

Capital Flows to Developing Countries: Blessing or Curse?

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The surge of private capital flows to developing countries that occurred in the 1990s has been the most significant phenomenon of the decade for these countries. By the middle of the decade many developing countries in Asia and Latin America were awash with private foreign capital. In contrast to earlier periods when the scarcity of foreign capital dominated economic policy-making in these countries, the issue now for governments was how to manage the large-scale capital inflows to generate higher rates of investment and growth.

While a number of developing countries were able to benefit substantially from the private foreign financing that globalisation made available to them, it also became apparent that capital inflows were not a complete blessing and could even turn out to be a curse. Indeed, in some countries capital inflows led to rapid monetary expansion, inflationary pressures, real exchange rate appreciation, financial sector difficulties, widening current account deficits, and a rapid build-up of foreign debt. In addition, as the experience of Mexico in 1994 and the Asian crisis of 1997-98 demonstrated, financial integration and globalisation can cut both ways. Private capital flows are volatile and eventually there can be a large reversal of capital because of changes in expected asset returns, investor herding behaviour, and contagion effects. Such reversals can lead to recessions and serious problems for financial systems.

This paper examines the characteristics, causes and consequences of capital flows to developing countries in the 1990s. It also highlights the appropriate policy responses for governments facing such inflows, specifically to prevent overheating of the economy, and to limit the vulnerability to reversals of capital flows.

I. INTRODUCTION

It is a fundamental premise of the standard development model that developing countries face a scarcity of capital and, thus, should be net foreign borrowers during the development process. This concept has been formalised in a host of studies showing how countries can attain a higher growth path by supplementing domestic savings with foreign capital.¹ This paradigm has guided policy in developing countries in most of the

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¹See, for example, Bardhan (1967); Hamada (1969) and the survey by McDonald (1982).

post-World War II period. Being capital constrained, developing countries continually sought to attract private and official foreign capital, and usually were not fully successful. Many, if not most, of these countries were thus unable to achieve the desired investment and growth rates.

In the 1990s, however, the picture changed quite dramatically. After the debt crisis of 1982–89, significant flows of private financial capital started to move from industrial countries to developing countries. Although there has been considerable variation among countries in the timing, duration, size, and composition of the surge in capital flows, it is clear that the inflows reflected both domestic and external factors. The former included improved economic performance and structural reforms in recipient countries, whereas the latter involved cyclical movements in interest rates in industrial countries and portfolio shifts by institutional investors towards emerging markets.

The heightened interest of foreign investors in the potential returns in developing countries has led to increased financial integration with considerable benefits for individual countries and the global economy. It is now well accepted that financial integration, or “globalisation”, boosts growth in developing countries by increasing investment and consumption. It also reduces the volatility of consumption by augmenting the opportunities for risk diversification and by allowing international borrowing to offset temporary declines in income resulting from exogenous shocks.

By the mid-1990s many developing countries were awash with private foreign capital and the old development paradigm was being questioned, if not altogether rejected. It appeared that these developing countries were now in a new world in which foreign capital was plentiful and economic development depended on how governments could best utilise capital inflows to generate investment and growth. However, it soon became apparent that large capital inflows are not a complete blessing, and could even turn out to be a curse. Unless managed carefully, capital inflows can result in rapid monetary expansion, inflationary pressures, real exchange rate appreciation, increased risks for the financial sector, and widening current account deficits. In addition, as the experience of Mexico in 1994 and the Asian crisis of 1997–98 starkly demonstrate, financial integration as part of globalisation can lead to greater volatility and to large reversals of capital flows because of changes in expected asset returns, herding behaviour by investors, and contagion effects.

The surge in capital flows to developing countries that started around 1990 has given rise to outpouring of papers dealing with the characteristics, the causes, and the consequences of these flows.² This literature has also dealt extensively with the appropriate policy responses—how to prevent overheating of the economy, limit vulnerability to reversals of capital flows, and more generally, how to design macroeconomic and structural policies consistent with increasing globalisation.

²See, for example, Calvo, Reinhart, and Leiderman (1993, 1994, 1996); Fernandez-Arias and Montiel (1996); Folkerts-Landau and Ito (1995); Khan and Reinhart (1995) and Schadler *et al.* (1993). For a recent comprehensive survey, see López-Mejía (1999).

