a decision. As a result of the large and complex nature of economic processes, it is almost impossible to fully account for or quantify all the factors. The statistical result in the presence of omitted variables leads to what is known as omitted variable bias. In practice, this means that the impact of the factors not included in the model are captured in part by the other factors in the model. The estimated effects capture both the impact of the variable in question and the variables not included in the model.

As noted above, additional variables are needed to capture the economic conditions of the country that could attract foreign investment in addition to real GDP. The annual average of interest rates for each year is included as a measure of the opportunity cost of capital. A variable measuring the fluctuation of the national currency to the U.S. dollar is included as a proxy for exchange rate stability. A country with an unstable currency is likely to pose more risk and uncertainty and thus be less attractive. The relationship between

the U.S. dollar and the national currency is used because real effective exchange rate measures are not available for many of the countries in the model. An indicator variable is included to indicate whether a nation belongs to any treaty covering investment. This variable is mostly an indicator for bilateral investment treaties with the US. These agreements may indicate a general openness of a nation's investment policy to foreign firms. A country that is a member of multi- or bilateral investment treaties is considered to have a more open trade regime. Furthermore, while all monetary variables are in real terms, the actual inflation rate is included as a proxy for perceptions of the financial soundness of the economy. The last variable included is an indicator variable for each of the nations in the sample. This is included to account for country specific factors that would otherwise not be accounted for in the model. Such a variable will capture effects that are not attributed to the other variables and are specific to that particular observation.

The level of investment in each country is normalized by dividing FDI by the country's GDP. This allows us adjust the level of investment for the size of the country's economy. This transformation is useful for two reasons. First, it allows for more direct comparison between countries. Simply comparing the levels of investment in the US versus that of, for example, Botswana is not very useful because of the extreme difference in the size of the economies. Secondly, the size of a country's GDP is likely to be relevant for the amount of FDI the country receives. Simply put, a larger economy has more opportunities for investment. If GDP size were to be included as an independent variable, it would likely suffer from the same statistical problems as GDP growth. Thus, this transformation allows to take the market size into account in the model, but avoids the problem of endogeneity.

As previously mentioned, the possible existence of endogeneity and its attendant bias and inconsistency pose some difficulties. As a result two different forms of statistical models were employed. The standard regression model employed is an OLS regression model. This form imposes the fewest structures on the data and, barring the existence of endogeneity, returns the most accurate, unbiased estimates. However, this model form cannot account for the potential presence of endogeneity. Therefore, it is necessary to also utilize a second statistical model – the Two-stage - least squares (2SLS) regression model - that can account for the presence of endogeneity. The effectiveness of such model in removing the bias depends on the structure of

the model. This statistical model attempts to eliminate the bias by finding a proxy for the variable causing the endogeneity. The key to the selection of such a proxy, or instrumental variable, is that it must be highly correlated with the variable causing the endogeneity, but be unaffected by the other variable. The selection of instrumental variables is troublesome because these conditions are difficult to meet. We have, therefore, decided that, prior to investing the effort into finding instrumental variables, we shall first test for the presence of endogeneity.

For testing for endogeneity in the model we have utilized the standard Hauseman Specification test. The empirical results of this test on the variables in the model are included in Appendix. The test results indicate that GDP growth is an endogenous variable and instrumenting was, therefore, necessary. We have identified three candidates for instruments - rate of growth in gross capital formation, rate of growth in employment and rate of growth in population. Three different specifications of the 2SLS model were, therefore, estimated, each using one of the potential instruments.

Additional discussion of transparency is warranted. The concept of transparency is necessarily subjective, as it relates to perceptions of the investment climate in the host country. The same is true for different measures of transparency, such as the transparency index we have used in our study or the Transparency International's Index of corruption. As a result of the subjectivity involved and the fact that different actors may weigh the individual components of transparency differently, attempts to instrument the index using specified, known economic variables would not likely be successful. There are no known economic variables that would be robust and, at the same time, would not be correlated. Similarly, with other variables in the model, attempts to instrument transparency using social variables, such as the ethnic composition of the population or cultural history will most likely prove to be spurious and have a limited usefulness outside a limited group of specifically targeted studies. For these reasons, they would also not be useful in comparisons between Western, developing and transition economies.

