OUTWARD FDI AND THE ECONOMIC PERFORMANCE
OF EMERGING MARKETS

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1. INTRODUCTION

A fairly substantial literature exists that evaluates the impacts of outward foreign direct investment (OFDI) on home countries.\(^1\) The emphasis of the relevant studies has been on OFDI from developed countries reflecting the historic propensity for OFDI to be undertaken by transnational corporations (TNCs) headquartered in developed countries. However, OFDI from emerging countries has been growing in both absolute and relative importance in recent years. As a result, increasing attention is being paid by researchers and policy makers to OFDI by TNCs headquartered in emerging markets, particularly those from the so-called BRICS (Brazil, Russia, India and China).\(^2\) Nevertheless, there is relatively little published research on the home country impacts of OFDI for emerging economies.

Studies for developed home economies focus on a wide range of potential economic impacts of OFDI including impacts on domestic employment, wages, expenditures on research and development and innovation, trade flows and tax revenues, among others (Kokko, 2006). While there is some conflicting evidence, the broad conclusion to be drawn from the relevant studies for developed countries is that OFDI is associated with net benefits to the home country that are manifested in higher per capita real income levels.\(^3\) The evidence suggests that the productivity benefits of OFDI are achieved primarily through efficiency gains tied to the specialization and scale advantages of firms competing in international markets, and the indirect importation of knowledge and technology through imports and internal spillovers. In this sense, OFDI benefits are ultimately linked to international economic integration which, in turn, has resulted in rising per capita incomes in developed home economies. In short, OFDI in developed economies is part of a tightly coupled system of complementary relationships.

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1. Among the many studies, see Reddaway, Potter and Taylor (1968), Horst (1976), Bergsten, Horst and Moran (1978), Rugman (1987) and Globerman (1994). An extensive, recent review of the literature is provided by Kokko (2006).
2. An overview of OFDI from the BRICS is provided by Sauvant (2005).
3. Kokko (2006) concludes that an important source of differing findings with respect to home country economic effects of OFDI is the nature of the assumed “counter-factual”. That is, what assumption should one make regarding what would have transpired in the home country had the OFDI in question not taken place?
that includes inward FDI (IFDI) and trade flows, and the benefits to OFDI are best understood in the context of these complementary relationships.

While recent studies suggest that rising levels of OFDI characterize newly developed countries (Duran and Ubeda, 2005), one should not assume that the home country impacts of OFDI for emerging markets mirror those observed for developed countries. Differences of various sorts between developed and emerging economies, as well as between developed and emerging-country TNCs, may contribute to different motives for OFDI, as well as to different consequences of the OFDI that is undertaken. In fact, we present and discuss evidence in this study suggesting that the OFDI undertaken by emerging economies has been quite limited, to date, and does not appear to be embodied in a strong nexus of international economic linkages encompassing trade and IFDI.

The strong complementarity among OFDI, IFDI and trade has been emphasized by Dunning (1981) and Dunning et al (2001) in the various versions of the Investment Development Path (IDP). Although the direction of causality is not unambiguous, the IDP studies consistently indicate that economic development is associated with high levels of trade and FDI. Hence, the weak linkages observed between OFDI, IFDI and trade for emerging markets is suggestive of the difficulties that many emerging countries face in achieving sustained productivity growth. While the precise reasons for the weak observed linkages between OFDI and other measures of globalization are uncertain, we argue in a later section that corporate governance attributes of emerging markets may be an important factor limiting the economic benefits that emerging economies realize from the OFDI undertaken by emerging market transnational companies (TNCs).

While some observers argue that the globalization process broadly defined, as well as OFDI specifically, will inevitably lead to governance reform in emerging market TNCs, others argue that increased OFDI, IFDI and international trade, both individually and collectively, are not a sufficient motivation for governance reform. In particular, the latter argue that political actions within emerging markets are required to introduce
competition and market transparency that will promote new forms of corporate
governance, and such political changes are difficult to implement. In many cases,
political actions have been the result of financial crises afflicting emerging economies
with pressure for changes being exerted by international agencies such as the IMF.
Obviously, it would be preferable for the relevant changes to be implemented in a
proactive manner. In this regard, our broad policy conclusion is not dissimilar to Moran’s
(2006, p.11) suggestion that an appropriate public policy stance towards OFDI is one that
is “lightly predisposed toward eliminating market failures that might impede home
country firms from engaging in FDI.”

The paper proceeds as follows. Section 2 provides a brief overview of OFDI
patterns for emerging market TNCs with a particular focus on the host country locations.
Section 3 outlines the potential economic consequences of OFDI, particularly as they
reflect the linkages between OFDI, IFDI and trade and the economic benefits of those
linkages, and summarizes the evidence for developed countries regarding the linkages
and their economic benefits. Section 4 identifies possible reasons why the linkages and
their benefits observed for developed economies described in Section 3 may not be
characteristic of the emerging market experience. Section 5 provides some empirical
evidence on the extent to which the empirical relationships between OFDI, on the one
hand, and IFDI, trade and domestic capital formation rates, on the other hand, differ
between developed and emerging economies, as well as among emerging economies.
Section 6 discusses some research that focuses on the relationship between international
economic integration and the restructuring of emerging economies, particularly the
degree of convergence between public and private sector governance practices in
developed and developing countries. Finally, Section 7 contains a brief set of policy
conclusions.

2. OVERVIEW OF OFDI FROM EMERGING MARKETS

While developed countries remain the major global source of OFDI, outflows
from developing countries have risen from a negligible amount in the 1980s to $83
billion in 2004. Reflecting the growth in OFDI flows, the outward FDI stock from developing countries reached more than $1 trillion in 2004, representing an 11 percent share in the world stock. Paralleling the growth of OFDI is an increase in the number of countries that are home to TNCs. Thus, the number of emerging economies that reported OFDI flows rose from 20 in 1985 to 122 in 2003.

While the growth of OFDI from emerging economies is certainly noteworthy, it is also relevant to note the degree to which OFDI activity is concentrated in a relatively small number of countries, some of whom may no longer be considered as “emerging”. For example, according to Sauvant (2005: 642) some two-thirds of the OFDI stock headquartered in emerging economies is accounted for by five economies: Hong Kong (China), Singapore, Russian Federation, Taiwan Province of China and Brazil. According to UNCTAD (2005: 17), of the top 50 TNCs headquartered in emerging economies, Hong Kong and Singapore have 10 and 9 entries, respectively, on the top 50 list. Almost 80 percent of the top 50 TNCs are headquartered in Asia (UNCTAD 2005, p. 17). In a related study, the Boston Consulting Group (2006) identifies 100 global companies from rapidly developing economies, of which 65 were from China and India. As we discuss further below, evaluation of the impacts of OFDI depends, in part, on the how one defines an emerging economy.

As suggested above, OFDI from emerging economies has historically been concentrated in a small number of East Asian countries, particularly Hong Kong and Taiwan. This observation is illustrated by the data reported in Table 1. Thus, over much of the 1980s (1983-1988), Hong Kong and Taiwan accounted for almost 70 percent of OFDI flows originating in East Asia, while OFDI flows from East Asia comprised approximately 77 percent of the total OFDI flows from emerging countries reported in Column One of Table 1. In 1995, OFDI flows were even more concentrated in terms of region of origin. Specifically, East Asia accounted for almost 91 percent of OFDI

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4 For summaries and analyses of OFDI patterns from emerging markets, see UNCTAD (2005b), Sauvent (2005) and World Bank (2006).

5 The amount of OFDI from emerging markets is likely understated, since many countries do not report any outflows, and official statistics often omit reinvested earnings (World Bank, 2006:129).
outflows for the countries and regions shown in Table 1. The share of East Asian OFDI originating in Hong Kong and Taiwan was only slightly smaller (69 percent) than it was in the 1983-1988 period.

Besides being highly concentrated geographically, OFDI from emerging markets is also highly concentrated amongst a relatively small number of TNCs. Thus, the five largest TNCs listed by UNCTAD accounted for almost half of the total foreign assets of the top 50 non-financial TNCs from emerging economies. One company, Hutchinson Whampoa (Hong Kong), alone accounts for 25 percent of the total foreign assets held by the top 50 TNCs (UNCTAD 2005, p.17). The top 50 non-financial TNCs span a wide range of industrial activities. Although the majority of OFDI originates in larger firms, SMEs do play a role in this regard, and the importance of SMEs in the OFDI process varies by country (UNCTAD 2005a,b; World Bank, 2006).