The purpose of this paper is to examine the main issues relating to the large-scale flows of private capital to developing countries. The paper starts by looking at the magnitude, composition, and regional destination of these flows (Section II). Sections III and IV outline the causes and consequences of these flows, respectively. Section V describes and evaluates the policy responses of recipient countries. Section VI takes up the issue of capital flow reversals, a phenomenon that currently many countries, particularly those in Asia, are facing. The final section presents the lessons learned about capital flows to developing countries from the experience in the 1990s.

II. CHARACTERISTICS OF CAPITAL FLOWS IN THE 1990S

What were the main characteristics of capital flows to developing countries in this decade? This section discusses in turn their magnitude, regional and country destination, and composition.

Net private capital flows to developing countries during the 1990s have increased spectacularly. As shown in Table 1, by 1996 they were \$205 billion, that is about five times larger than the annual average inflow observed during the 1980s. For the period 1990–97, the inflows averaged \$150 billion per year, as compared to \$44 billion annually during 1984–89 and \$40 billion a year in 1977–83. Moreover, private capital flows in the 1990s accounted for more than 80 percent of total flows, whereas at the start of the decade they only represented about 50 percent.

The magnitude of the recent surge of capital inflows has not been uniform across all developing-country regions. Indeed, five countries—China, Brazil, Mexico, Korea, and Thailand—alone have accounted for almost 55 percent of total inflows, and about a dozen countries accounted for nearly 80 percent of the total. The surge phenomenon has been particularly pronounced in Asia and Latin America (Table 1). In the case of the Asian region, annual private capital flows went from about \$21 billion in the late 1980s to \$111 billion in 1996, before falling off to \$56 billion in 1997. The other developing regions, namely Africa and the Middle East, have not benefited as much as Asia and Latin America from capital inflows. As a matter of fact, most developing countries are just beginning to be integrated with global financial markets and 140 of the 166 developing nations account for less than 5 percent of total flows during 1990–97 to the developing world.

The composition of recent flows has also changed substantially compared to the flows during the pre-debt and debt crisis periods. In the late 1970s and in the 1980s, debt flows, in particular syndicated bank loans, were the largest component of capital flows going to developing countries. In contrast, in this decade capital flows have been dominated by bonds and non-debt creating flows, namely foreign direct investment (FDI) and portfolio investments. During the period 1990–97, the share of FDI in total private flows was nearly 70 percent, while the rest was mainly portfolio investments.

Table 1.
Developing Countries: Capital Flows¹
(Annual Average, in Billions of U. S. Dollars)

	1977-83	1984-89	1990-97	1991	1992	1993	1994	1995	1996	1997
Developing Countries	40.1	44.0	150.2	148.1	131.5	163.3	145.7	183.7	205.5	172.9
Africa	10.9	8.7	12.2	8.0	8.8	9.3	18.6	18.9	11.0	17.3
Asia	13.3	20.8	63.3	42.8	31.5	64.3	69.3	96.9	111.5	56.3
Middle East and Europe	-11.0	6.4	22.4	68.4	37.2	25.7	14.4	10.0	14.9	14.8
Western Hemisphere	26.9	8.0	52.3	28.9	54.0	64.0	43.4	57.9	68.1	84.5

Source: International Monetary Fund, *World Economic Outlook database*.

¹Net capital flows comprise net direct investment, net portfolio investment, and other long- and short-term net investment flows, including official and private borrowing.

The reduced importance of commercial bank lending and greater importance of FDI in the more recent period is widespread across regions. However, one should note that FDI has been relatively larger in Asian countries than in the other regions where portfolio investments accounted for most of the flows. Generally it is argued that FDI is the most desirable form of foreign capital as it brings along positive externalities, such as increased access to foreign markets, management expertise, and the opportunity to acquire cutting-edge technology. Moreover, there is the popular perception that portfolio flows have greater volatility as they are less costly to reverse than FDI.³ It is also argued that FDI has lower sensitivity to international interest rates and is driven by considerations of long-term profitability. All in all, it is evident that in the 1990s Asia, and particularly East Asia, received the largest amount of private foreign capital, and also supposedly the "good" kind of capital flows in the form of FDI.