Furthermore, we present the individual components of the transparency index in an aggregated form for a specific theoretical reason. We have strong reasons to believe that investment decisions are made with respect to the overall state of transparency within a country, rather than with regard to its individual components. As noted above, the degree of transparency is a

Table 1. The Sample: Country Rankings According to Their Transparency

Country	Average Rank	Years Included in Sample
New Zealand	38	1992-1995
Denmark	38	1992-1995
France	38	1992-1995
Netherlands	38	1992-1994
Finland	37.5	1992-1995
Germany	37.5	1992-1995
Norway	37.5	1992-1995
Canada	37	1992-1995
Japan	37	1992-1995
Austria	37	1992-1995
US	36	1992-1995
UK	36	1992-1995
Korea	34.5	1992-1995
Spain	33.5	1992-1995
Israel	33.5	1992-1995
Jordan	33.5	1992-1995
Czech Republic	32.5	1994-1995
Italy	32	1992-1994
S. Africa	31	1992-1995
Singapore	30.5	1992-1995
Egypt	29	1992-1995
Costa Rica	28.5	1992-1995
Botswana	28	1992-1995
Morocco	28	1992-1995
Chile	28	1992-1995
Indonesia	27.5	1992-1995
Argentina	27.5	1992-1995
Syria	26.5	1992-1994
India	26	1992-1993
Paraguay	26	1992-1995
Venezuela	26	1992-1995
Columbia	25.5	1992-1995
Ecuador	25	1992-1995
Nicaragua	25	1992-1995
Uruguay	25	1992-1995
Dominican Republic	24.5	1992-1995
Philippines	23	1992-1995
Bolivia	23	1992-1995
Pakistan	21	1992-1995
Nigeria	21	1992-1994

Table 1. Continued

Country	Average Rank	Years Included in Sample
Panama	20.5	1992-1995
El Salvador	20	1992-1994
Honduras	20	1992-1995
Zambia	19	1992-1993
Guatemala	19	1992-1995
Bangladesh	17.5	1992, 1994-1995
Sierra Leone	12	1992, 1994-1995
Thailand	10	1992-1994
Malaysia	8.5	1992-1995

Source: See the text.

subjective measure. Individual actors are liable to give different weight to different components of the index. It is equally possible that investors do not perceive the individual components at all, but rather recognize relative differences in the overall business climate, even though these are derived from the individual components of the index. Furthermore, by its very nature, the lack of transparency cannot be accurately assessed a *priori*. This means that the full costs of non-transparent policies can only be assessed after the costs have been incurred. By taking investment decisions with respect to individual components of transparency, the margin of error from business decisions is increased. To put it differently, the margin of error associated with a composite index is most likely smaller since errors associated with specific perceptions and decisions may offset each other. Therefore, we strongly believe that a separate treatment of the individual components of the transparency index in our model fails to conform to our hypothesis of how investors view and manage their risk and, in terms of econometrics, our approach seems more sensible[28].

C. Data

Foreign direct investment is defined in this paper as investment in capital stock or assets by a company abroad. This should be distinguished from

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[28]However, in pursuing our due diligence in the investigation of the accuracy of the model, a specification with the components included on an individual basis was estimated. This specification resulted in significant reductions in statistical significance of the transparency variables. Further analysis showed that the individual components had high degrees of correlation with each other, resulting in inefficient estimates.

portfolio investment which is an investment into a financial asset and typically with a shorter-term horizon. There are four primary methods of foreign direct investment that can be identified. The first is when a company obtains sufficient common stock in a foreign company to assume voting control. Second is when a company acquires or constructs plants and equipment in a foreign country. Third is when a company shifts funds abroad to finance an expansion of a foreign subsidiary. Fourth is when earnings of a company's foreign subsidiary are reinvested in the foreign subsidiary instead of being returned to the parent company[29].

Transparency will be measured with the help of rankings of countries in terms of transparency. The rankings are taken from the International Country Risk Guide published monthly by Political Risk Services, (PRS). Analysts at PRS develop rankings for 162 countries on a monthly basis. PRS rankings for the level of corruption, law and order, bureaucratic quality, contract viability and the risk of government expropriation of private assets are combined to form one transparency index.[30] The higher a country's rank the more transparent their policies and institutions. The coefficient on the transparency

Table 2. TSLS regression with robust standard errors
Change in Population as Instrumental Variable

FDI/GDP	Coefficient	Standard Error	t-value	P>|t|	[95% Conf. Interval]	
GDP growth	.03486	.02325	1.499	0.138	−0.1141	.0811
Transparency	.02435	.01047	2.324	0.023	.0035	.0452
Inflation	.00124	.00239	0.518	0.606	−.0035	.0060
Interest rate	−.00003	.00006	−0.648	0.519	−.0002	.0001
Exchange rate	.38156	.32033	1.191	0.237	−.2559	1.0191
BIT	.06085	.12347	0.493	0.623	−.1848	.3065