Recent evidence suggests that a substantial share of emerging market OFDI goes to emerging market home countries. Although there is an increasing amount of South-North FDI, with some widely publicized acquisitions, it remains true that some 87% of all FDI from emerging markets are South-South (Battat and Aykut, 2005). South-South FDI now constitutes about 35% of all FDI going to emerging markets, most of which is regional, and in the extractive and infrastructure sectors (Battat and Aykut, 2005). Importantly, many of the companies involved in these sectors are state-owned enterprises (SOEs), particularly state-owned oil companies from China and India. In general, SOEs play a significant role in Chinese OFDI (World Bank, 2006: 114).

The historical concentration of OFDI in a relatively small number of emerging economies and a small number of TNCs is a caution against generalizing with confidence about the impacts of OFDI on emerging markets, since the observable experience, to

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6 Such acquisitions include Lenovo’s (China) purchase of IBM’s (US) PC business, CEMEX’s (Mexico) acquisition of RMC (UK), and AmBev’s (Brazil) takeover of Labatt (Canada). The Boston Consulting Group (2006, 2006a) identifies Chinese and Indian companies in their sample of emerging market TNCs as acquiring companies in the developed world, whereas TNCs based in other emerging economies have been focusing on acquiring assets in other emerging markets. They note in particular the attempts by Chinese companies to acquire strategic assets, and the problems associated with these acquisitions.
date, is limited to a relatively small set of participants. To be sure, a number of emerging economies that are relatively insignificant in terms of total OFDI are relatively intensive participants in the OFDI process, where the intensity of participation is identified by the ratio of outward FDI to GDP, or some other measure of the overall size of the home country. For example, Panama was the most OFDI-intensive emerging country in 2004, and Ajerbaijan and Bahrain were the third and fourth most OFDI-intensive emerging economies (UNCTAD 2005, p. 276). Each of these latter countries has some unique set of circumstances underlying its OFDI intensity which limits the utility of including them in a sample of emerging economies for purposes of assessing the economic impacts of OFDI on the home country.  

Notwithstanding the above-mentioned need for caution in generalizing from the historically concentrated experience of emerging economies with the OFDI process, it is clear that countries such as Brazil, China, India, and Russia are becoming increasingly important participants in the OFDI process. Hence, relevant OFDI experience is no longer confined to Hong Kong, Taiwan and Singapore. Indeed, in the empirical work below, we find that these latter countries are, in many regards, similar to developed countries. The fact that emerging countries are at different stages of development, and different stages of experience with OFDI, suggests that some heterogeneity might be anticipated across emerging economies in terms of OFDI impacts.

3. THE POTENTIAL ECONOMIC IMPACTS OF OFDI

As suggested above, the potential economic impacts of OFDI can best be appreciated in the context of how OFDI contributes to a nation’s international economic integration. For purposes of convenience, we use the term “globalization” as a synonym for international economic integration without regard to whether the integration is primarily intra-regional or extra-regional.

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7 While obvious, it is important to emphasize that impacts of OFDI on the home country are not necessarily identical to the impacts upon the TNC undertaking the OFDI.
8 For purposes of convenience, we use the term “globalization” as a synonym for international economic integration without regard to whether the integration is primarily intra-regional or extra-regional.
production and inflows to the home country of factor inputs such as new technology and new management practices. In particular, the potential linkage between OFDI and trade might well be the most important channel through which OFDI impacts the home economy. Certainly, it has received the most attention in the literature evaluating the consequences of OFDI for developed economies.

3.1 OFDI and Trade

The conceptual basis for understanding the location of international production, and the role played by direct investment, was originally established by Dunning’s (1973) eclectic paradigm. The eclectic paradigm identifies the international distribution of production facilities as the outcome of the interaction between location-specific advantages, firm-specific advantages and ownership advantages. Location-specific advantages are derived from traditional and non-traditional determinants of country-level comparative advantages. Firm-specific advantages are primarily related to the ownership of proprietary assets, often tacit knowledge, which enables a firm to establish a competitive advantage in specific activities. Ownership advantages are linked to market imperfections that make it more efficient to carry out specific economic activities within a single organization, rather than across the boundaries of independently owned organizations.

While the eclectic paradigm has been substantially refined and extended since its introduction, its basic insights into the potential linkages between trade and OFDI remain salient. Specifically, if international transactions are most efficiently carried out by home country-based TNCs, OFDI will stimulate international trade by expanding an efficient channel through which trade takes place. Home country-based TNCs may be more efficient at carrying-out specific international transactions because they possess firm-specific advantages in those activities. Furthermore, market imperfections may render arms-length international transactions less efficient than intra-firm exchanges as channels for international trade. In this broad context, OFDI encourages increased international trade in specific economic activities because it reflects an efficient firm-specific channel for carrying out such trade. It is important to note, however, that while there is a strong
theoretical basis for expecting that OFDI will promote international trade, the causal linkage between the two is difficult to identify empirically (Duran and Ubeda, 2005).

Increased trade, in turn, can take the form of both increased exports and imports. Presumably, OFDI will encourage increased exports of goods for which the home country has a location advantage. At the same time, home country TNCs can be efficient channels for the importation of goods (including factors of production) for which the home country suffers a location disadvantage. In this context, OFDI promotes inter-industry trade and a resulting specialization of production within the home country along traditional lines of comparative advantage; however, home country TNCs can also be an efficient channel for coordinating the geographical specialization of value chain activities within industries, where economies of scale (including agglomeration economies) underlie the imperative for geographical specialization of specific value chain activities. In this context, OFDI helps promote intra-industry trade between the home country and its trading partners.9

Evidence bearing upon the quantitative importance of the linkages between OFDI and inter and intra-industry specialization among developed countries is somewhat equivocal. For example, Lipsey (2002) finds that multinational operations have led to a shift by parent firms in the United States toward more capital-intensive and skill-intensive domestic production consistent with inter-industry specialization along comparative advantage lines; however, this type of sectoral reallocation does not appear to have taken place in Sweden and Japan. In another study, Lipsey (2000) concludes that within most broad industry groups, U.S. FDI tends to move to countries with comparative disadvantages in trade relative to the United States. In resource-intensive industries, however, it moves to countries with comparative advantages in trade relative to the United States.

9 For a fuller discussion of the conceptual linkages between OFDI, IFDI and intra-industry trade, see Graham (1994). Again, these relationships are difficult to identify in the statistical sense. Nevertheless, Lawrence and Weinstein (2001) suggest that imports lead to TFP growth because they promote innovation and learning by domestic firms. Urata (2001) finds that trade enhances productivity for Asian countries, and also links FDI and international trade.
Increased real income levels associated with traditional gains from trade, as well as the efficiency improvements associated with economies of scale and specialization from intra-industry trade, may be seen as important potential indirect benefits of OFDI to the home country. These benefits are magnified to the extent that new (to the home country) technology is embodied in imports such that imports contribute to international R&D spillovers from exporting to importing countries. Bernstein and Mohnen (1998) and Coe and Helpman (1995), among others, assess the influence of trade volume-weighted foreign R&D capital stocks on domestic productivity levels among OECD countries and identify substantial international R&D spillovers linked to trade.\(^\text{10}\)

It is not possible to review the extensive literature evaluating the economic benefits and costs of increased international trade for developed countries. Suffice to say, the consensus opinion of economists remains that international trade is ultimately linked to higher real income levels. The relevant issue for this study is whether the linkage between OFDI and trade, both in terms of the strength of the linkage and its economic consequences, are likely to differ between developed and emerging economies.

### 3.2 OFDI and Technological Change

As discussed in the preceding section, increased imports are a channel for R&D spillovers that raise income levels in the importing country. Moreover, OFDI can also promote technological change in the home economy more directly through the transfer of knowledge about new production and management techniques from foreign affiliates to the parent company. Such reverse transfers of technology are potentially derived from “knowledge-seeking” OFDI, particularly investments that are located in regions where clusters of expertise in specific technologies reside. However, as noted in several studies, the benefits of these reverse transfers depend quite critically on the absorptive capacity of the home firm (Tavares and Young, 2005).