Despite the extensive literature that has emerged on capital inflows in the 1990s, there have been hardly any studies examining why the composition of capital flows has varied across regions. An exception is Chen and Khan (1997). That study argues that the search for higher returns is the primary force driving foreign investors' decisions. Consequently, the cost of financing to the recipient country could lead to different patterns of capital flows. Although the absolute levels of growth potential and financial market development are relevant to capital flows, Chen and Khan (1997) show that the relative magnitude of the two is also important, since it affects both the amount and the composition of capital inflows, generating a large variety of patterns. Among the consequences of this theoretical result, two have important policy implications. First, the analysis implies that better financial market infra-structure by itself is not always sufficient to attract portfolio flows. And second, it indicates that "good" capital flows are not necessarily characterised by a high level of FDI and low level of portfolio flows. Indeed, such a composition could be a sign of an underdeveloped financial market in the recipient country that hampers the possibilities arising from its high growth potential.

III. CAUSES OF CAPITAL FLOWS

The primary forces driving investor interest in emerging markets, and which have led to their increased integration in world financial markets, are the search for higher returns and for risk diversification. These forces have always driven investors' decisions, but the responsiveness of private capital to opportunities in emerging markets has increased in the 1990s because of both internal and external factors.

(a) Internal Factors

The capital inflows literature suggests that developments in capital-importing countries have improved private risk-return characteristics for foreign investors through

³The issue of whether FDI represents long-term capital and thus is less volatile is not quite settled; See for example, Claessens, Dooley and Warner (1995).

two main channels. First, creditworthiness improved as a result of external debt restructuring in a wide range of countries. For example, in the 1980s heavily indebted Latin American countries such as Argentina, Costa Rica, Mexico, Uruguay and Venezuela, and countries like Nigeria and the Philippines, benefited from the officially-supported "Brady-type" initiatives that lowered the outstanding stocks of debt.

The second channel pulling investors to emerging markets were the productivity gains arising from structural reform and the confidence in macroeconomic management after the success of stabilisation programmes in countries in Eastern Europe, Asia, and Latin America. The European countries carried out stabilisation programmes and structural reforms during 1990-91, and their capital accounts improved dramatically in 1992, and 1993 [Calvo, Sahay, and Végh (1995)]. In the mid-1980s, Indonesia, Malaysia and Thailand introduced adjustment programmes that reduced their large fiscal deficits, depreciated the currency, and decreased the overall rate of credit expansion. In the early 1990s the Philippines also followed this example. Moreover, in these four Asian countries the stabilisation policies were accompanied by measures that opened the economy to foreign trade and reformed the financial system. In Latin America, Bolivia, Chile and Mexico adopted disinflation programmes in the late 1980s, while Argentina, Brazil, Ecuador and Peru did so in the early 1990s. As in the Asian countries, these policies were complemented by market-oriented reforms, such as trade and capital market liberalisation [see, among others, the papers by Calvo, Leiderman and Reinhart (1993, 1994, 1996)].

Schadler *et al.* (1993) have argued that domestic influences were the dominant cause of capital inflows to emerging markets. They noted that changes in external factors did not coincide and even postdated the surges in some of the countries reviewed. Moreover, the variation in timing, persistence and intensity of the inflows among the different countries, suggests that investors might have reacted to country-specific factors, such as those highlighted by Chen and Khan (1997).

In a comprehensive study of the capital inflows issue, the World Bank (1997) discussed several trends suggesting that flows have been driven by domestic factors. Among them, the following should be mentioned: (i) countries with the strongest fundamentals (i.e. high investment-to-GDP ratio, low inflation and low real exchange rate variability) have received the largest flows as percentage of GDP, whereas countries with very poor fundamentals have not attracted private flows; (ii) FDI is the largest component of private flows to emerging markets but, although sensitive to macroeconomic fundamentals, it is not explained by global interest rates; and (iii) portfolio flows are more sensitive to interest rates, but still they have shown an upward trend since 1992-1993 despite the increase in global interest rates.

(b) External Factors

In a series of papers Calvo, Leiderman, and Reinhart (1993, 1994, 1996) have questioned the predominant role played by domestic policies in attracting private capital

flows. They suggested that cyclical conditions in industrial countries have been the main factor driving these flows to developing countries. In particular, the decline in world real interest rates observed in the early 1990s attracted or "pushed" investors to emerging markets in two ways. First, the decline in interest rates in the United States, Japan and many European countries made profit opportunities in emerging economies relatively more attractive. Second, lower international interest rates improved the creditworthiness and reduced the default risk of debtor countries.