Number of observations=135, R-squared=5816

Table 3. Simulation Results: estimated value of FDI/GDP

	OLS Model	Instrumented Model Gross Capital Formation	Instrumented Model Change in Employment	Instrumented Model Change in Population
Effect of Transparency Rank	.0106	.0088	.00353	.0244
Effect of GDP growth rate	.00163	−.00460	.00198	.0349

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[29]These and other related methodological issues are discussed in Carbaugh (1995).

index will indicate the degree to which transparency impacts the flow of foreign investment into that country.[31] The sample of data used in this study and the countries' rankings are summarized in Table 1.

The figures in the table rank countries according the level of transparency of their policies and institutions. The country with the highest rank is regarded as the most transparent and *vice versa* for countries with the lowest rank. The sample used in our estimations covered 52 countries – a smaller sample than the one used by PRS for reasons already explained. In our sample, the country with the highest rank (the most transparent country) are New Zealand, Denmark, France and the Netherlands and the country with the lowest rank (the least transparent country) is Malaysia.

For the estimation of the model we use data compiled from several sources. In addition to the transparency index described above, we use data on interest rates, GDP, inflation, total investment, population, capital formation and employment levels. All of these variables were taken from the IMF publication *International Financial Statistics*, (IFS). Data on foreign investment is taken from both IFS and the United Nation's (UNCTAD) *World Investment Report*. As noted, data on fifty-two countries over the years 1991-1995 are included in the data set.

The sample includes data on countries' variables on which the observations covers a relatively short period of time - two to four years. This is not an ideal time coverage to capture fixed effects of these variables. The reason is that the data may have been subject to short-term fluctuations. It would certainly have been preferable for us to use longer time series but, unfortunately, we were seriously constrained by data availability and re-sources. Nevertheless, it is our belief that this limitation will not funda-mentally distort our estimations - unless a critical mass of our sample were to be indeed affected by economic instability during the examined period, which we do not believe was the case.

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[30]There are other data sources comparing transparency across countries. For example, Merchant International Group regularly prepares indices of the so-called "gray - area" risks brought about by political and religious fanaticism. Another well known source is Transparency International Index. The Index refers to comparisons of corruption, and it is therefore narrower than the comparable PRS indices, which are more suitable and appropriate for our purposes.

[31]The veracity of the PRS rankings can be inferred by the fact that this information is highly sought after. Private firms pay thousands dollars a year to acquire this data for use in determining where they will invest.

D. Empirical Estimates

We have made the estimation of our model using both ordinary least square method (OLS) and two-stage-least-squares method (TSLS). The main difference between both sets of simulations is the inclusion of instrumental variables in the TSLS method. The results of our estimations are summarized in Table 2. Estimating the model using a standard OLS approach generates very encouraging results. The transparency index variable returns a coefficient of .0106. The positive sign on the coefficient indicates that as a country's transparency ranking increases, they should experience increases in foreign investment.

However, as previously noted, the OLS estimates are likely to be biased as a result of endogeneity in the model. This was also confirmed by standard test statistics which showed, *inter alia*, high standard errors. The estimates of two of the coefficients had wrong signs in comparison to our expectations. It was for these reasons that we have re-estimated the model using the TSLS method. The results of the re-estimation are very encouraging. All three variants of the model brought dramatic improvements to the quality of the estimates. The coefficients have the correct signs,[32] the standard errors (and t-values) are acceptable in at least one of the three variants, and the correlation coefficients are also reasonably high. Even though we have not attempted a formal discrimination among the three different sets of TSLS estimates, it appears that the best fitting model is the one using "population" as the instrumental variable. An explanation for this choice is provided further below.

Table 3 compares the results of the OLS model with the results of the three specifications of the TSLS model. The cells present the estimated marginal impact of a one unit change in the noted variable in the FDI/GDP ratio. A positive value indicates an increasing level of FDI while holding total GDP constant, resulting from an increase of the transparency variables.

The most interesting result is that the estimate of the marginal impact of the transparency rank is positive. That is, as countries increase the degree of transparency in their economy, their attractiveness to foreign investment increases. The fact that different specifications all return positive estimates of the marginal impact of transparency, while reporting varying impacts of GDP

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[32]The only exception is the estimated "inflation variable", which is estimated with a positive sign. However, the confidence interval is sufficiently wide to allow a negative range, as predicted by the theory.

growth, indicates a particularly robust result.