\(^{10}\) The analogue to this finding is that exporting countries may suffer adverse terms-of-trade effects to the extent that their direct and indirect exporting of technology enables other countries to build similar location advantages as the exporting country; however, to the extent that increased exports promote increased R&D and innovation activity in the exporting country, the location advantage of the exporting country might be maintained or even enhanced.
The evidence on the economic importance of reverse transfer of disembodied technology is more equivocal than the evidence on R&D spillovers associated with imports of goods. For example, Jaffe and Trajtenberg (1999) use patent citations as a measure of knowledge spillovers for the U.S., U.K., France, Germany and Japan. They find that patent citations are geographically localized. More generally, Globerman, Shapiro and Vining (2005) find that geographical proximity of Canadian software companies to U.S.-based clusters of innovation activity does not seem to improve the economic performance of the Canadian companies. It is certainly possible that there is limited scope for transfers of disembodied technology among developed countries given similar levels of economic development across those countries. In this regard, transfers of technology from developed to developing countries may be more readily identifiable.

3.3 Domestic Capital Formation and FDI Inflows

Relatively little attention has been paid to the relationship between OFDI and domestic capital formation rates for developed home countries. This likely reflects two empirical observations highlighted by Lipsey (2000). The first is that inward and outward FDI stocks tend to coincide for developed countries. That is, nations that invest abroad are usually major recipients of FDI. Analyzing data for individual OECD countries from 1970-1995, Lipsey finds that the relationship between inflows and outflows of foreign direct investment relative to total output is positive and significant in most of the sample countries. The second observation is that neither inflows nor outflows of direct investment are crucial to determining the level of capital formation in a given country. Lipsey shows that even gross FDI inflows have been small relative to gross fixed capital formation. In most countries, gross inflows of FDI averaged 5 percent or less of gross fixed capital formation. Thus, it is unlikely that OFDI has a significant negative impact on domestic capital formation, and for developed countries, any potential losses are offset by capital inflows.

Lipsey does not argue that OFDI and IFDI are causally linked. Rather, he believes that the “co-evolution” of the two phenomena among developed countries primarily
reflects economic conditions that influence the turnover of assets among TNCs from developed countries. That is, in the language of the eclectic paradigm, differences in firm-specific advantages lead to mergers and acquisitions across developed home and host economies. As noted above, Dunning (1981, 1988) explicitly links OFDI and IFDI flows to levels of economic development in the home country. In his investment development path (IDP) model, the magnitude and nature of OFDI varies discretely as the home country becomes wealthier. At the same time, inward IFDI is attracted to wealthier countries. It is important to emphasize, however, that the IDP of each individual country may be path dependent and fundamentally idiosyncratic.

The link between OFDI and IFDI is less widely studied, and perhaps less widely understood than the link between OFDI and trade. Indeed, Tavares and Young (2005) argue that policy makers have not generally understood the implications of the connection for competitiveness and development. In terms of the eclectic paradigm, OFDI and IFDI are linked because the firm-specific advantages required to be internationally competitive may be more likely acquired when the home economy has location advantages that attract IFDI, which in turn provides spillover benefits to home country firms, some of whom become TNCs.¹¹ Thus there is a dynamic interaction between OFDI and IFDI, resulting in high levels of both for developed countries.

We are not concerned with whether observed linkages between OFDI and IFDI are causally related or merely reflect the influence of broad economic determinants common to both. Our main concern is whether the linkage observed for developed countries can also be identified for developing countries. To the extent it exists, concerns about OFDI suppressing domestic capital formation rates in developing countries are mitigated. Specifically, FDI inflows would help mitigate the impact of FDI outflows for emerging markets. In addition, strong links between OFDI and IFDI suggest the presence of both firm-specific and location advantages in the home country.

¹¹ In this regard, we note that several studies suggest that domestic firms are more productive when they engage in international activity, and part of the reason is their greater ability to absorb spillovers. Thus, foreign firms in the domestic market are more efficient than domestic firms only if the latter are confined to the domestic market (see, for example, Baldwin and Gu, 2005).
3.4 Summary

OFDI is a component of globalization. Hence, the economic consequences for the home country will reflect the strength of the linkages between OFDI and manifestations of globalization including increased international trade, as well as direct and indirect international transfers of technology, information and governance practices. Theory, as well as evidence for developed countries, tends to support a view that OFDI has net economic benefits for the home country. Specifically, OFDI promotes increased specialization of production with resulting economies of scale and specialization, as well as the transfer of technology into the home market. As a consequence, OFDI contributes to higher real incomes in the home country.

Differences in economic and political conditions between developed and emerging markets caution against assuming that the consequences of OFDI for emerging economies mirror those for developed economies. In the next section of the paper, we identify characteristics of emerging markets that may contribute to those markets experiencing different economic consequences from OFDI than those experienced by host developed economies.

4. EMERGING ECONOMIES AND OFDI

There are numerous differences between developed and emerging economies that could potentially contribute to differences in the home country impacts of OFDI. In this section of the paper, we focus on attributes of emerging markets that have been prominently discussed in the literature and explore the implications of those attributes for the home country impacts of OFDI. Since there are significant differences across emerging economies in the relevant attributes, the discussion in this section also highlights potential reasons for differences across emerging economies in OFDI impacts.

4.1 Business Groups, Ownership and Governance

Recent evidence indicates that the economies of most emerging and transition economies are dominated by large, diversified business groups (Khanna and Yafeh,
2005a; Morck et al, 2005). Many (though not all) of these groups are family-controlled corporations characterized by pyramid ownership structures. Others, such as those in China, have important links to the state. As their importance becomes increasingly well documented, scholars have begun to study their characteristics and their performance (Khanna and Rivkin, 2001; Khanna and Yafeh, 2005, 2005a). On balance, the existing literature offers equivocal evidence bearing upon the hypothesis that business group affiliation provides performance benefits in emerging and transition markets. Thus, it remains unclear whether such business groups are “paragons or parasites” (Khanna and Yafeh, 2005a).

In developed economies, with well-functioning external markets, the access by firms to critical resources, particularly capital, labour, and complementary assets, is achieved primarily through market-based transactions. These markets are supported by a governance infrastructure that protects property rights, including an independent judiciary, an efficient and relatively corruption-free government, and a transparent regulatory framework (Globerman and Shapiro, 2002). Under these circumstances, external markets are likely more efficient than internal markets for many transactions, and especially those related to capital markets. The reliance on external markets also promotes specialization within industries and firms, and internationally competitive firms are relatively specialized (Meyer, 2004).

On the other hand, in economies where external markets are not efficient, where property rights protection is weak, where contract enforcement is difficult and where corruption is widespread, large diversified business groups emerge to fill the voids created by market failures and missing institutions (Khanna and Palepu, 1997). Khanna and Rivkin (2001) argue that the internal markets created by such business groups are relatively efficient in the face of the widespread market failures prevalent in emerging market economies. These internal markets tend to favour the emergence of diversified companies, which are often highly successful in their home markets (Khanna and Palepu, 1997; Nachum, 2004). However, a lack of specialization may limit the capacity of
business groups to compete effectively in international markets, unless they are able to effectively refocus their activities.  

There are other potentially adverse consequences of group ownership for economic efficiency, some of which are related specifically to concentrated family ownership. These include inefficient capital investment, obstructed entry of new firms, stunted development of domestic capital markets and political “rent-seeking” on the part of the controlling family owners, whereby the latter invest in political connections to stifle competition and to obtain privileged access to domestic resources (Morck et al, 2005).

Another prevalent characteristic of family owned businesses is the limited use of professional managers in favor of using family members or trusted associates as key decision-makers in those businesses. For example, Claessens, Djankov and Lane (2000) report that, in East Asian countries, top managers are family members in about 60 percent of firms that are not widely held. They also find that the top 15 family controlled pyramids in East Asian economies hold corporate assets worth a large fraction of GDP—84 percent of GDP in Hong Kong, 76.2 percent in Malaysia, 48.3 percent in Singapore, 46.7 percent in the Philippines and 39.3 percent in Thailand. The minimal use of outside expert managers may contribute to underperformance from an asset utilization viewpoint. Furthermore, the lack of effective external monitoring in pyramid firms whose governance is dominated by a powerful family may deprive even scrupulous managers of effective investor feedback regarding investment decisions (Morck, Wolfenzon and Yeung, 2005, p.686).

