

# Global Capital Flows and Development: A Survey<sup>\*</sup>

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# Global Capital Flows and Development: A Survey

*Abstract.* From a development perspective, capital flows can both provide significant benefits and entail significant costs. Consequently, the development impacts of capital flows do not readily lend themselves to simple generalizations. This survey considers the development benefits and costs of four kinds of capital flows: foreign direct investment, equity portfolio investment, bond finance, and commercial bank lending. The survey suggests that the development impacts of these flows are conditional on both their specific characteristics and the larger policy environments in which they take place. It claims short-term superiority for foreign direct investment and equity portfolio investment over bond finance and commercial bank lending, and offers a set of policy recommendations to make capital flows more development-friendly.

## 1. INTRODUCTION

Global capital flows have the potential to positively affect development processes by augmenting domestic savings and contributing to investment, growth, financial sector development, technology transfer, and poverty reduction. However, capital flows entail potential costs that are both large and disproportionately carried by the poor. From a development perspective, various types of capital flows differ in their benefit and cost characteristics. Consequently, the development impacts of capital flows do not readily lend themselves to simple generalizations. Instead, the benefit and cost characteristics of distinct types of capital flows must be considered. This paper presents a survey, from a development perspective, of four kinds of global capital flows: foreign direct investment, equity portfolio investment, bond finance, and commercial bank lending. Its main conclusion is that the development impacts of these flows are conditional upon both their specific characteristics and the larger policy environments in which they take place.

*Foreign direct investment (FDI)* is the acquisition of shares on the part of a firm in a foreign-based enterprise exceeding a threshold of 10 percent, and implying managerial participation in the enterprise.<sup>1</sup> Under the right conditions, FDI can generate direct and indirect increases in employment, promote competition, improve the training of host-country workers, and transfer technology from developed to developing countries.

It can also subject workers to unsafe working conditions, compromise the natural environment, and increase the dominance of Western culture over host-country cultures. International financial institutions emphasize the potential benefits of FDI, while those in the anti-globalization movement emphasize the potential costs, neither providing a full account of the issue. Overall, however, FDI holds a great deal of promise for developing countries.

*Equity portfolio investment* is similar to FDI in that it involves the ownership of shares in foreign countries. It differs from FDI in that the share holdings are too small to imply managerial participation in the foreign enterprise. It is thus *indirect* investment, rather than direct investment. Since equity portfolio investment reflects portfolio rather than managerial considerations, its behavior can be quite different than FDI, being more short-term in motivation. Nevertheless, being strongly associated with growth, equity portfolio investment appears to hold some promise for development.

*Bond finance* constitutes a second kind of portfolio activity in which governments and firms issue bonds to foreign investors. These bonds can be issued in either the domestic currency or in foreign currencies, and they can involve different kinds of default risks. Bond finance shares something with equity portfolio investment in that bonds are held along with equities in international portfolios. Portfolio considerations and their relatively short-term characteristics are therefore important to both. Defaults on bonds are often part of financial and balance-of-payments crises. From a development perspective, therefore, bond finance can be a mixed blessing.

*Commercial bank lending* is another form of debt. Unlike bond finance, it does not involve a tradable asset. Commercial bank loans can be short- or long-term, can be made with fixed or flexible interest rates, and can take the form of inter-bank loans. A single bank or a syndicate of banks can be involved in any particular loan package. Commercial bank lending has been widely implicated in the generation and propagation of financial crises, crises that have significant, detrimental impacts on development. Therefore, strong caution is warranted in the case of commercial bank lending, and policy in the form of prudential regulation is crucial.

While FDI can impact development outcomes directly by generating employment and transferring technology, much of the potential impact of the other capital flows on

development outcomes is indirect, taking place as part of the broad process of financial development. We take up this issue in the following section. We then consider recent trends in capital flows to the developing world. Following the consideration of the four individual categories of capital flows and their potential development impacts, we take up some key policy issues.

## **2. FINANCIAL DEVELOPMENT**

Basic considerations of international finance suggest that flows of capital from developed to developing countries can be welfare improving.<sup>2</sup> Developing countries receiving net inflows of capital can invest it at relatively high rates of return, the capital being supplied from developed countries where rates of return are relatively low. This reflects the fact that, at early stages of development, the need for capital is high, while domestic saving is low. As development proceeds, however, the need for capital slowly declines, while domestic saving slowly increases. This theoretical framework predicting net capital flows from the developed to the developing world is *highly idealized*, with a number of intervening factors inhibiting the idealized flows. These include political risk, default risk, differences in levels of human capital and technology, and differences in institutional quality.<sup>3</sup> In addition, as was first pointed out by Hymer (1976), rate of return analysis is wholly insufficient to explain FDI flows.<sup>4</sup>

Since 2000, the idealized capital flows have actually been reversed. Due in large part to a seemingly-structural, current account deficit in the United States that has exceeded 5 percent of its GDP and to the official transactions of central banks, the developing world is now an *exporter* of capital to the developed world rather than an importer. For developed countries as a whole, for example, global capital *imports* exceeded US\$300 billion in 2004. The United States actually imported approximately US\$650 billion of capital in 2004, with the capital exports of Japan, the EU, and other high income countries making up the \$350 billion difference.<sup>5</sup> Addressing fiscal imbalances in the United States is therefore of key importance to development-friendly capital flows. Sadly, there appears to be little chance of this happening in the short term.

Financial markets, both domestic and global, are an important component of economic development. Financial markets can support savings mobilization and

deployment, financial sector development, and technology transfer. They also have the potential to enhance risk management and to monitor firm performance. Empirically, there is some evidence that financial sector development helps to explain economic growth.<sup>6</sup> It appears that this occurs primarily through increased productivity and reduced external finance costs rather than through increases in savings.<sup>7</sup> The growth effects of financial sector development appear to be important for both banking and equity markets.<sup>8</sup>

Global capital flows are only one aspect of financial development, and the flows themselves are not always taken into account in growth investigations. Nevertheless, there is evidence that not all types of capital flows have the same growth impacts. For example, the results of Reisen and Soto (2001) suggest that capital inflows in the form of equity portfolio investment are more beneficial in their growth impacts than both bond finance and commercial bank lending. More generally, there is widespread agreement that financial globalization via capital flows can make effective financial development more challenging by increasing *both* benefits *and* risks.<sup>9</sup> General, across-the-board statements about the role of capital flows in financial development are thus difficult to support.

It is important to view capital flows in the context of domestic capital formation. The most important type of capital inflow into developing countries is FDI. However, on average, FDI is but a small portion of total domestic investment in developing countries. For the low- and middle-income countries in 2002, for example, FDI was less than 6 percent and 11 percent of total domestic investment, respectively. Therefore, recent increases in global capital flows have in no way lessened the importance of domestic investment and its environment in developing countries. Furthermore, residents of developing countries hold a great deal of their wealth in the form of *flight capital*. Collier, Hoeffler, and Pattilo (2001) estimate that approximately 40 percent of the private wealth of Africa and the Middle East is held by its residents outside of these regions and that the figure for Latin America is approximately 10 percent.<sup>10</sup> Consequently, any significant improvement in the investment and financial climates of the developing regions could result in a substantial repatriation of resources. This suggests that not all resources for development need to come from foreign sources.

The financial markets involved in equity portfolio investment, bond finance, and commercial bank lending are characterized by a number of well-known market failures. In normal circumstances, these imperfections tend to contribute to a certain amount of volatility. Under certain circumstances, they can lead to full-blown financial crises.<sup>11</sup> By their very nature (involving the exchange of assets), financial markets have an important inter-temporal component, and no market participant possesses perfect information about the future. Consequently, financial markets inherently involve an inter-temporal “leap in the dark,” and there is often an *asymmetry* in the information available to borrowers and lenders in which borrowers have more information about their creditworthiness than lenders.<sup>12</sup> Such asymmetries in information can be pernicious because, as a result, lender confidence tends to be pro-cyclical.