In order to examine the predictive power of the model several examples are presented below. The tables below (Tables 4 and 5) provide examples of the predictive power of the models. Table 4 lists the average percent difference between the actual FDI/GDP ratio and the ratio predicted by each of the models. Table 5 lists the actual ratio of FDI/GDP of several countries in the sample and the ratio of FDI/GDP each model predicted that the country should have received. The closer the predicted levels of FDI/GDP ratio to actual, the

Table 4. Model Specifications and Estimated Errors

Model Specification	Average Difference Between Actual and Predicted FDI/GDP Ratios
OLS	−3.3 percent
Instrumented Using Change in Capital Formation	3.9 percent
Instrumented Using Change in Employment Level	−0.2 percent
Instrumented Using Change in Population	20.1 percent

Table 5. Estimated Impact of Higher Transparency on FDI/GDP Ratios

Country	Average Transparency Rank	Average % Change in FDI/GDP Ratio, 1 point increase in TI Rank	Average % Change in FDI/GDP Ratio, 3 point increase in TI Rank
Canada	37	142	Out of Sample
Spain	34	212	253
United Kingdom	36	149	Out of Sample
Costa Rica	28.5	173	186
Philippines	23	566	619
Colombia	25.5	262	284
Egypt	29	315	365
Israel	33.5	187	246
Thailand	10	209	258
Indonesia	29	263	295
Rep. of Korea	34.5	222	448
Malaysia	9	232	242
Pakistan	22	620	690
Czech Republic	28	242	254
Chile	28	679	700
Ecuador	25	277	292
Bolivia	23	421	452
Guatemala	20	648	711
Singapore	30.5	221	230
Venezuela	26	214	240

Note: TI = transparency index.

more accurate the model.

Comparing the predicted results of the model versus the actual shows that, while not perfect, the different specifications of the model can be quite effective in predicting the level of FDI a country is likely to receive. Because of the statistical flaws discussed with respect to the OLS model, it is not surprising that it is the least effective method in predicting the correct outcome. One reason why the instrumental variable technique using the change in population is likely to be more successful is the larger number of observations. For several nations accurate data on changes in gross capital formation and especially on employment was not available, thereby reducing the number of observations in the sample. This will also reduce the predictive power of those models. Because the change in population is the most effective instrument in predicting proper results it will be the model used for discussing the substantive significance of improvements in transparency[33].

Given that the model is fairly accurate in predicting outcomes, the logical question is the extent to which transparency affects FDI. The coefficients associated with the transparency variable report the marginal impact of improving a country's transparency ranking by one point on the FDI. For the given sample, the average increase in the FDI/GDP ratio a country could expect from a one-point increase in its transparency ranking is approximately 40 percent. However, the average percent increase is not a particularly good measure as evidenced by the wide variations in results. This can be seen in the following Table 5 which shows the impact of changes in the transparency ranking for several countries in the model. It shows the percentage increase a country could expect from a one point and three point increase in their transparency ranking, respectively. For some nations the three point increase puts their transparency ranking higher than the upper limit. The out of sample designation denotes these countries.

To reiterate, the above Table 5 reveals a wide variation in the impact of increasing transparency. This is in part due to the initial level of foreign

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[33]The choice of instrumental variables used to replace GDP growth is debatable. Gross capital formation and change in employment will not be suitable if related to FDI and GDP. This is quite a likely condition but over a long-run and with substantial time lags. Population variable is probably less related to FDI (change) but may not be the best instrument for GDP growth. While we chose the "population"-based model as the "best", it is important to note that the other two simulations - with gross capital formation and employment as the instruments - generated results which were as encouraging as those based on "population" as the instrument.

participation in the economy. Moreover, the variation may also be due to the country's ranking relative to the maximum possible value, two issues which are discussed in some detail in the following section.

While measuring changes in a country's FDI/GDP ratio may aid cross-country comparisons, the actual economic impact are not particularly clear. Therefore, Table 6 below presents the estimates of the impact of improvements in transparency on actual levels of FDI for a sample of countries. As the table demonstrates, the impact of improved transparency on total FDI inflows could be quite dramatic. Our simulation shows that the biggest increase would take place in Italy, the Republic of Korea, and El Salvador - not an unlikely scenario. Nevertheless, how useful these simulations are will further depend on the functional type of relationship between transparency and FDI inflows to which we shall now turn.