Reliance upon family members and close associates to fill key management positions is paralleled by an emphasis on personal networks rather than contracts as the governance mechanism for transactions. To the extent that the competitive success of family-owned conglomerates derives largely from network connections in the home

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12 Hoskisson et al (2005) provide a framework for evaluating the potential for refocusing among emerging economy business groups.
country, they may be disinclined to invest abroad where different firm-specific advantages are pre-requisites for competitive success (Erdener and Shapiro, 2005). If true, emerging economies characterized by family-owned conglomerates may have much less OFDI than would otherwise be the case. In a related manner, reliance upon personal networks may predispose family owned businesses in emerging economies to invest in foreign countries where personal relationships with business and government leaders are strong. This phenomenon implies that OFDI by family-owned businesses in emerging economies may not primarily driven by efficiency considerations which, in turn, might attenuate the benefits of OFDI.

In some emerging economies, most notably China, public ownership is a key feature of corporate governance. In principle, state ownership leads to a substitution away from efficiency considerations as motivators of investment decisions in favor of other objectives. It is unclear, a priori, if state ownership promotes or discourages OFDI, other things constant; however, there is reason to believe that the OFDI that is undertaken will not be as economically beneficial to the home country as OFDI originating in publicly owned companies managed by professionals. Indeed, Blumenthal and Swagel (2006) have criticized purchases of overseas energy assets by Chinese companies. They claim that Chinese oil companies have vastly overpaid for the oil assets they have purchased, partly because the Chinese Communist Party sees energy instability as a threat to its rule. In a similar vein, Pitts (2006) cites assertions made by management consultants that Chinese companies suffer from a lack of merger and acquisition capabilities, thereby leading to ill advised acquisitions. More generally, Hoskisson et al (2005) suggest that government controlled business groups are the least likely to refocus in a way that promotes competitiveness.

Reflecting these problems, many observers argue that today’s developing countries face a challenge unknown to many OECD countries; namely, how to move

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13 The majority of “globalizing” Chinese companies is state-owned or state-controlled. See The Boston Consulting Group (2006).
14 In this regard, ownership of globalizing Indian companies is usually divided among private owners and the general public.
from heavily relationship-based to rules-based systems of corporate and public governance. Reforms of this type should provide greater incentives for large firms to narrow their business scope and reduce efforts to exert political influence, as well as for new firms to enter (Hoskisson et al, 2005; Peng et al, 2005). In this regard, Yeung (2005) argues that globalization will inevitably contribute to fundamental changes in public and private sector governance, especially in Asian emerging economies. Among other things, developed country affiliates of TNCs headquartered in emerging economies will employ managers trained and experienced in Western management practices, some of whom, in turn, will wind up managing at TNC headquarters. Their presence in senior management positions in emerging market TNCs should contribute to an evolution away from family-control in favor of professional managers. Furthermore, to the extent that emerging market TNCs raise capital in global capital markets, they will be obliged to adopt accounting practices, as well as corporate governance practices, that are arguably more transparent and “public investor friendly” than those required to raise capital in the home countries.

In summary, the nature of business groups and the corporate governance features of emerging country TNCs may or may not discourage OFDI undertaken by those companies. A stronger argument can be made that those features will result in the OFDI that is undertaken conveying smaller home country benefits than would be the case if the strategies and corporate governance of the companies more closely resembled those in developed countries. On the other hand, to the extent that corporate governance in emerging countries “improves” as a function of international economic integration, those improvements themselves will represent a long-run benefit of OFDI.

4.2 Domestic Capital Formation

15 Oman and Blume (2005) identify a country’s system of corporate governance as the formal and informal rules, accepted practices and enforcement mechanisms, private and public, which together govern the relationships between people who effectively control corporations, on the one hand, and all others who invest in the corporations, on the other hand.

16 For a contrary view, see Li (2005).

17 Morck, Wolfenzon and Yeung (2005) also suggest that “openness” may create popular support for institutional reform in emerging economies. The World Bank (2006) focuses on current impediments to OFDI such as bureaucratic constraints and the lack of business services.
As noted earlier in this paper, among the OECD countries, there has been little concerned expressed about the potential for OFDI to discourage net domestic capital formation. One reason is that OFDI tends to be balanced by IFDI. A second is that domestic capital markets in most OECD countries tend to be relatively efficient and liquid, as well as integrated into global capital markets. As a consequence, a substantial share of domestic capital investment can be financed locally.

This sanguine view of the potential linkage between OFDI and net domestic capital formation might be inappropriate in the context of emerging markets.\(^\text{18}\) For one thing, many emerging markets may be unattractive host country locations for IFDI given features such as public sector corruption and government restrictions on foreign ownership in a range of industrial sectors (Globerman and Shapiro, 2002). For another, domestic capital markets, to the extent they exist, are relatively inefficient and illiquid, thereby limiting the ability of domestic businesses to finance capital expenditures through local borrowing or equity issuance, at least to any great degree. Rather, as noted earlier, domestic capital investment patterns will largely reflect the decisions made by family and state-owned businesses regarding their deployment of retained earnings. This reflects the fact that capital markets in many emerging markets are internalized within large domestic conglomerates. In this context, increased capital investment by smaller, domestic firms might not offset reduced domestic investments by TNCs to the same extent as might be expected in the case of developed economies.\(^\text{19}\)

A reduction in rates of domestic capital formation associated with OFDI is a different concern than temporary outflows of capital associated with foreign exchange crises. The latter are essentially irrelevant to OFDI, since they reflect short-term flows of portfolio capital. Studies show that direct investment capital flows are generally not significant contributors to capital flight during currency crises experienced by developing

\(^{18}\) Chen and Chen (1995), among others, discuss the possibility of Taiwan’s “deindustrialization” as a consequence of resource-seeking OFDI.

\(^{19}\) Increased levels of domestic investment might be expected for the following reason. If TNCs increase their investing abroad, the expected rate of return to domestic capital formation should increase, all other things constant, since profitable domestic opportunities are presumably foregone by those TNCs in favor of more profitable opportunities abroad.
countries; however, reduced long-term domestic capital formation rates associated with OFDI are potentially a more relevant concern in the case of developing markets than in the case of developed economies.

Despite these concerns, the available information clearly indicates that OFDI plays a very minor and indirect role in the overall savings and investment process in developing countries. Simply put, in the vast majority of developing countries, OFDI as a share of GDP is quite small compared to overall domestic savings as a share of GDP. This is particularly true for emerging Asian economies that account for a disproportionate share of emerging market OFDI.

Table 2 reports gross savings and gross capital formation as a share of regional gross national income (GNI) for selected years. Several points are obvious from the tables. First, gross savings rates in emerging Asia have been higher than gross capital formation rates over a 25 year period, reflecting, in part, the large trade surpluses of Asian countries. Even if one believes that emerging Asian economies should have invested more in domestic infrastructure, particularly in sectors such as transportation and environmental protection, a scarcity of domestic savings does not seem to be a direct constraint on such capital investments. Moreover, ratios of OFDI to GDP for emerging Asian countries are well below the reported ratio of gross savings as a share of GNI underlying the fact that OFDI is not a significant source of savings leakage in these countries.

A second point is that the Latin American experience is somewhat different from the Asian experience. Specifically, the gross capital formation ratio has generally exceeded the gross savings ratio suggesting that increased domestic savings rates would have mitigated the need for as much external capital as was acquired by Latin American countries in the recent past; however, in the context of the major determinants of public and private sector savings, the relatively small flows of OFDI that have been undertaken to date by Latin American TNCs can hardly be considered an important factor. In particular, the political instability of the region is arguably far more important in
depressing domestic savings rates than is the overseas investment of home country TNCs. Indeed, the former may well be a strong encouragement to the latter.20

A third point is that recent increases in oil prices are contributing to a large savings surplus in Middle Eastern countries, and a substantial share of these savings are presumably being “recycled” outside the region given the disparity between the savings ratio and the gross capital formation ratio. In particular, the savings ratio is estimated to be 41 percent in 2005, whereas the gross capital formation ratio is approximately 21 percent. Against this background, it is obvious that even substantial increases in OFDI from the Middle East would have relatively little impact upon the availability of domestic savings to fund domestic capital investments.