The market failure of financial markets is compounded by government failure. Like other financial market participants, governments also suffer from imperfect information, and their attempts to offer support in times of crises can provide an incentive for excessively-risky behavior in financial markets or moral hazard. Both market failure and government failure characterize markets in equities, bonds, and bank lending, and they can complicate hoped-for development effects. For example, market failure and government failure in financial markets combine in certain circumstances to generate contagion across financial instruments and countries. The key factor here is attempts by market participants to maintain liquidity.<sup>13</sup>

Imperfections in financial markets appear to be particularly problematic when commercial banks in developing countries are given access to short-term, foreign lending sources.<sup>14</sup> The resulting problems have at least three causes. First, systems of financial intermediation in developing countries tend to rely heavily on the banking sector, other types of financial intermediation being underdeveloped. Second, developing countries have been encouraged to liberalize domestic financial markets, sometimes before systems of prudential bank regulation and management are put in place. Third, developing countries have sometimes prematurely liberalized their capital accounts.<sup>15</sup> Consequently, great care must be taken in managing evolving banking systems and their access to international capital flows.

The poor are particularly vulnerable to crises because they do not have the savings or safety nets to protect themselves. It is common to consider the costs of crises in terms of the percent of GDP lost in a particular country or region. For example, Eichengreen (2004) estimated the cost of an average crisis to be approximately 9 percent of GDP for the country in question. Suryahadi, Sumarto, and Pritchett (2003) estimated that, in Indonesia alone and at the peak of the increase in poverty, approximately 35 million persons were pushed into absolute poverty during the Asian crisis. Similarly, Fiszbein, Giovagnoli, and Thurston (2003) estimated that, during the Argentine crisis of 2001, close to one fourth of the population became extremely poor, while one half of the population fell below the national poverty line. Changes in poverty of these magnitudes matter a great deal.<sup>16</sup>

While there is not complete agreement among those who have examined these issues, there is some evidence that the sequence and timing of financial sector reforms can mitigate financial turmoil and, thereby, prevent negative poverty impacts. As mentioned above, the liberalization of financial markets can strengthen the development process in the long run. However, financial liberalization without proper surveillance or prudential regulation capability tends to destabilize local financial sectors, real economies, and domestic political environments.<sup>17</sup> We return to this issue below.

### **3. RECENT TRENDS**

To understand the role of capital flows in developing countries, we need to look at their evolution over time in light of the above-described attributes of financial development. We do so here by distinguishing between low-income and middle-income countries. Figure 1 considers the net inflows into low-income countries and points to a number of important trends.

First, until the 1990s, commercial bank lending was the primary source of foreign capital for the low-income countries, although it significantly declined after the 1982 debt crisis. On a net basis, bank lending remained positive during the 1990s but then became negative in 1998 after the Asian financial crisis. This reflected the drastic decline in access to commercial bank funds suffered by the low-income countries and their continued payments of outstanding commercial bank debt. Between 1998 and 2002, there

was a net outflow of commercial bank lending from the low-income countries as a whole rather than an inflow, a situation that reversed itself in 2003.

Second, although FDI comprised a significant portion of total capital inflows to the low-income countries in the 1970s, it became even more significant in the 1990s, far exceeding commercial bank lending. Despite a slight stagnation on a net basis after the 1997 Asian crisis, FDI remains the most important source of foreign capital for the poorest nations of the world, increasing in value between 2000 and 2003. As we will emphasize below, however, these FDI flows are both small relative to the total population of the low-income countries and very unevenly distributed among them.

Third, portfolio investment in the form of both bonds and equities has been a somewhat volatile source of resources for the low-income countries. These provided significant, net positive flows for only a few years in the 1990s, and took on occasional negative values after the Asian crisis, especially in the case of bond finance. In the case of portfolio equity flows into the low-income countries, there was a substantial recovery in 2003, but it remains to be seen whether this recovery proves to be robust.

Figure 2 presents net capital flows to the middle-income countries, and these have behaved somewhat differently than those to the low-income countries. Again, in the early years, commercial bank lending was the most important source of foreign capital. This type of lending was reduced after the 1982 Mexican crisis, and FDI began to replace it in the late 1980s. As with the low-income countries, despite some stagnation after the 1997 Asian crisis, FDI currently dwarfs all other sources of capital flows to the middle-income countries. Commercial bank lending, portfolio equity, and bond finance flows were important during the 1990s.<sup>18</sup> Compared to the low-income countries, portfolio bond flows held up better after the Asian crisis and are more important for the middle-income countries than portfolio equity flows. However, on a net basis, currently none of these three capital flows have any importance relative to FDI for the middle-income countries.<sup>19</sup>

What explained the significant increase in capital flows to the developing world beginning in the 1990s? Analysts such as Calvo, Leiderman, and Reinhart (1996) and de la Torre and Schmukler (2004) typically divide explanations into internal, pull factors and external, push factors. Internal factors included improved relationships between

developing countries and their creditors, the pursuit of more sound fiscal and monetary policies, capital account liberalization, and the privatization of state-owned assets.<sup>20</sup> External factors included the decline in world interest rates that made assets in developing countries relatively more attractive for portfolio investments, recessions in major developed countries, and a growing integration of world capital markets. This last external factor involved the increased participation of global financial firms in developing country markets and the increased role of institutional investors. All of these factors changed the global capital flow regime in significant ways.

To summarize, before the late 1980s, commercial bank lending was an important source of foreign capital. Since then, however, FDI has become the most important capital flow for both the low- and middle-income countries. To a significant extent, this reflected mergers and acquisitions in response to the privatization that began in the late 1980s. FDI has become somewhat stagnant for both low and middle-income countries in recent years. However, as noted by Mody (2004), “during a period when portfolio flows boomed and then crashed, FDI remained a resilient form of external finance” (p. 1218). Commercial bank lending and portfolio bond and equity flows experienced something of a renaissance during the early 1990s but currently are not significant sources of capital for the developing world. When these flows have been significant, they have been more volatile than FDI flows.

We next turn to the individual types of capital flows and their development impacts.

#### **4. FOREIGN DIRECT INVESTMENT**

Foreign direct investment can have positive development impacts by creating employment, improving technology and human capital, and promoting competition. As Figure 3 shows, however, global flows of FDI are highly concentrated, with the low-income countries being dramatically uninvolved as FDI recipients. In 2002, for example, the low-income countries accounted for 37 percent of global population, only 10 percent of global GDP, and a mere 2 percent of global FDI. The middle-income countries are much more active as FDI recipients. In 2002, these countries accounted for 48 percent of

global population, 35 percent of global GDP, and 21 percent of global FDI. The bulk of global FDI (77 percent in 2002) is hosted by the high-income countries of the world.

The lack of involvement on the part of low-income countries in FDI flows is a major development impediment. Even the fact the low-income countries received only 2 per cent of FDI in 2002 vastly understates the problem, because this 2 percent of the total flows is itself highly concentrated among these poor countries. Just two countries, India and Vietnam received nearly one half of this 2 percent, for example. For the rest of the low-income countries, as is emphasized by Osei, Morrissey, and Lensink (2002), access to FDI is nearly non-existent. It is this reason, among others, that foreign aid continues to be important to many low-income countries.<sup>21</sup>

Many developing countries lack access to the technologies available in developed countries, and hosting MNEs from developed countries is one way to potentially gain access to that technology. There are two potential problems, however. First, MNEs will employ the technology that most suits *their* strategic needs and not the development needs of host countries. For example, MNEs can employ processes that are much more capital intensive than would be desired on the basis of host-country employment considerations.<sup>22</sup> Second, there is a strong tendency for MNEs to conduct their research and development in their home bases rather than in host countries.<sup>23</sup> Consequently, there are limits to the transfer of new technologies to host countries.

Despite these general limitations, there is evidence that, in some important cases, MNEs do transfer technology and establish significant relationships with host-country suppliers via *backward linkages*. If the foreign MNE begins to source inputs locally rather than by importing them, the host country can gain a number of important benefits. First, employment can increase since the sourced inputs represent new production. Second, production technologies can be better adapted to local conditions since suppliers are more likely to employ labor-intensive processes. Third, the MNE can transfer state-of-the-art business practices and technologies to the local suppliers. Fourth, it is possible that the local suppliers can coalesce into a spatial cluster that supports innovation and upgrading.<sup>24</sup> For instance, Moran (2001) reports that Japanese MNEs in Thailand supported Thai suppliers in gaining original equipment manufacture and replacement equipment manufacture status and that this had advantages for the Thai suppliers in terms

of both economies of scale and production technology. Similarly, Ivarsson and Claes Goran (2004) suggest that, in the case of Volvo Trucks in India, suppliers improved their technological capability through assistance from Volvo.