E. Further Qualifications

Our estimations of the effects of improved transparency on FDI inflows in host countries are subject to further qualifications. The estimations are, of course, based on the assumption that the relationship between transparency and FDI inflows can be represented by a continuous function with constant properties. However, it is likely that the effects of improving transparency are not constant. In fact, it is reasonable to assume that countries with particularly poor transparency ratings will receive only marginal increases in investment after initial improvements in transparency. This may occur for two reasons. First, when a nation has a particularly non-transparent policy and institutional regime, small increases in their ranking would not substantially increase their overall transparency. It would be the equivalent of lighting a single candle in a pitch-black room - more can be seen, but not enough to be truly helpful. Secondly, a nation would likely have to maintain this improvement for a period of time to be taken seriously by economic actors. Due to their history of non-transparency, countries must maintain these improvements for a sufficient length of time to make their commitments credible.

An analogous situation would exist in countries with high transparency rankings. In such an economy the marginal return from the increase in ranking is not substantive. Using a parallel example, again, the equivalent of switching from a 100 watt light bulb to an 120 watt bulb in a large room will not be noticeable. In addition, a nation's policies and commitments must be seen by

Table 6. A Simulation Exercise: Changes in FDI From a 1 Point Increase in the Transparency Rank.
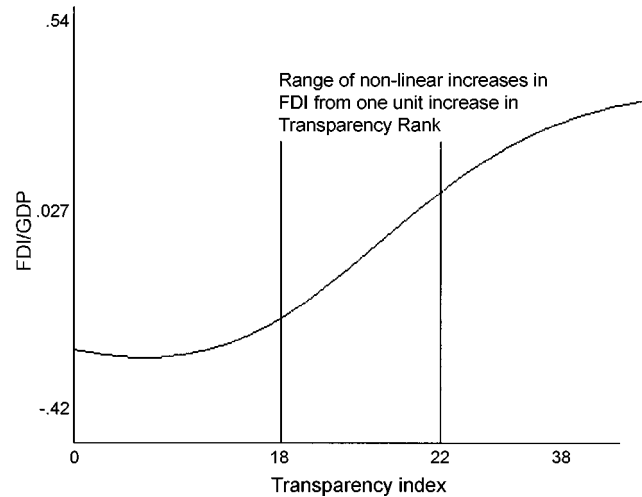
(millions US$)

Country	Observed Level of FDI	Employment Instrumental Variable	
		Predicted Level of FDI	Percent Change in FDI
Italy	$3,206.10	$6,447.00	101
Botswana	-$53.78	-$42.70	21
Argentina	$1,812.15	$2,729.60	51
Malaysia	$4,218.68	$4,431.63	5
Pakistan	$389.70	$514.83	32
Egypt	$629.55	$741.45	18
Spain	$8,495.69	$10,054.20	18
Morocco	$378.08	$467.61	24
Sierra Leone	−$1.41	−$0.82	42
Nigeria	$916.60	$983.46	7
Zambia	$46.64	$48.46	4
Indonesia	$3,260.56	$3,663.96	12
Korea, Rep. of	$1,097.56	$2,140.72	95
Czech Rep.	$1,158.91	$1,219.38	5
Chile	$1,271.26	$1,364.66	7
Ecuador	$335.21	$352.89	5
El Salvador	$21.25	$39.92	88
Guatemala	$85.71	$110.80	29
Peru	$1,326.89	$1,326.90	0
Venezuela	$897.71	$986.49	10

investors as credible as noted above. Once again, this means that the policies have to be pursued for some time before they will indeed be seen by investors as truly credible. A new signal of transparency will not necessarily add to this commitment immediately.

Given all these considerations, the relationship between transparency and FDI inflows is likely to be non-linear. The following graph 1 shows how the shift to higher levels of transparency may impact a country's attractiveness to FDI.

If these two situations hold then there should be some level(s) of transparency where increases in a country's ranking serve as an effective signal of their commitment to transparency and causes substantive decreases in the risk and uncertainty faced by economic actors. To empirically test this hypothesis an additional model was estimated. This model includes two

Graph 1

additional variables for the Transparency Index. The model adds a squared and cubed form of the original Transparency Index variable and estimated using the change in population as the instrumental variable. The signs on the coefficients of the three forms of the Transparency Index indicate the form of the slope when plotted against the ratio of FDI/GDP. The results are summarized in Table 7.