Thus, although a major negative potential impact of OFDI for emerging economies is the effective reduction of domestic savings available to fund domestic capital investments, in fact this concern is unwarranted. As an empirical matter, many emerging countries enjoy large savings surpluses relative to domestic capital formation. Hence, even significant future increases in the relatively low current ratio of OFDI to GDP for these countries are unlikely to affect the ability of domestic investors to fund domestic capital expenditures from domestic savings. Furthermore, domestic savings rates in emerging countries are much more fundamentally affected by factors such as demographics, real economic growth, the efficiency of the financial sector and the security of property rights than by the saving and investment decisions of home country TNCs.

As a theoretical matter, the overall impact of OFDI on domestic savings rates will reflect more than simply a direct deduction from domestic savings. For example, to the extent that OFDI contributes, directly or through augmenting other forces of globalization, to real income growth in emerging markets, it will likely contribute to higher savings rates in those markets. Furthermore, closer economic integration with

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20 For some empirical evidence on the determinants of savings rates in emerging countries, see Edwards (1996).
developed countries promoted, in part, by OFDI will presumably better enable borrowers in emerging markets to raise capital in world markets at competitive rates. For example, as companies based in emerging markets become larger, partly as a consequence of OFDI, they can benefit from economies of scale in raising public capital. For another, the activities of foreign affiliates, particularly in developed countries, should raise awareness on the part of institutional and individual investors of the potential profitability of investing in emerging market TNCs.

4.3 Scarcity of Management and Technical Expertise

In the literature concerned with developed countries, an important potential benefit of OFDI is the “reverse flow” of managerial and technological expertise that results from the overseas’ operations of home country affiliates, particularly when the affiliates are located in “centers of excellence”. The ability to exploit spillover efficiency benefits from OFDI might, in turn, be a function of the managerial and technical capabilities of developing country TNCs, or more broadly, their absorptive capacity (Tavares and Young, 2005). Specifically, if the relevant capabilities are below some minimum threshold, the capacity of those TNCs to identify and exploit managerial and technological spillover opportunities from doing business abroad might be attenuated. In this regard, there is some evidence that spillover efficiency benefits from inward FDI in developing markets are only realized if host countries have minimum critical levels of human capital to take advantage of spillover opportunities. (Kokko, 2006). Thus, the benefits of inward FDI are related to the absorptive capacity of domestic firms, which is, in turn related to their international competitiveness (Tavares and Young, 2005). This may be a particularly severe problem for small and medium-sized enterprises in the home emerging market which lack the technical and managerial expertise to link into global value chains (UNCTAD, 2005). As a consequence, the potential spillover efficiency benefits to other home country firms from OFDI by emerging market TNCs may be quite modest.

Another consideration related to spillover efficiency benefits from OFDI is that a substantial percentage of OFDI from developing markets goes to other developing
countries. This so-called South-South OFDI may not generate reverse efficiency spillovers to developing home countries because the OFDI is not located in clusters of specific technological expertise, and because most South-South OFDI is arguably not of the “knowledge-seeking” type. Rather, it is meant to facilitate sales in foreign markets or to secure access to natural resources. On the other hand, the World Bank (2006:117) has argued that narrower technological gaps between home and host firms may facilitate absorption, but also note that this benefit may be limited because most South-South FDI is concentrated in extractive industries and infrastructure, where spillovers are limited. Along similar lines, Kumar (1982) has argued that emerging market TNCs have a greater propensity to establish linkages with local firms than do their counterparts from developed countries. This implies a “deeper integration” of emerging country TNCs into host economies, and this deeper integration could be particularly beneficial in terms of reverse knowledge and technology flows back to the home country.

4.4 Summary

In summary, differences in particular attributes of between developed and developing countries raise the possibility that the economic consequences of OFDI from emerging markets may not mirror those observed for OFDI from developed economies. Specifically, the strength of the linkages between OFDI and other manifestations of globalization, especially international trade and the international diffusion of technology and management expertise might differ, as might the consequences of the linkages themselves.

In particular, differences in private and public sector governance between developed and developing countries raise a possibility that OFDI from emerging markets might not be consistent with the goal of improving efficiency in producing and distributing output. As a consequence, economic benefits to the home country from increased specialization through international trade and the “importation” of technological and managerial expertise from host country affiliates may be limited in the case of OFDI from emerging economies. A key issue in this regard is whether state-owned enterprises and family-owned conglomerates are able and willing to adapt their
governance practices in order to operate efficiently in internationally competitive markets. We consider evidence bearing upon this issue in Section 6.

In the next section of this paper, we discuss some evidence bearing upon the strength of the empirical linkages between OFDI from emerging economies and other manifestations of globalization. We also provide some evidence regarding the linkage between OFDI and domestic capital formation rates in emerging economies.

5. EMPIRICAL LINKAGES BETWEEN OFDI, IFDI, TRADE AND CAPITAL FORMATION

We have argued that central to the assessment of the potential home country benefits of OFDI is the degree to which these flows are integrated with, and complementary to, trade and IFDI, as well as the impact of OFDI on domestic capital formation. In this section, we provide some evidence on the nature and magnitude of these relationships.

Table 3 provides descriptive statistics for the relevant variables for different sub-samples of countries. In particular, we focus on differences between developed economies and emerging and transition economies. As noted above, it is by no means clear how to classify countries in this simple way and, as a result, we employ several different samples.\(^{21}\) We use two samples of developed economies. The first includes the original OECD members, excluding Luxembourg (Developed I). To these we add five countries (Israel, Hong Kong, Taiwan, Singapore and South Korea) that have grown rapidly over the past decade and whose levels of GDP per capita are now not dissimilar to some of the original OECD members. In addition, they have been integrated into the global economy (as measured by IFDI, OFDI and trade). This sample is referred to as Developed II. We then constructed various samples of emerging and transition economies. First of all, countries classified by UNCTAD as the least developed were not included in any sample. These countries simply do not generate enough OFDI (0.03% of

\(^{21}\) Countries included in each sample are listed in the Appendix.
global outflows) to make any discussion of OFDI benefits meaningful. The emerging and transition sample therefore comprises countries that are neither defined as developed, nor defined as least developed. From this sample, we create several sub-samples by considering separately transition economies (as defined by the IMF), and BRIC countries. We examine ten years of data, covering the period 1995-2004, and we also examine the most recent five year period, 2000-2004.

5.1 Overview of Data

The data in Table 3 suggest that developed countries, however defined, are characterized by high (and rising) levels of IFDI, OFDI, exports, imports, and trade (the sum of exports and imports), relative to GDP. These results are consistent with Dunning’s IDP (Dunning, 1981) in that the richest economies in the highest stages of the IDP are most fully integrated into the global economy. Importantly, IFDI and OFDI flows are roughly in balance, so that capital inflows do offset capital outflows. These results hold even when Hong Kong, Israel, Korea, Singapore and Taiwan are included in the developed sample, thus suggesting that these countries have reached the higher stages of the IDP.

The results are quite different when the emerging and transition economies are considered. In general, when all such countries are considered, the most important differences between them and the developed sample are found in the IFDI and OFDI variables. The ratio of IFDI to GDP is lower for the emerging and transition countries and the ratio of OFDI to GDP is considerably lower. Thus, for these countries, capital inflows far exceed capital outflows, which is again consistent with their status as countries in the earlier stages of the IDP. Further, these variables are not increasing as fast as those for the developed economies. Interestingly, the import, export, and trade ratios are not terribly dissimilar between the samples.