The key role for government in supporting backward linkages is one of *coordination*, attempting to bridge the information gaps among the players.<sup>25</sup> The government can do this in a number of different ways. First, in the realm of information, attempts can be made to provide a matching service between MNEs and local suppliers such as through linkage-promotion forums. Second, in the realm of technology, efforts can be made to provide support in standards formation, materials testing, and patent registration. In addition, foreign MNEs can be invited to be involved in programs designed to upgrade local suppliers' technological capabilities. Third, in the realm of human resource development, efforts can be made to provide technical training and managerial training. Finally, in the area of finance, obstacles to access on the part of small firms can be removed.

Another avenue through which MNEs can positively affect host economies is through spillovers to other sectors of these economies. Indeed, there is a presumption in much of the literature on FDI that MNEs provide positive spillovers in the form of technology upgrading to domestic firms in the host country. This line of thinking goes back to Caves (1974). The evidence to date suggests that such spillovers do occur in some circumstances and can be significant.<sup>26</sup> However, in the words of Blomström and Sjöholm (1999), they are not “guaranteed, automatic, or free.” For example, Haddad and Harrison (1993) and Kokko, Tansini and Zejan (1996) failed to find such effects for Morocco and Uruguay, respectively. Aitken and Harrison (1999) also failed to find such positive spillovers for the case of Venezuela. Indeed, their evidence suggests that presence of *negative* spillovers due to market-stealing effects. Blomström and Sjöholm (1999) do find positive spillovers in the case of Indonesia, attributing them to the increased competition that FDI brings.<sup>27</sup> Haskel, Pereira, and Slaughter (2002) found positive spillovers in the United Kingdom, but such evidence might not apply to the developing country context.

What determines whether positive technology spillovers will occur? Many factors are involved, including host country policies, MNE behavior, and industry characteristics.

One key factor is the capacity of local firms to absorb foreign technologies. Blomström and Kokko (2003) suggest that *learning* is a key capacity that is responsive to various host country policies, and evidence presented in Tsang, Nguyen and Erramilli (2004) in the case of Vietnam supports this view. Because learning is so important, a lack of human capital in the form of skills and education tends to prevent the generation of positive spillovers. For example, Kokko (1994) found evidence of learning barriers in Mexico in that spillovers were negatively related to the productivity gaps between MNEs and domestic firms. Additionally, Kokko and Blomström (1995) found evidence that the technology transfers of US MNEs have been positively affected by levels of education in host countries.<sup>28</sup>

There is also some evidence that MNEs offer higher wages than domestic firms. This is the conclusion of te Velde and Morrissey (2003), for example, based on evidence from five African countries. This effect is more predominant for skilled than unskilled workers. In the long run, wages depend on education and training levels, and there is some evidence that MNEs will engage in important training activities. This appears to be more likely when MNEs are large, operate in competitive environments, and are export oriented.<sup>29</sup> As with the wage effects, however, training is more likely to be directed toward skilled rather than unskilled workers.<sup>30</sup> Thus, FDI can have differential impacts that exclude unskilled workers. This can result in what te Velde (2001) refers to as the “low-income, low-skill trap.” These considerations point to the role of basic education and skills development in making the most of FDI for development.<sup>31</sup> For capital flows to be development-friendly, they cannot be divorced from the more basic issue of education and development.

Hosting FDI is not without its potential costs. For example, concern has been raised regarding the practice of transfer pricing. In the case of the United States, with more resources to martial against this practice than any other country, it has been estimated that annual losses in tax revenue are on the order of US\$50 billion (Plender, 2004). The solution to the transfer-pricing problem is not straightforward, but it is clear that a multilateral approach is the preferred solution.<sup>32</sup> Such options include: international guidelines and codes of conduct, international standardization of invoicing and customs procedures, global tax harmonization, negotiating and concluding international

conventions, and the establishment of international arbitration procedures. We return to this issue at the end of the paper when we take up policy considerations.

With regard to volatility, as argued by Sarno and Taylor (1999) and Prasad, Rogoff, Wei, and Kose (2003), FDI appears to be stabilizing. This view is reinforced by the analysis of recent trends for both the low and middle-income countries given above with reference to Figures 1 and 2. It is worth, mentioning, however, that there is dissent from this view. For example, Bird and Rajan (2002) argue that FDI was not stabilizing during the Asian crisis for the case of Malaysia. In their view, FDI is not necessarily “bolted down.” More specifically, “foreign investors can use the physical assets as collateral to obtain a loan from banks and can then place the funds abroad. In other words, the foreign investor may hedge the firm’s FDI exposure by borrowing domestically and taking short-term capital out of the country” (p. 199). Determining whether this is a more general phenomenon requires additional study.

To summarize, FDI is perhaps the most important capital flow from a development perspective. It can be a means of employment generation, especially when it takes place in labor-intensive sectors. It can also be a means of technology and management transfer, especially where effective backward linkages have been established. This gain, and its development potential, involves learning processes and these, in turn, require that minimal thresholds of human capital be met. Without advances in education, training, and health, few long-term gains from FDI will take place. FDI does have limitations from a development policy perspective. First, it is highly concentrated among developed countries and just a handful of developing countries. Second, for extractive industries (e.g., mining and petroleum), steps must be taken to ensure that the FDI is indeed development-friendly, especially in the context of weak governance mechanisms. Third, transfer pricing abuses can rob developing countries of the tax revenues they desperately need to make the very investments required for FDI to contribute positively to development.

## 5. EQUITY PORTFOLIO INVESTMENT

While there is evidence to suggest that financial development has a positive impact on growth, as mentioned above, there is also evidence that not all types of financial activity and capital inflows are the same in this regard. In particular, capital inflows in the form of equity portfolio investment might be more beneficial than both bond finance and commercial bank lending. For example, Reisen and Soto (2001) examined the impact of all four capital inflows considered here on growth for a sample of 44 countries. They found that FDI, considered above, did indeed have a positive impact on economic growth. The most positive growth impact, however, came from equity portfolio flows. Bond finance, considered below, did not have any impact on growth, and commercial bank lending, also considered below, had a negative impact. These results suggest that equity portfolio inflows, along with FDI, can play an especially positive role in growth and development processes.

Why can equity portfolio investment play such a positive role? Rousseau and Wachtel (2000) summarize research on this question with four possibilities:

- Equity portfolio inflows are an important source of funds for developing countries.
- The development of equity markets helps to provide an exit mechanism for venture capitalists, increasing entrepreneurial activity.
- Equity portfolio inflows assist developing countries to move from short-term finance to longer-term finance and help to finance investment in projects that have economies of scale.
- The development of equity markets provides both an informational mechanism evaluating the performance of domestic firms and incentives to managers to perform well.

With regard to volatility, there is some evidence that institutional investors managing equity flows are less likely than banks to engage in herd and contagion behavior.<sup>33</sup> However, there is also evidence that, under some circumstances, these behaviors do indeed appear, especially for non-resident, foreign investors who are at an informational disadvantage.<sup>34</sup> The degree of recent volatility in net portfolio equity flows to developing countries can be seen in Figure 4. The Asian crisis of 1997 had a

significant, detrimental effect on these inflows, as did the 2001-2002 recession. Recovery began in 2003, supporting significant gains in emerging market stock indices, and continued through 2004 despite equity market corrections. As noted by World Bank (2005), the increases in equity flows during 2003 and 2004 were highly concentrated regionally in East Asia, South Asia, and South Africa. The Latin America and Caribbean region actually experienced a loss. Thus, regional differences in equity flows must be borne in mind in assessing the development prospects of this type of capital flow.<sup>35</sup>

In general, equity markets are underdeveloped in much of the developing world. For example, nearly the entire net portfolio equity inflows into Sub-Saharan Africa are accounted for by one country alone: South Africa. The World Bank (2004) summarized the features of developing-country equity markets as follows:

Market capitalization as a share of GDP in low-income countries is about one-sixth of that in high-income countries. Even in the middle-income countries, the share is only about one-third of that in industrial countries. Stock exchanges in developing countries also tend to lag technologically behind developed markets. Technology plays a major role in the trading, clearance, and settlement processes; problems in those areas can discourage sophisticated investors. Institutions that supervise and support the operation of the stock exchange also tend to be weaker in developing countries (p. 95).