The statistical estimates of this model are very close to those expected by the hypothesis. If the hypothesis is correct the coefficient on the linear term would be positive, the coefficient on the squared term would be positive and the coefficient on the cubed term would be negative. The negative coefficient on the linear term is easily explained however. It is likely a function of the sample. The countries in the sample are more heavily distributed along the middle and upper ranges of the transparency index. This lack of observations prevents the model from estimating a proper fit for the linear term.

The table roughly shows that some increases in transparency cause greater investment then others. Specifically, this table would indicate that increases in rankings into the high teens and low twenties cause especially high increases in investment.

Table 7. Non-linear Re-estimations

Variable	Estimate
Transparency Index	−.0929
Transparency Index Squared	.00378
Transparency Index Cubed	−.0000391

VI. Policy Implications

Our empirical tests show that countries' attractiveness to foreign investors is quite closely linked to the degree of transparency of their policies. The (relatively) more transparent are the country's policies and institutions, the more attractive is the country to foreign investors. Thus, if we accept the premise that more FDI is good for countries' growth and development, the *first*, self - evident policy recommendation follows from this premise - policy makers should make sure that their policies are transparent to potential foreign investors.

Our simulations have also shown that not only the relationship between transparency and FDI inflows is positive but this relationship is in fact quite strong. An improvement in a country's ranking by only a few points will significantly improve the country's attractiveness to foreign investors and should lead to a correspondingly large marginal inflows of FDI. Thus, our *second* policy recommendation is that policy makers should pay a great deal of attention to transparency as a feature of their policies. They should concentrate on this aspect of policy - making perhaps even more than attempting to "fine-tune" other policies to attract foreign investment - in particular those concerning financial incentives.

Investment decisions are based, *inter alia*, on expectations and human psychology. This means that signals generated by economic policies may take time to be absorbed by investors who will have to be convinced that the policies will not be reversed. In other words, the policies must be credible which leads us to the *third* policy recommendation - policy makers must accept that some degree of patience is an integral part of policy-making even though election imperatives and other political goals may dictate otherwise.

We could not distinguish in our simulations among the different elements of non-transparent FDI regimes that we have identified above. Our measure of non-transparency is an aggregate one. Hence, no specific and detailed recommendations are possible with respect to these different types of non-transparency apart from the general comments made earlier in the paper. Nevertheless, our findings are consistent with those who argue that least competitive countries are also most corrupt[34]. This would, therefore, suggest that corruption and bribery should be particularly targeted by policy makers whenever they wish to make their investment regimes more transparent.

A final comment can be made about the extent to which countries should

undertake international obligations in order to improve their transparency. As we have suggested above, it is clear each country's policy-making must start with more transparent domestic legislation and policies and a strong law enforcement mechanisms. But this raises the question whether approaches based on national solutions are sufficient. We strongly believe that this is not the case. For example, domestic legislation on corruption is unlikely to replace international commitments. Moreover, national solutions are certainly not enough if the same solutions are not adopted by all countries ! Thus, our *fourth* and final policy recommendation is that countries should seek and support international approaches to improve transparency of their policies as much as possible. The only remaining question is whether these approaches should be bilateral, regional or multilateral

What kind of international solutions ? Given the affiliation of one of the present authors, it will not be surprising to the reader that we strongly favor a multilateral approach[35].

VII. Post Scriptum

We are painfully aware that the concept of transparency is quite elusive and, therefore, very difficult to measure. This also means that simulations of the relationship between transparency and FDI flows are subject to ambiguity of data and errors of measurements, quite apart from all the econometric difficulties that we have encountered and discussed in the text. Ideally, we should have been dealing with transparency *per se* since it is the actual level of transparency that really matters in investment decisions. Unfortunately, there is no way of unambiguously measuring this phenomenon and we had to rely on a *relative* measurement - international ranking. Moreover, we have relied on the data base provided by one source - PRS - that has been widely used in the literature and by the business community. We have made no effort to compare either the methodologies or the actual ranking of countries in our sample across different sources. To the extent that there are differences, we have, therefore, made no attempt to reconcile them.

Since the estimations have been done with the help of different techniques we have obtained different estimates. Some of the estimates appear better than others

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[34]The studies are quoted, for example, in Krastev (1999).
[35]For more discussion and justification of this point see Drabek (1998).

but we have not made the additional step of discriminating among the results. This could obviously be another step that we could take in order to improve econometric tests. We feel, however, that the benefits to be obtained from these improvements would probably not justify the costs. These shortcomings notwithstanding, we are very encouraged by our econometric results. The results are robust and statistically significant. They drive home the main point that transparency matters for foreign investors, and that it matters a great deal.

Acknowledgement

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