There are also important differences within the sample of emerging and transition economies, most notably for the transition and BRIC countries. Transition countries have higher rates of FDI inflows than do other countries, but their outflows are not higher.
However, the OFDI rates for transition countries have been increasing more quickly. BRIC countries have lower rates of inflow, and their outflows are similar to the average for the entire developing sample. Of course, the BRIC sample comprises only four countries, but it is still striking that the FDI rates are so low, given the presence of China in the group. However, like the transition countries, the BRICs have seen their OFDI ratio increase more rapidly than other developing countries. Indeed, absent the transition and BRIC countries, the OFDI ratio for the developing sample actually declined in the most recent five-year period.

The trade variables also show considerable variation. The developing sample that excludes transition and BRIC countries has about the same trade intensity as the Developed II sample (which includes highly trade intensive small countries). However, the transition economies are considerably more trade intensive than any other sample, while the BRIC countries are considerably less trade intensive. Once again, the obvious conclusion is that emerging and transition economies are heterogeneous, and it is therefore likely that the impacts of OFDI will also differ by country.

There is one variable that exhibits relatively less variation across the samples, and that is the ratio of gross fixed capital formation (GFCF) to GDP. Thus, the notable differences across the samples arise from differences in the degree to which the countries participate in the global economy.

5.2 Correlation Results

Table 4 presents the correlation coefficients between OFDI and the other variables reported in Table 3. It is important at the outset to clarify both our reasons for undertaking this exercise, and its limitations. Our reading of the literature on the benefits of OFDI to the home country suggests that these benefits are related to the ability of home country firms to effectively compete in international markets, which in turn allows them to expand in the home market (scale benefits and specialization benefits). In addition, home country firms may obtain spillover benefits from their foreign operations, and these benefits depend both on where they locate and on their ability to absorb new
knowledge and technology. All of these benefits are therefore linked to the degree to which OFDI links emerging economies into international markets.

As noted above, there is a considerable literature that focuses on the relationship between OFDI and trade as a measure of the degree to which OFDI creates home country benefits. While there has been less emphasis on the relationship between OFDI and IFDI in that literature, this particular relationship has been central to the IDP literature, beginning with Dunning (1981). In Dunning’s terms, the relationship between OFDI and IFDI indicates the degree to which a country has developed the market and institutional capabilities to attract sophisticated forms of IFDI (L-advantages), and the degree to which these advantages spillover to domestic firms who then invest abroad (O-advantages). In subsequent work, Dunning et al (2001) have extended the framework to encompass trade.

Thus, from both the perspective of the literature on the home country benefits of OFDI, and from the literature on the IDP, one expects that OFDI, IFDI and trade variables will be positively correlated. It is important to recognize that a positive correlation does not imply causality. In the IDP literature, which relies on a stages of growth framework, it is not always clear whether high levels of GDP per capita cause increases in these measures of globalization or whether the latter simply increase over time, as does GDP (Liu et al, 2005). Our purpose here is not to enter that debate; rather it is to use the correlations to explore the potential differences between developing and developed economies. We argue generally that OFDI benefits are higher when OFDI is embedded in a system of complementary relationship with other measures of international activity. Thus, to the extent that the correlations among these variables are lower for developing economies, the full benefits of OFDI are not being achieved.

The results in Table 4 for the variables representing international activity (IFDI, trade, exports and imports) broadly confirm that for the developed economies, these variables are all positively correlated with OFDI. Trade, OFDI and IFDI are relatively strong complements. That is, they have positive correlations. While the complementarity
is also found in the various samples of emerging and transition economies, it is much weaker in almost all cases, and the coefficients are often not statistically significant. For the developing sample that excludes transition and BRIC countries, the results not only suggest that complementarity is weak, but also that it might be decreasing. Transition and BRIC economies apparently are closer to the degree of complementarity associated with the more developed economies. For the BRIC countries, the small number of observations makes it difficult to draw substantive inferences. For example, the negative correlation (which is not statistically significant) between IFDI and OFDI is caused by India, with below average IFDI and higher than average OFDI.

On balance, we conclude that the strong complementarities among measures of international activity that characterize developed economies are not generally characteristic of emerging economies. There is some evidence that transition and BRIC economies are possibly more integrated internationally than other developing countries. These results are supportive of the premise that governance infrastructure is a prerequisite for “deep” international economic integration that, in turn, contributes economic benefits to home economies that are directly and indirectly tied to OFDI.

Table 4 also provides correlation coefficients between Gross Fixed Capital Formation (GFCF) and OFDI. Here we are attempting to determine whether OFDI is a substitute for domestic investment. To some degree, this issue has already been addressed by the correlation of IFDI and OFDI. The implication of a strong positive correlation between IFDI and OFDI is that FDI inflows typically offset any negative effects of capital outflows. GFCF includes FDI inflows so long as they create new physical capital. Thus, FDI accomplished via acquisition would not be included in GFCF. It is therefore interesting that although we observe both positive and negative coefficients, none are statistically significant in any sample. For the purposes of this paper, what is important is that there is no evidence that OFDI and GFCF are substitutes for any of the developing economy samples (including BRIC countries for which the coefficients are not statistically significant). These results support an inference drawn earlier that OFDI is unlikely to be a significant constraint on domestic capital investment.
Strong complementarity, particularly when related to knowledge-based activities, can lead to increasing returns (Easterly, 2001). For example, to the extent that IFDI is knowledge intensive, and to the extent that it creates spillover efficiency benefits for the host economy, it will lead to increased OFDI and trade. The complementarity between OFDI and IFDI will, in turn, attract more IFDI and so on. Such a process can lead to increased disparities between countries whose initial investments are relatively high, and those whose initial investments are relatively low. Countries with low levels of OFDI may thus persist with low levels of OFDI. In terms of the IDP, they may not be able to advance to the stages characterized by relatively high levels of both OFDI and IFDI.

5.3 Regression Results

In order to investigate further the “path dependency” of the OFDI process, we undertook a simple exercise whereby current (2000-2004) OFDI flows are regressed on past (1995-1999) OFDI flows. OFDI is defined both in natural logarithms and as a percentage of GDP. The results are found in Table 5. It is useful to begin with the first set of regressions, since this is a simple first-order autoregression that has been widely used in a variety of contexts. The important result is that for both samples of developed countries, the coefficient on the lagged OFDI term is statistically different from zero, but not from unity. In other words, for the cross-sections of developed countries, OFDI flows follow a random walk, which also implies that any disturbance to the system will result in permanent effects. For example, exogenous changes that facilitate global flows of capital will raise OFDI (and IFDI) permanently.

In contrast, when the relevant coefficient is less than unity, as is the case for all samples of developing economies, the underlying process is mean reverting. That is, an exogenous shock to the system will not result in permanent changes, but will rather cause the relevant variables to return to their means in the long run. The same exogenous change that will raise permanently the OFDI of developed countries will, for developing countries, result in only a temporary increase. Thus, developing countries may lack the
capabilities to generate the levels of OFDI (and IFDI) that are associated with the developed economies.

Of course, it must be acknowledged that estimates based on cross-sectional data over relatively short periods of time may not be representative of all countries and all time periods. Thus, one should not conclude from the results that no developing countries will ever become the next Taiwan, Republic of Korea, or Hong Kong. However, it does suggest that on average, this is unlikely for most emerging economies should current circumstances persist.

Roughly the same conclusions emerge from the second set of regressions, which use the ratio of OFDI to GDP. In these equations, it is the size of the coefficient on the lagged term that matters. The relevant coefficients for the developed countries are higher than those for the developing samples suggesting that there is greater persistence in OFDI among developed countries. Developed countries with high initial ratios of OFDI to GDP tend to have high ratios in the future. On the other hand, for developing countries, there is considerably less persistence. Developing countries with initially high ratios of OFDI to GDP are less likely to see them persist in the future. In these equations, however, it is interesting to note that the sample of transition economies exhibits more persistence than does the sample of developing countries.

5.4 Summary

In summary, our empirical results confirm that, in general, emerging and transition economies receive less IFDI and generate less OFDI. Consistent with the IDP, these countries have not yet reached the highest stages of the investment cycle. Our correlation analysis indicates that, for developed countries, measures of international activity are strong complements, thereby suggesting a potential for a self-reinforcing, virtuous cycle whereby trade, IFDI and OFDI all increase over time. The same strong complementarity is not found for emerging and transition markets, suggesting that the same virtuous cycle may be absent. In addition, our regression analysis suggests that for
these countries, OFDI follows a mean-reverting process such that exogenously determined increases in OFDI are not permanent.