The development of equity markets in low- and middle-income countries is more complex than it might first appear, however. This is due to the globalization of financial services mentioned above in the section on recent trends. Observers have pointed to a set of domestic factors as being particularly important in equity market development. These factors include sound macroeconomic policies, minimal levels of technology, legal systems that protect shareholders, and open financial markets. However, as pointed out by Claessens, Klingebiel, and Schmukler (2002), these are precisely the factors that tend to promote the migration of equity exchange *out of* developing countries to the major exchanges in financial capital of developed countries. This migration process complicates standard notions of equity market development. Steil (2001) has argued that the way forward is to link local markets with global markets. However, there might remain medium-sized firms with local information needs that could benefit from some kind of domestic equity market.

Regional approaches to equity markets also hold out some promise for low-income countries. In the case of Eastern and Southern Africa, Mwenda and Muuka (2001) suggest cooperation within the Common Market for Eastern and Southern Africa (COMESA) to form a *regional* capital market in order to promote multiple listings and cross-border equity investments. Given the liquidity requirements of equity exchanges, this idea has merit. Working out the correct arrangements is an area that requires urgent attention and the development of novel approaches.

To summarize, capital flows in the form of portfolio equity hold out some promise for development. Along with FDI, these indirect equity investments appear to positively impact growth through a variety of mechanisms. Compared to commercial bank lending, contagion and herd behavior are less prevalent. However, the underdeveloped nature of equity markets in most developing countries and some degree of market volatility are two obstacles associated with global equity flows. The further development of equity financing, therefore, remains a priority from a development perspective, if a long-term one. This development needs to proceed in an open fashion that does not favor a narrow, investing elite with inside knowledge, but rather offers an open system for all medium- and large-sized firms. The development of regional equity markets among low-income countries also deserves some consideration.

## **6. BOND FINANCE AND COMMERCIAL BANK LENDING**

In the minds of the financial world, there are significant differences between portfolio equity investment and debt. This shows up in the fact that, in the case of bankruptcy, debt is given priority over equity. This tends to support the preference for debt over equity in markets, a preference that might well be misplaced from a development perspective. In this section, we consider two types of debt: bond finance and commercial bank lending. The main difference between these two forms of debt is that bonds are in the form of tradable assets. This provides more flexibility to lenders than bank lending.

As shown in Figure 5, net debt flows to the developing world have evolved markedly in recent years. Bond finance fell gradually between 1998 and 2001, and the 2003 to 2004 period showed substantial recovery in net flows to a level above the 1997 to 1998 period. That said, the World Bank (2004, 2005) identifies a number of risks with

regard to bond investment. These include interest rate increases in high-income countries, which are already beginning at the time of this writing, continued fiscal imbalances in some developed countries such as the United States, and uncertainties in the restructuring of Argentina's debt. With regard to the former risk, the World Bank (2005) warns that "The risk of an abrupt increase in U.S. interest rates remains a serious concern. Large, sudden movements in long-term rates, in particular, could provoke a sharp widening of emerging market bond spreads" (p. 21). This potential increase in bond spreads could raise the cost of capital via bond finance for the developing world.

Commercial bank lending, on the other hand, fell precipitously in 1999 on a *net* basis and did not recover through 2004. However, as seen in Figure 6, commercial bank lending on a *gross* basis is a different story. As noted by the World Bank (2005), despite declines in net lending, commercial bank lending is still used by a wide variety of developing countries: "Twice as many countries tapped this segment of the debt markets in 2004 than the bond financing segment" (p. 20). The private or corporate sector is emerging as an increasingly important borrower in this regard.

Above, we briefly analyzed market imperfections in financial markets. As we mentioned, international bank lending appears to be particularly prone to these imperfections. For example, Dobson and Hufbauer (2001) note that "Bank lending may be more prone to run than portfolio capital, because banks themselves are highly leveraged, and they are relying on the borrower's balance sheet to ensure repayment" (p. 47). The World Bank (2001) also notes that "Incentives are key to limiting *undue risk-taking* and *fraudulent behavior* in the management and supervision of financial intermediaries—especially banks that are prone to costly failure" (p. 3, emphases added).

Previous to the Asian crisis, such an assessment might have been seen as exaggerated. Indeed, the pre-crisis data examined by Sarno and Taylor (1999) provided a relatively sanguine conclusion about commercial bank lending. Subsequent events, however, showed otherwise. Much of the debt involved in the Asian crisis was composed of short-term, inter-bank loans. As emphasized by Rajan, Siregar, and Sugema (2003), a significant portion of pre-crisis capital inflows into the region were channeled through the commercial banking sector. As we saw in Figures 1 and 2, net commercial bank lending flows quickly became negative for both the low and middle-income countries after 1997.

Indeed, Goldstein, Kamnsky, and Reinhart (2000) included short-term capital flows (most of which are inter-bank commercial lending) as a significant predictor of future financial crises based on a broad sample of countries.

What can be done to support the safe development of banking sectors in developing countries? Some of the necessary steps can be thought of in terms of “three i’s”: information, institutions, and incentives. With regard to *information*, it is important for banks to embrace internationally-sanctioned accounting and auditing procedures and to make the results of these assessments available to the public. With regard to *institutions*, risk management practices (both credit and currency) must be sufficiently stringent, and prudential regulation systems must be well developed. In the case of currency risk, particular care needs to be taken to ensure that foreign-currency liabilities are both appropriately and sufficiently hedged.<sup>36</sup> These information and institutional safeguards are no small task and inevitably cannot be achieved in the short term.<sup>37</sup> Consequently, they should be buttressed with *incentive* measures in the form of market-friendly taxes on banking capital inflows, sometimes known as variable deposit requirements (VDRs). For example, Eichengreen (1999) argues that “banks borrowing abroad should be required to put up additional noninterest-bearing reserves with the central bank” (p. 117). Such taxes on short-term capital inflows appear to be important to prevent destabilizing episodes of over-borrowing described by McKinnon and Pill (1997).<sup>38</sup>

To summarize, debt flows in the form of bond finance and commercial bank lending appear to have different properties than equity flows in the form of FDI and portfolio equity investment. They are more prone to the imperfect behaviors that characterize financial markets and do not appear to have positive growth effects as large as those associated with equity flows. Consequently, utilization of debt finance must be cautious and sufficiently hedged against exchange rate risks.

## **7. POLICY CONSIDERATIONS**

The effectiveness of capital flows in fostering development depends, in large measure, on the national and global poverty environments in which they take place. While much of the past two decades of international economic policymaking has focused on market

liberalization of various kinds, effective policymaking is still central.<sup>39</sup> In what follows, we briefly consider five areas in which policy can make private, market transactions in capital more development-friendly. These are: enhanced voluntary standards for multinational enterprises, debt relief, a heterodox approach to capital account reform, continued efforts at prudential regulation, and re-establishing global capital balance.

### **7.1 Enhanced voluntary standards for multinational enterprises**

The polarization of policy discussions with regard to globalization and development appears with some intensity in the case of the role of MNEs. As discussed in this paper, however, the actual relationship between FDI and development is more subtle and complex than alleged relationships. FDI can promote development to widely varying degrees and, in the case of extractive industries in corrupt governance systems without adequate safeguard mechanisms, can actually hurt development prospects. In an ideal world, MNEs would be subject to a small set of binding, *de minimus* requirements in order to eliminate the most egregious abuses on the part of MNEs in the areas of forced labor, transfer pricing, environmental degradation, corruption, and health and safety.<sup>40</sup> Unfortunately, even the United Nations Conference on Trade and Development, historically “out front” on the standards issue, is reluctant to pursue such binding commitments. Therefore, the most promising approach is perhaps to be found in the OECD’s Guidelines for Multinational Enterprises.<sup>41</sup>

The OECD guidelines currently have the formal backing of 30 OECD members and nine non-members. However, they need to be enhanced in at least two ways.<sup>42</sup> First, national contact points need to be significantly strengthened to make it more feasible for groups of various kinds to lodge complaints. It is ironic that national contact points are mandated under the WTO’s Agreement on Trade Related Intellectual Property Rights but not for MNE behavior, despite the fact that there is substantial evidence that increased protection of intellectual property can be welfare-reducing in the short run. Second, OECD complaint procedures need to be speeded up and made more transparent. A more robust and swift mechanism can be loosely modeled on the WTO’s dispute settlement mechanism, for example.

Enhanced voluntary guidelines, by helping to alleviate the most egregious abuses by MNEs, will both help prevent a backlash against MNEs and FDI and promote their development potential.