None of this should be taken to imply that development through globalization is therefore impossible for emerging countries. In our view, discussed more fully below, it simply implies that policies directed specifically at OFDI are likely not to be very important. Policies that limit OFDI limit the growth and competitive potential of domestic firms. Policies that encourage OFDI are, on average, not likely to succeed, unless accompanied by changes in the underlying governance of private and public sector activities. We, therefore, turn in the next section to a consideration of the determinants of governance change in emerging economies.

6. IMPACTS OF GLOBALIZATION ON EMERGING ECONOMIES

The statistical results discussed in the preceding section underscore the fact that OFDI is part of an overall process of international economic integration that includes increased trade and IFDI. For developed countries, there is a strong complementarity among variables that measure the degree of international activity; however, emerging economies are less well integrated into the global economy, and this is particularly true for OFDI. Our previous discussion suggests that emerging economies face barriers to the creation of internationally competitive firms, and thus to the realization of benefits from OFDI. In particular, the literature emphasizes the role of governance and, relatedly, absorptive capacity, as potential barriers. Therefore, we focus on this section on the potential for governance reform in emerging countries.

6.1 Globalization and Governance

Earlier, we discussed widespread concerns that have been expressed about private and public sector governance in emerging countries, and the potentially adverse consequences that diversified business groups, particularly those that are family-owned, pyramid-structured conglomerates, as well as state-owned businesses, can have in terms of truncating the benefits of international economic integration. We also noted the claims of a number of observers that globalization will lead to improvements in governance. To
the extent that such improvements occur, they could constitute one of the major benefits of globalization, particularly for emerging economies.

At the broadest level, there is now some evidence that indices of globalization are highly correlated with measures of good governance at the country level. Specifically, the Federal Reserve Bank of Dallas (2005) reports that countries that are more integrated into the global economy also have “superior” measured levels of public sector governance, where the latter is identified by a series of widely available indices including strength of property rights, accountability of public officials and rule of law. As with other correlations, caution must be exercised against inferring that globalization causes good governance, or, for that matter, the reverse causality; however, the evidence does suggest that globalization and superior public governance are complements.

The evidence reported by the Federal Reserve Bank of Dallas measures public governance at the country level. There have also been some studies examining the relationship between globalization and governance at the firm level. In one study, Khanna and Palepu (2004) evaluate whether globalization has promoted convergence towards world standards in corporate governance among Indian software companies. They focus particular attention on Infosys, one of India’s leading software companies. The authors claim that Infosys has a reputation for sound corporate governance and for being committed to shareholder value creation in a country where corporate governance has, historically, not been a first-order concern. Interviews and field research lead them to conclude that Infosys’ incentive to adopt world corporate governance standards was primarily inspired by the need to attract skilled workers who are in demand in a global labor market rather than by the need to attract financial capital.

A more direct test of whether OFDI specifically encourages governance reform is provided in a study by Bris and Cabolis (2004). They examine more than 15,000 cross-border acquisitions in the period 1990-2001 encompassing 49 countries. Specifically, they construct industry-wide corporate governance indices reflecting investor protection. Their measure of whether investor protection improves as a result of an acquisition is
whether Tobin’s Q, a valuation measure of an asset, increases. They find that when firms are acquired by firms from countries with better shareholder protection and accounting standards, the Tobin’s Q increases for the industry in which the weak governance firm participates. Interestingly, they find some weak evidence that when a firm from a country with poor corporate governance acquires a firm from a country with better corporate governance, the Tobin’s Q of the acquiring industry increases.

In another relevant study, Peng, Au and Wang (2001) evaluate whether or not there is any difference in the reliance upon interlocking directorates when comparing multinational enterprises based in Thailand to non-multinationals in that country. These authors argue that the heavy reliance upon interlocking directorships in emerging markets may derive from the need to acquire necessary financial and technical resources, particularly from developed countries. Hence, they argue that FDI should lead to closer direct management links between TNCs in emerging and developed countries. They find that Thai multinational companies do have more interlocking directorships than purely domestic companies, although the differences are modest. Moreover, the composition of the directorships with respect to nationality and ethnic origins are similar across the two sets of companies.

Palepu, Khanna and Kogan (2002) combine a variety of datasets covering corporate governance practices in 24 developing countries in Asia, Latin America and Eastern Europe, as well as data on laws protecting shareholders and creditors. Their focus is whether there is a correlation between similarities in governance practices across countries and globalization. They find strong evidence that de jure similarity in governance is correlated with several of their proxies for globalization. Further, the de jure results are not driven by similarity with U.S. corporate governance. Rather, pairs of economically linked countries display similarity to each others’ systems, especially if both countries are economically developed ones; however, they find little evidence of de
Filatotchev et. al. (2005) study the impediments to corporate restructuring of privatized firms in transition markets. In particular, they focus on the factors that entrench poor management and boards. They conclude that foreign involvement is likely to facilitate the development of organizational capabilities which might, in turn, encourage the improved international competitiveness of the firms.

The limited firm-level evidence therefore suggests that governance practices in emerging markets have not necessarily converged substantially towards practices in developed countries as a consequence of globalization. This result might reflect, in part, the fact observed in an earlier section that integration into the international economy has been relatively limited in the case of many developing countries. It might also reflect the fact that Western governance practices remain inappropriate for domestic market conditions in many emerging countries. In particular, attenuated domestic capital markets, high transactions costs in “arms-length” product and labor markets, limited resource mobility and other market imperfections contribute to the viability of family owned conglomerates and SOEs (Qian, 2001).

To be sure, governance changes have taken place in many emerging countries. Experience suggests that the contribution of globalization per se to the reform process is modest. Rather, government initiatives, in conjunction with pressure exerted by international organizations such as the IMF, have played a prominent role in the promotion of economic reforms. Corporate reform in Korea in the wake of the Asian crisis is a case in point (Woo-Cumings, 2001). The importance of internal forces in promoting changes in governance practices is also suggested by the experiences of OECD countries. As Oman and Blume (2005) note, in many of today’s OECD countries, the transformation from relationship to predominantly rules-based systems of economic

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22 There is evidence that corporate governance codes diffuse across countries, mainly developed ones, and that the impetus comes, in part, from the presence of foreign institutional investors (Aguilera and Cuervo-Cazurra, 2004).
and political governance took place largely before the rise and global spread of the large manufacturing company.

In short, changes in corporate governance may well primarily follow, rather than lead, the emergence of more efficient domestic market institutions. Furthermore, changes in domestic market institutions require political changes that are difficult to implement, particularly in countries characterized by weak public sector governance. In the latter regard, the forces of globalization may be limited in the extent to which they can encourage political change in emerging economies. To be sure, a substantial literature has emerged over time documenting the negative impact that poor public sector governance has on inward FDI, particularly in the case of emerging economies.23 One might therefore expect that competition among emerging economies for IFDI would lead to substantial improvements in public sector governance in those economies. An explanation for why governance changes have been relatively modest in light of competition for IFDI is that financial assistance provided by developed governments and non-governmental organizations (NGOs) to emerging countries has apparently not been linked to reduced government corruption. Moreover, there is some indication that private foreign investors became less concerned about government corruption in host countries after around 1995, perhaps because they have learned how to work around the risks imposed by host government legal and regulatory regimes (Groselambert and Bouchet, 2006).

Findings that public sector governance practices in emerging markets have not necessarily converged substantially towards governance practices in developed countries are not entirely surprising, since governance practices continue to differ across developed countries at comparable standards of economic development and degrees of international economic integration (van Tulder and Kolk, 2001; Doremus, et.al., 1997). The inference drawn from these findings is that national differences can sustain meaningful differences

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23 See, for example, Globerman and Shapiro (2002). An extensive review of the relevant literature is provided in Groselambert and Bouchet (2006).
in governance practices, notwithstanding ongoing international economic integration through trade, investment and other phenomena.

6.2 Managers and Corporate Strategies

Our previous discussion also pointed to a shortage of skilled managers as attenuating the capabilities of emerging markets to benefit from globalization. One consideration is that shortages of skilled managers limit the capacity of emerging economies to absorb new technology that is transferred from abroad, either through inward FDI by TNCs from developed countries, or through the transmission of technology by foreign affiliates of home country TNCs. Another consideration is that the limited use of skilled, professional management may contribute to OFDI by emerging market TNCs that has limited economic benefits, both for the TNCs, as well as for the home countries.

Observers such as Yeung (2005) argue that globalization through OFDI and other channels will inevitably result in a greater use of professional managers in both domestic companies and TNCs headquartered in emerging markets, as well as in emerging market TNCs adopting competitive strategies and practices that are similar to those of their developed country counterparts. The limited available evidence suggests that this phenomenon has also been modest, as in the case of the convergence of governance practices.

To our knowledge, there has been little published research on the degree to which the use of professional managers in emerging markets has changed over time with increased globalization, or the extent to which corporate and competitive strategies in emerging market TNCs have become more similar to those of their developed country counterparts. The limited evidence does not unequivocally point to substantive convergence in corporate and competitive strategies on the part of TNCs from developed and emerging economies. For example, Duysters and Hagedoorn (2001) focus on global companies competing in the international computer industry. They use a number of variables related to the structures and strategies of the sample companies, including
patent intensity, R&D intensity and relative share of sales outside the region of origin. Overall, they find little convergence over time across their sample of U.S., European and Asian companies. On the other hand, Russell and Shapiro (2006) find considerable convergence in strategic choices in the global mining industry including firms headquartered in emerging markets.

As another example, Lee, Roehl and Choe (2000) assess whether Korean management practices have changed over time with the increased international economic integration of the Korean economy. They conclude that there has been some convergence with Japanese management styles, although not in all relevant dimensions. There has been relatively little convergence with Western management practices. They argue that highly internationalized Korean firms were most active in learning from Japan because they have increasingly had to face severe competition with Japanese firms in many foreign markets.

6.3 Summary

The available evidence highlights the difficulties in reforming corporate and public sector governance practices in emerging markets. In particular, the globalization process, by itself, should not be expected to transform substantially political institutions and government performance which, in turn, seems to be an important pre-condition for substantial changes in corporate governance. Nevertheless, international trade agreements, as well as pressure exerted by international organizations such as the IMF, can help encourage internal “dynamics” associated with political change.

7. POLICY CONCLUSIONS

While it is not possible to quantify the impacts of OFDI on emerging economies, several prudent conclusions seem warranted. Perhaps the most unobjectionable conclusion is that there is no plausible basis for emerging country governments to restrict or discourage OFDI by home country TNCs. Specifically, there are no obvious negative externalities to the home country economy from OFDI. In particular, there is no basis for concluding that OFDI significantly restricts domestic capital formation rates in the home
country. If anything, it seems more plausible that such capital formation is mildly encouraged by OFDI.

It is more difficult to conclude that emerging country governments should actively encourage OFDI. The main point here is that external benefits to the home country economy from OFDI, while theoretically plausible, are difficult to identify empirically. It should be emphasized that higher profits realized by owners of home country TNCs do not justify public policies that subsidize, or otherwise, lower the costs of undertaking OFDI for home country TNCs. Such policies are potentially justified only if OFDI contributes to higher real income levels in the home country more generally. That is, OFDI should also contribute to increased efficiency of the home economy that is manifested in higher real income levels of those who are not owners of TNCs.

Since OFDI is a component of globalization, one would expect it to contribute to improved efficiency of the home country. This is certainly the conclusion with respect to OFDI from developed countries; however, it can be argued that the linkages between OFDI, globalization and real income growth in developing countries are not as straightforward or as significant as in the case of developed countries. In particular, the efficiency benefits of technological and knowledge transfers are attenuated in the case of developing countries by limitations in their absorptive capacity.

Rather than suggesting the advisability of specific policies to promote the benefits of OFDI, the ostensibly weaker linkages between OFDI, and the benefits of globalization point to the fundamental importance of policies focused on improving the capabilities of emerging economies and local companies to benefit from international economic integration more generally. Such policies have been extensively discussed and include obvious initiatives such as improving public sector governance, investing in education and physical infrastructure, and so forth. To the extent that changes in public sector governance play an important “gatekeeper” role to changes in corporate governance, the former might be a particularly important prerequisite to the growth of economically beneficial OFDI from emerging markets.
REFERENCES


Countries: Towards a Dynamic or Developmental Approach”, *Weltwirtschaftliches Archiv*, 119, 30-64.


Shaomin Li (2005), “Why a Poor Governance Environment Does Not Deter Foreign Direct Investment: The Case of China and Its Implications for Investment Protection”,

...


Gordon Pitts (2006), Temporary ties can stall Chinese buyers: report“, globe andmail.com, posted 24/05/06.


Yingyi Qian (2001), “Government Control in Corporate Governance as a Transitional Institution” in Joseph Stiglitz and Shahid Yusuf, eds., *Rethinking the East Asian*


### Table 1

**FDE Outflows for Selected Countries, 1983 to 1995**

United States Dollars Millions

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Source: Zaman (1998)
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Source: Bosworth (2006)

1. Austria, Belgium, Switzerland, Germany, Denmark, Spain, Finland, France, Great Britain, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Sweden

2. China, Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand. First column average for 1982-1989.

3. Argentina, Brazil, Chile, Columbia, Ecuador, Mexico, Peru, Venezuela.

4. Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, UAR, Yemen. Data as share of regional GDP.
Table 3
Descriptive Statistics for Selected Globalization Variables

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</table>

Notes to Table 3: Developed I countries are defined as the original OECD members (excluding Luxemburg); Developed II countries are Developed I plus Israel, Hong Kong, Singapore, Taiwan and South Korea; Developing Countries are as defined by UNCTAD, and exclude the least developing countries, as well as transition countries, BRIC countries (Brazil, Russia, India, China), and countries judged to be tax havens; Transition Countries are as defined by the IMF. See the Appendix for a complete list. Trade equals the sum of exports and imports.

Sources:
Table 4

Correlation Coefficients Between OFDI/GDP and Selected Globalization Variables

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<tr>
<td>IFDI/GDP</td>
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<td>0.854*</td>
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<td>0.207*</td>
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<td>0.131</td>
<td>0.205</td>
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<td>0.466*</td>
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<td>Trade/GDP</td>
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<td>0.230*</td>
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<td>0.234*</td>
<td>0.220*</td>
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<td>Imports/GDP</td>
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<td>0.534*</td>
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<td>-0.138</td>
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</table>

Notes to Table 4: Developed I countries are defined as the original OECD members (excluding Luxemburg); Developed II countries are Developed I plus Israel, Hong Kong, Singapore, Taiwan and South Korea; Developing Countries are as defined by UNCTAD, and exclude the least developing countries, as well as transition countries, BRIC countries (Brazil, Russia, India, China), and countries judged to be tax havens; Transition Countries are as defined by the IMF. See the Appendix for a complete list. Trade equals the sum of exports and imports.

* indicates statistically significant at 95%.

Sources:
Table 5
The Persistence of OFDI: Regression Results

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<tbody>
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<td>Developed I</td>
<td>lnOFDI(2000-2004) = 1.0950(^1) lnOFDI(1995-1999) - 3.5587</td>
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<td>Developed II</td>
<td>lnOFDI(2000-2004) = 1.1716(^1) lnOFDI(1995-1999) - 4.1886</td>
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<td>Transition Economies</td>
<td>lnOFDI(2000-2004) = 0.9145(^2) lnOFDI(1995-1999) + 0.7577</td>
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<td>Transition+ Developing</td>
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<td>Developing+BRIC</td>
<td>lnOFDI(2000-2004) = 0.9192(^2) lnOFDI(1995-1999) + 0.2201</td>
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<td>Developing</td>
<td>OFDI/GDP(2000-2004) = 0.6408 OFDI/GDP(1995-1999) + 0.162</td>
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Notes to Table 5:

All estimated coefficients on the lagged terms are statistically significant at 95% confidence levels.

\(^1\) indicates that the coefficient is not statistically different from unity.

\(^2\) indicates that the coefficient is statistically different from unity.
## Appendix: Country Classifications for Tables

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