## **7.2 Debt relief**

Despite some efforts on the part of multilateral financial institutions, debt levels remain critical for many of the world's poorer countries, entailing significant development costs. In many countries, for example, debt service is multiples of what governments spend on health and education. This is clearly a low-level equilibrium trap with very poor development dynamics. The World Bank and the IMF have done what they can under the Highly Indebted Poor Country (HIPC) initiative, but this has proved to be insufficient. It is clearly time for a new approach. One promising suggestion is that of the G-8 countries who have recently proposed the cancellation of the debt of the world's poorest 30 countries. Some have suggested that this could be achieved through a revaluation and sale of IMF gold reserves. If approached cautiously so as not to destabilize markets, this approach does hold out real promise and should be pursued. The urgency in this matter is great and calls for action in the *very near term*. The June 2005 G-8 "Agreement" on debt relief appears to hold out some promise in this regard. Success will allow for new capital inflows, particularly in the area of bond finance.

## **7.3 A heterodox approach to capital account reform**

The recommended policy of international financial institutions with regard to capital accounts has been uneven. In late 1997, the IMF considered making capital account liberalization an explicit policy goal to be part of its Articles of Agreement. However, there is a distinct lack of consensus on this matter among prominent international economists.<sup>43</sup> What is currently lacking at the moment is some sense of "best practice" with regard to capital account reform. For this reason, the global policy community needs to maintain a tolerant and heterodox posture towards the issue. As we discussed above, and as has been evident in cases such as the Asian and Argentina crises, mistakes made in this area have devastating consequences for poverty levels, education, and health. The identification, adoption, and diffusion of best practice here can play an important role in preventing future crises of this kind and help to reduce levels of flight capital. However, in the absence of best practice, it does not make sense to force

countries into a one-size-fits-all mold. With regard to capital account and accompanying financial-sector liberalization, it makes sense to err on the side of caution in order to prevent costly crises, allowing for market-friendly policies such as VDRs.

#### **7.4 Continued efforts at prudential regulation**

Prudential regulation remains an important component of finance and development, particularly with respect to commercial banking. Rajan and Bird (2001) have made a useful distinction between financial *liberalization* and financial *reform*:

A well-functioning market economy does *not* mean no government intervention; financial globalization requires the government's role to be shifted from that of an active participant (through, for instance, state ownership of banks and other monopolies) to acting as an independent, objective "mediator," "rule maker" and "enforcer." To this end a strong and independent bank supervisory function free from political interference is essential, as also the establishment of a comprehensive regulatory and supervisory framework.... Measures here include limiting bank exposures to the property sector, strengthening lending guidelines, and ensuring that international banking and accounting standards are met (p. 364).

As discussed above, the commercial bank sector in the context of liberalized capital accounts can be a central locus of instability. This needs to be both recognized and addressed. Extensive capital account liberalization, particularly in short maturities, must be preceded by a minimal system of prudential banking regulation that is supported by all multilateral and regional financial institutions. This is particularly important given the resurgence of gross commercial bank lending flows noted above and depicted in Figure 6.

#### **7.5 Re-establishing global capital balance**

As discussed above, the developing world currently supplies approximately US\$300 billion annually in capital to the developed world. At the center of this imbalance are the United States and China, and restoring global capital balance requires action by both of these countries. In order to free up capital for development, the United States must address its fiscal imbalance in the near term. Sadly, there appears to be a distinct lack of political leadership on this issue, despite repeated admonitions by the multilateral financial institutions. China must continue to introduce more flexibility into its currency arrangements. The July 2005 move to a currency-basket peg, despite the very modest revaluation involved, was the correct step. Further moves towards a managed

float must eventually take place. It needs to be emphasized that a move to managed floating does *not* necessitate that China remove its capital controls. In fact, keeping these controls in place is probably wise given fragility in the Chinese banking system. There is, therefore, less concern about stability in introducing flexibility into China's currency arrangements than is often alleged. Also, given the relatively small size of China's overall trade surplus as a percent of its GDP, one needs to be careful not to claim too much for what increased exchange rate flexibility can realistically achieve.

## **8. SUMMARY**

This paper suggests that the capital flows with the greatest potential contribution to development are equity flows, both foreign direct investment and equity portfolio investment. Equity-related finance brings with it risk-sharing benefits and is less subject to the sudden stops and reversals of debt flows. In the case of FDI, this is in part due to the role of retained earnings and the need for new inflows to offset depreciation. More importantly, however, its behavior is more managerial than financial. This both provides stability and introduces benefits in the form of learning and human capital formation. In the case of equity portfolio investment, there appear to be additional managerial and entrepreneurial benefits that are also less volatile than debt flows.

Despite a short-term preference for equity flows, the *long-term* trend of financial development is probably towards a mix of all four of the capital flows considered in this paper. In the short term, most developing countries are constrained by the availability and cost of different capital flows and therefore do not have a choice regarding their capital flow mix. In the medium term, however, their policies can yield some minimal influence over both availability and cost. Choices can therefore expand.

Currently, many low-income countries find themselves relying primarily on commercial bank lending and, perhaps, FDI in the petroleum or minerals sector.<sup>44</sup> Many middle-income countries find themselves relying on a mix of commercial bank lending, bond finance, equity portfolio investment, and FDI. These would be more heavily weighted towards commercial bank lending and FDI than to bond finance and equity portfolio investment. As financial development proceeds, there tend to be a move to a balanced mix of all four capital flows. Maintaining this position in a stable way requires

that the financial development of the country be properly designed to mitigate market imperfections. As noted by Fernandez-Arias and Montiel (1996), “the possibility that capital inflows may be welfare reducing does not mean that they are *invariably* harmful” (p. 57, emphasis added).

If there is any convergence in the emerging literature on capital flows in the developing world, it concerns absorptive capacity, which acts as a set of necessary conditions for potential development-enhancing effects. That is, for capital flows to positively help in development processes, a number of things must be true. First, human capital must be developed. Without it, the hoped-for, positive spillovers from FDI will not emerge. Second, the domestic financial markets must be “deep” enough (either locally or regionally) to support liquidity. Without liquidity, volatility will always be problematic. Third, systems of oversight and regulation of domestic financial markets must be developed enough to prevent excessive volatility and crises. Fourth, levels of corruption should be relatively low.<sup>45</sup> Each of these conditions takes some time to fulfill. Until they are achieved, caution is warranted. As concluded by Hanson, Honohan, and Majnoni (2003), “the globalization of finance is not an unmixed blessing, but it appears to be inexorable” (p. 25). Capital flows are an “inexorable” aspect of financial globalization, which have potential benefits *and* costs that are significant. Since the poorest are particularly vulnerable to the potential costs, any errors in managing capital flows should be on the side of caution.

What role should future research play in elucidating the role of global capital flows in economic development? It is useful to consider this question from the perspective of each of the four types of flows considered in this paper. In the case of FDI, as pointed out by Lin and Saggi (2005), there needs to be an increased focus on the role of technology transfer in backward linkages. As these authors further point out, this issue needs to be investigated within the context of the contractual relationships between MNEs and their suppliers. It is difficult to see how these issues can be more fully understood without resorting to extensive case studies.

In the case of portfolio equity flows, we have the insights of Rousseau and Wachtel (2000), listed above in this paper, regarding the positive roles this sort of investment can play in development. Each of these insights relates to the broader issues

of the role of equity markets in enterprise development. Two key issues to be further investigated are: the role of specifically *foreign* portfolio equity investment in enterprise development, and the potential design and facilitation of regional equity markets in successfully attracting this foreign investment. The former issue can be addressed both econometrically and through case study analysis, while the latter requires creative institutional design.

With regard to bond finance, reflecting the work of Prasad, Rogoff, Wei and Kose (2003), more econometric inquiry into the relationship between the term and currency structure of debt and development outcomes is needed, both with regard to domestic investment and market volatility. These results could be related to the effective design of VDRs. In addition, less-formal, event analysis can track the relationship between ongoing debt relief and access to bond finance.

Finally, in the case of commercial bank lending, the highest priority has been and continues to be the effective design of prudential regulation systems, in varied financial environments, to effectively shield vulnerable populations from crises. This would require revisiting past attempts in this area, both relative successes and failures, to glean insights into potential regulatory regimes. No doubt, these must be variegated, since risk environments are not uniform across developing countries.

As these few suggestions indicate, the field of global capital flows and development will continue to be an important and fruitful area of inquiry for researchers in international economics, development economics, and finance. It will form an important part of our evolving understanding of globalization and development.

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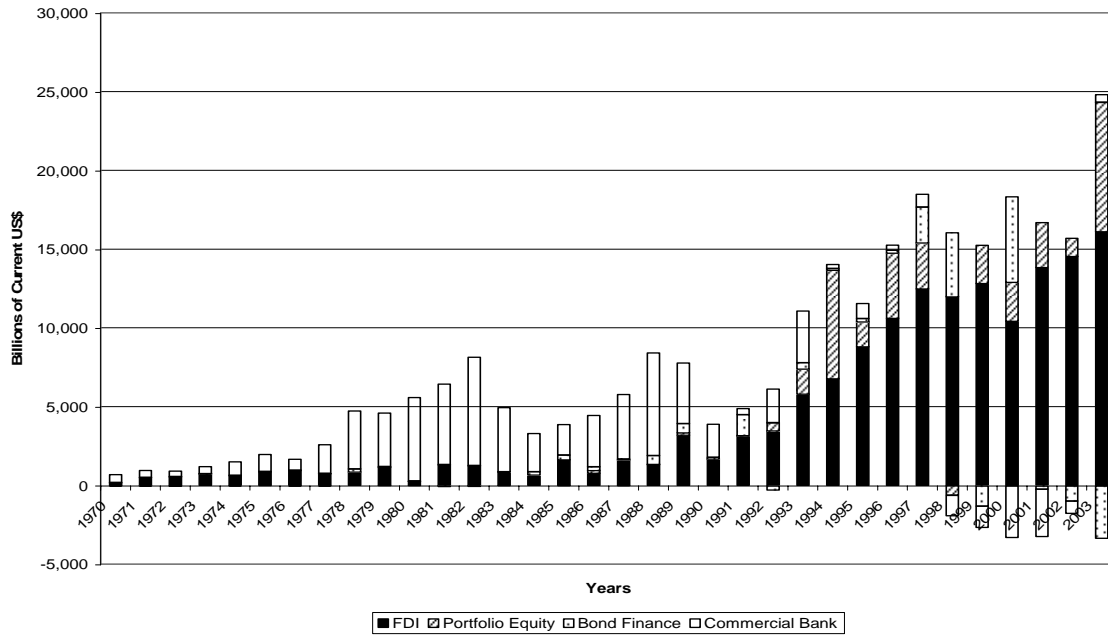
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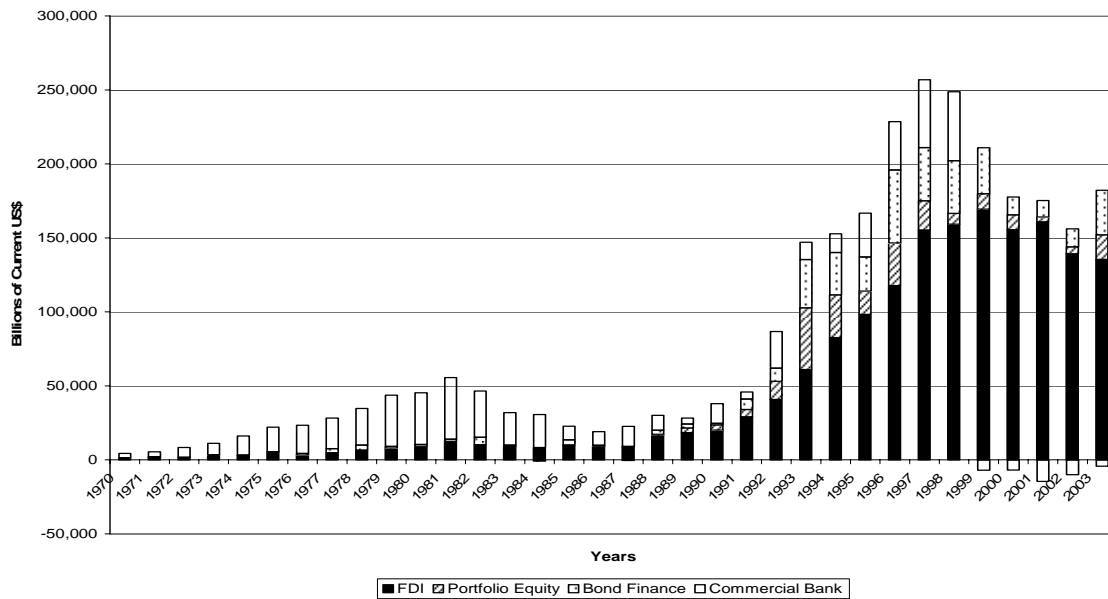
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Figure 1 Net Private Capital Flows to Low-Income Countries, 1970-2003



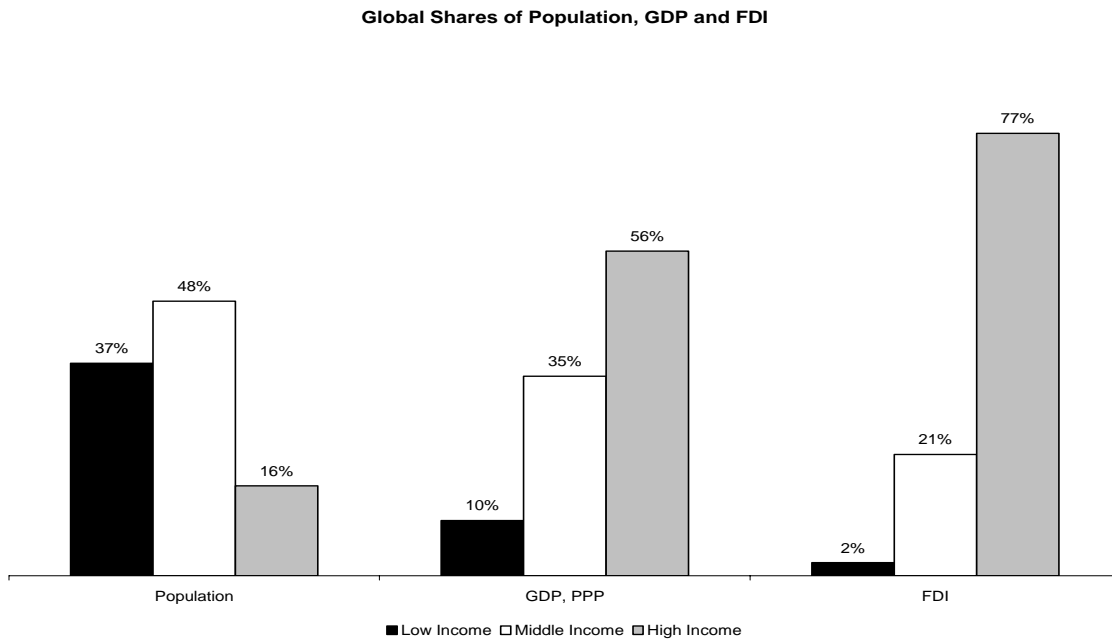
Source: World Bank, *World Development Indicators*

Figure 2 Net Private Capital Flows to Middle-Income Countries, 1970-2003



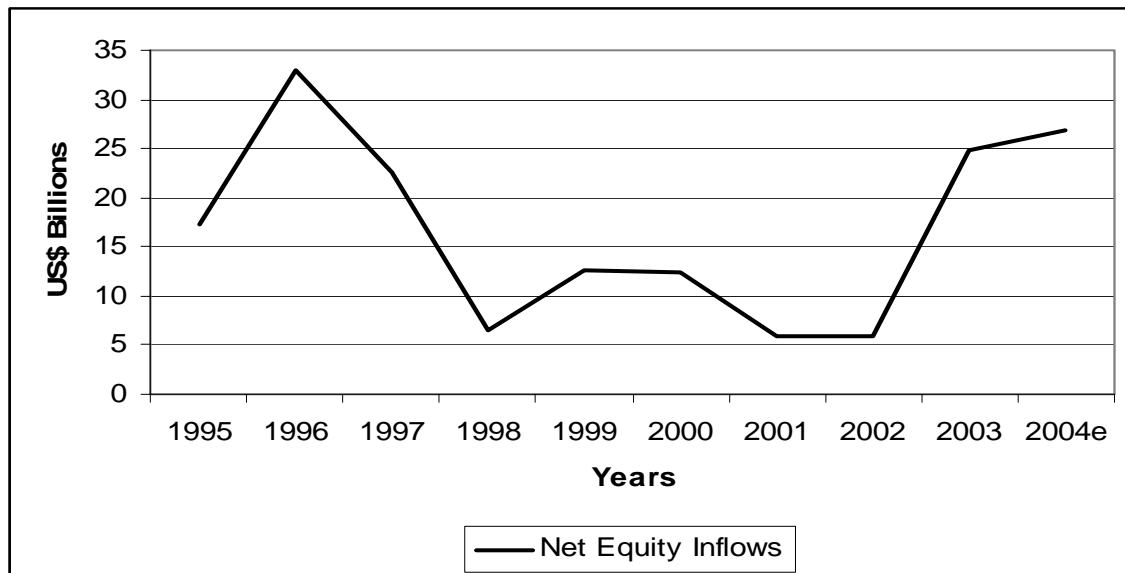
Source: World Bank, *World Development Indicators*

Figure 3 Global Shares of Population, GDP, and FDI, 2002



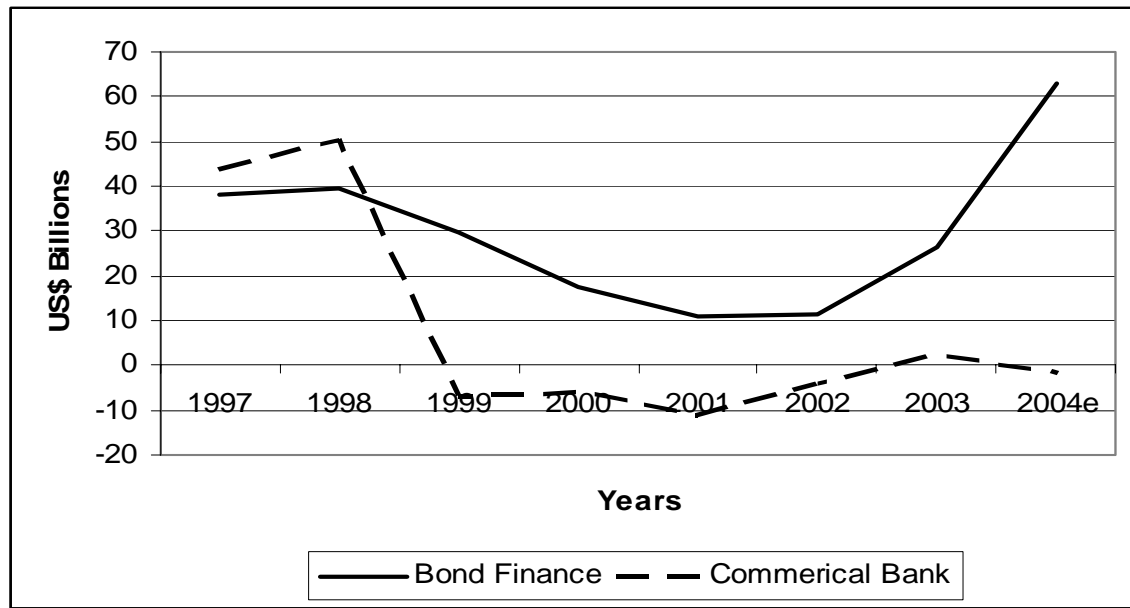
Source: World Bank, *World Development Indicators*

Figure 4 Net Inward Portfolio Equity Flows to Developing Countries, 1995-2004



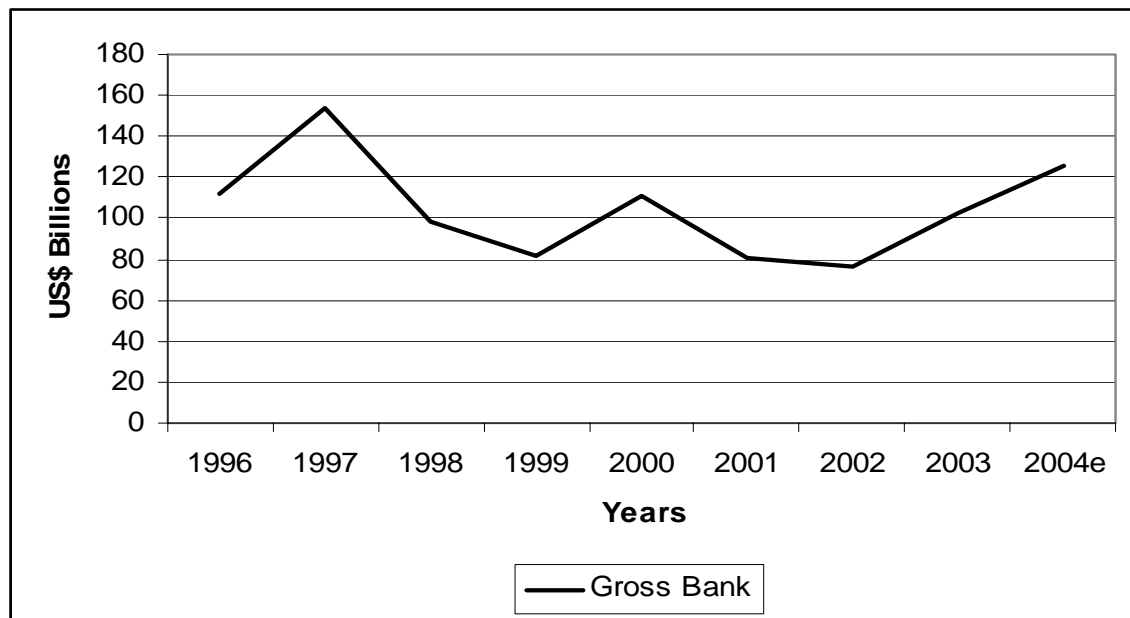
Source: World Bank (2004, 2005). Note: “e” refers to estimate.

Figure 5 Net Inward Debt Flows to Developing Countries, 1997 to 2004



Source: World Bank (2004, 2005). Note: “e” refers to estimate.

Figure 6 Gross Inward Bank Lending, 1996 to 2004



Source: World Bank (2004, 2005). Note: “e” refers to estimate.

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<sup>1</sup> The precise definition of the World Bank's *World Development Indicators*, for example, is "lasting interest in or effective managerial control over an enterprise in another country."

<sup>2</sup> See, for example, Taylor and Williamson (1994).

<sup>3</sup> These points were emphasized by Lucas (1990).

<sup>4</sup> This insight was reviewed at some length in Chapters 1 and 2 of Caves (1996).

<sup>5</sup> See World Bank (2004, 2005). The World Bank (2005) notes that "The buildup of foreign exchange reserves in the hands of developing countries' central banks and monetary authorities—and its use in financing global payment imbalances—marks a new phase in the postwar system for financing international payments" (p. 59).

<sup>6</sup> This possibility was discussed in Pagano (1993), and evidence was provided by King and Levine (1993).

<sup>7</sup> As the World Bank (2001) notes, "Rigorous and diverse econometric evidence shows that the contribution of finance to long-term growth is achieved by improving the economy's total factor productivity, rather than on the rate of capital accumulation" (p. 6). On productivity effects, see Beck, Levine, and Loayza (2000). This research supports the Schumpeterian view the role of finance in development (after Schumpeter, 1934). On external finance effects, see Rajan and Zingales (1998). In the African case, and in contrast to the standard econometric results, Bhinda, Griffith-Jones, Leape, and Martin (1999) suggested that capital flows *did* have a positive effect on investment during the 1990s, although they acknowledge that causality is difficult to establish.

<sup>8</sup> See Levine and Zervos (1998).

<sup>9</sup> For example, the World Bank (2001) notes that "Globalization... challenges the whole design of the financial sector, potentially replacing domestic with international providers of some of these services, and limiting the role that government can play—while making their remaining tasks that much more difficult" (p. 1). See also Calvo, Leiderman, and Reinhart (1996).

<sup>10</sup> Bhinda, Griffith-Jones, Leape, and Martin (1999) stressed the role of liberalization and reform in Africa in the return of some flight capital during the 1990s.

<sup>11</sup> A useful reviews of the economic literature on crises can be found in Appendix B of Eichengreen (1999). For example, Chang and Velasco (1999) show that, for portfolio capital and commercial bank lending, small changes in confidence levels can be associated with large changes in flows. For a specific focus on the role of exchange rate regimes in crises, see Cordon (2002).

<sup>12</sup> See, for example, Stiglitz and Weiss (1981) and Williamson (1987). For the role of asymmetric information in influencing institutional investors, see Frenkel and Menkhoff (2004).

<sup>13</sup> The role of contagion in private capital flows is taken up by Hernandez, Mellado, and Valdes (2001).

<sup>14</sup> This point was emphasized and analyzed in some detail by Eichengreen (1999).

<sup>15</sup> For a critique of premature capital account liberalization, see Stiglitz, (2000). Hanson, Honohan, and Majnoni (2003) also note that "the riskiness of capital account liberalization without fiscal adjustment..., and without reasonably strong financial regulation and supervision and a sound domestic financial system, is well recognized" (p. 10). These points were emphasized in the African case some time ago by Lipumba (1994).

<sup>16</sup> Even short of actual crises, there is some reason for concern about the potentially negative impact of capital flows on the poor. For people at or near poverty lines, any volatility in consumption can be quite detrimental or even disastrous. From a theoretical point of view, capital flows can reduce the volatility of consumption by de-linking it from national output volatility. Unfortunately, there is empirical evidence that increased financial integration though expanding capital flows can increase rather than decrease consumption volatility in developing countries. See Prasad, Rogoff, Wei, and Kose (2003) and Kose, Prasad, and Terrones (2003).

<sup>17</sup> These risks are all the more significant when countries are characterized by "currency mismatches" in which assets are denominated in the local currency and liabilities in foreign

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currencies. Consequently, net worth is directly tied to the value of the local currency. On this issue, see Jeanne (2000), Eichengreen, Hausmann, and Panizza (2003), and Goldstein and Turner (2004). As noted by Eichengreen (2004), “Currency mismatches are widely implicated in financial crises in developing countries” (p. 27).

<sup>18</sup> Chuhan, Claessens, and Mamingi (1998) examine some factors behind bond and equity flows to Latin America and Asia during the late 1980s and early 1990s. They suggest that equity flows tend to respond to price-earnings ratios and relative rates of return, while bond flows tend to respond to credit ratings and debt prices in secondary markets.

<sup>19</sup> One potential point of confusion can arise in interpreting Figures 1 and 2. As we explained above in the section on financial development, beginning in 2000, the developing world became an *exporter* of capital to the developed world rather than an importer. The *private* capital inflows of Figures 1 and 2 have been offset by *official* capital outflows that take place through the actions of central banks, especially in the case of the middle-income countries.

<sup>20</sup> de la Torre and Schmukler (2004) note that privatization proceeds in developing countries increased from US\$ 2.6 billion in 1988 to US\$ 25.4 billion in 1996.

<sup>21</sup> For a review of the development impacts of foreign aid, see Goldin, Rogers, and Stern (2002).

<sup>22</sup> There has been a long-standing inquiry into this issue, the results of which were summarized by Caves (1996): “Survey evidence indicates that MNEs do some adapting (of technologies to labor-abundant conditions), but not a great deal, and it appears that the costs of adaptation commonly are high relative to the benefits expected by individual companies” (p. 241).

<sup>23</sup> “With the exception of some European-based companies, the proportion of R&D activity by MNEs undertaken outside their home countries is generally quite small and, in the case of Japanese firms, negligible” (Dunning, 1993, p. 301).

<sup>24</sup> Clusters were effectively reviewed by Malmberg, Sölvell and Zander (1996).

<sup>25</sup> See Battat, Frank, and Shen (1996) and United Nations Conference on Trade and Development (2001).

<sup>26</sup> Evidence presented by Hejazi and Safarian (1999) indicate that spillovers for research and development are more important for FDI than for international trade.

<sup>27</sup> The Indonesian case is also examined by Okamoto, and Sjöholm (2005) with somewhat ambiguous results.

<sup>28</sup> One can distinguish, as Lall (1998) does, between *basic learning* and *deep learning*. The required complementary education and training policies differ in these two instances. “In early stages of industrialization, when skill needs are fairly low and general, the correct policy is functional support for schooling and basic vocational training. In later stages, with more complex activities and functions, skill needs grow more demanding, diverse, and specific to particular technologies” (Lall, 1998, p. 68).

<sup>29</sup> See te Velde (2001) and references therein.

<sup>30</sup> See Tan and Batra (1995), for example.

<sup>31</sup> Borenszteirn, De Gregorio, and Lee (1998) find that it is the *combination* of FDI and education that has a statistically significant impact on growth.

<sup>32</sup> Unilateral policy options exist, but “because there is competition for MNE activity between home and host countries, and between different host countries, the opportunities for MNEs to play one nation against another are enhanced without the establishment of supra-national institutions and harmonized inter-governmental action towards (transfer pricing)” (Dunning, 1993, p. 523).

<sup>33</sup> This evidence is reviewed in Chapter 1 of Dobson and Hufbauer (2001).

<sup>34</sup> For the case of Korea, see Choe, Kho and Stulz (1999) and Kim and Wei (2002).

<sup>35</sup> The evidence on the role of global capital-market integration on equity market *prices*, as opposed to flows, is more mixed. For example, Asian equity markets recovered values fairly quickly after the 1997 crisis. More to the point, and as noted by the World Bank (2001), “There is

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no clear theoretical presumption as to whether local stock prices will be more or less volatile after integration into the world market. Integration should insulate the prices from shocks that affect the nonmarket wealth or savings behavior of local investors, but could expose them more to fluctuations in world asset prices and to shifts in external investor preferences” (p. 173). There appears to be no clear evidence as to one or the other of these two influences dominating in practice. See also Hanson, Honohan, and Majnoni (2003).

<sup>36</sup> Mistakes made in these areas have proved to be too costly in the past for countries to relax their vigilance. Prasad, Rogoff, Wei and Kose (2003) conclude that: “The relative importance of different sources of financing for domestic investment, as proxied by the following three variables, has been shown to be positively associated with the incidence and the severity of currency and financial crises: the ratio of bank borrowing or other debt relative to foreign direct investment; the shortness of the term structure of external debt; and the share of external debt denominated in foreign currencies” (p. 49). See also Chapter 14 of Corden (2002) on what he terms the “unhedged foreign-currency-denominated borrowing (UFB) problem.”

<sup>37</sup> Eichengreen (1999) notes that “the sad truth in all too many countries is that banks have a limited capacity to manage risk and that regulators have limited capacity to supervise their actions” (pp. 11-12).

<sup>38</sup> As emphasized by Bhinda, Griffith-Jones, Leape, and Martin (1999), VDRs are flexible in three dimensions: percentage, minimum deposit period, and application to new versus existing credits. These flexibilities, as well as their market-friendly nature, make VDRs an attractive policy option.

<sup>39</sup> A recent history of the evolution of ideas in international economic policy is given in Lindauer and Pritchett (2002).

<sup>40</sup> There have been many proposed guidelines regarding the behavior of MNEs. For an early review, see Chapter 21 of Dunning (1993). Currently, these include (but are not limited to) the United Nations Human Rights Commission’s Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises, the United Nations’ Global Compact, and the OECD’s Guidelines for Multinational Enterprises.

<sup>41</sup> See OECD (2003).

<sup>42</sup> In the case of forced labor, the OECD guidelines can be further bolstered in the trade realm by generalizing the World Trade Organization general exception for the case of prison labor (GATT Article XXe) to all forms of forced labor.

<sup>43</sup> Former IMF Managing Director Stanley Fischer (1998) argued in favor of capital account liberalization. However, Jagdish Bhagwati (1998), Dani Rodrik (1998), Paul Krugman (1999), Barry Eichengreen (1999), Kaplan and Rodrik (2001), and Joseph Stiglitz (2000) all strongly questioned the goal of capital account liberalization and called for capital controls of one kind or another. These range from market-friendly taxes on short-term capital inflows (Eichengreen, 1999) to more stringent controls on capital outflows (Kaplan and Rodrik, 2001). For a recent discussion in the context of poverty reduction, see Cobham (2002).

<sup>44</sup> These low-income countries typically also rely on foreign aid.

<sup>45</sup> According to the results of Wei (2000), corruption has a tendency to bias capital flows away from FDI and towards commercial bank lending.