The cyclical argument regarding the importance of the external factors was the prevailing view in the early 1990s. However, the persistence of private capital flows after the increase in world interest rates in 1994 and the Mexican crisis suggested that structural external forces were also at work. Two specific developments in the financial structure of capital-exporting countries have increased the responsiveness of private capital to cross-border investment opportunities. First, firms in industrial countries have looked for higher efficiency and profits by producing abroad as a consequence of falling communication costs, competition, and increasing costs in domestic markets. This not only triggered FDI but also changed its nature in comparison to the 1970s and early 1980s. In those years, FDI was mainly driven by resource extraction and import substitution, whereas the progressive globalisation of production has led to a high proportion of FDI being characterised as efficiency-seeking investments.

The second development in the financial structure of industrial countries that increased capital flows to emerging markets was the growing importance of institutional investors. These investors found themselves more willing and able to invest abroad due to higher long-term expected rates of return in developing countries and to wider opportunities of risk diversification. The increase in long-term expected rates of return was, as mentioned before, the consequence of improvements in country creditworthiness after the adoption of structural reforms and macroeconomic stabilisation programmes in the late 1980s and early 1990s. Wider opportunities for risk diversification arose as a result of broader and deeper securities markets in emerging markets that expanded the range of instruments offered to investors and increased liquidity. In addition, these opportunities also increased when markets in creditor countries became more globalised. This was the consequence of a process of competition, financial innovation, deregulation and technological change that, in turn, increased the importance of institutional investors.

Mutual and pension funds have been the most successful institutional investors. Driven by profit and subject to less regulations than pension funds, the growth and international exposure of mutual funds started in the 1970s. Consequently, the share of international assets in their portfolio has not varied much in this decade, except in the United States where that proportion increased from 3.8 percent in 1990 to over 10 percent by 1996. Still, emerging markets only account for about 2 percent of total mutual funds assets in the United States, around 3 to 4 percent in UK mutual funds, and almost

none in Japan and the rest of Europe. Pension funds in industrial countries only began to have international exposure more recently, given that they have always been heavily regulated and more cautious in nature. These figures suggest that a considerable room remains for the expansion of mutual and pension funds' investments in emerging markets.

In summary, external factors have had a significant role in the capital surge in the 1990s due to both cyclical and structural factors. The importance of structural forces gives rise to optimism regarding the volume of capital flows to developing countries in the medium term.

IV. CONSEQUENCES OF CAPITAL INFLOWS

While there are clear benefits to developing countries of an increase in private capital inflows, there are possible costs as well to consider. Large capital inflows, as observed in the 1990s, can have adverse macroeconomic effects and may create serious problems for the financial system. This section examines the consequences of capital inflows using the World Bank (1997) study of 20 developing countries that experienced sharp increases in inflows for foreign capital.⁴

(a) Macroeconomic Effects

Standard open-economy models predict an excessive expansion of aggregate demand—or macroeconomic overheating—as a result of capital inflows. This expansion should be reflected in inflationary pressures, real exchange rate appreciation and widening current account deficits. These models assume an economy with two goods—traded and nontraded—and a representative consumer with perfect foresight who maximises utility by choosing sequences of consumption of these two goods over time. Accordingly, in these models a decline in the world interest rate induces income and substitution effects in the capital importing country which generates increases in consumption and investment, a decline in savings and a deterioration of the current account. Ultimately, however, the effects upon inflation and the real exchange rate will largely be determined by the exchange rate regime adopted by the country and the amount of international reserves accumulation.

As predicted by standard theoretical models, the current account deteriorated in virtually all countries during the inflow period. However, new capital inflows were also used to accumulate international reserves. Indeed, in nine of the twenty countries, international reserves accumulation absorbed more than 50 percent of the inflow. The

⁴The sample of countries, and the respective capital inflow episode, are: Argentina (1991-94), Brazil (1992-95), Chile (1989-95), Colombia (1992-95), Hungary (1993-95), India (1992-95), Indonesia (1990-95), Korea (1991-95), Malaysia (1989-95), Mexico (1989-94), Morocco (1990-95), Pakistan (1992-95), Peru (1990-95), Philippines (1989-95), Poland (1992-95), Sri Lanka (1991-95), Thailand (1988-95), Tunisia (1992-95), Turkey (1992-93), and Venezuela (1992-93).

generalised deterioration in the current account was the consequence of increases in investment and consumption ratios to GDP. The investment ratio rose in 15 of the 20 countries in the sample, while the consumption ratio declined in 9 of the 20 countries in the sample.

As is well known, a rise in consumption and investment will appreciate the real exchange rate because of upward pressure on the relative price of the nontraded goods. In addition, given that consumption tends to be less tilted toward traded goods than investment, real exchange rate appreciation is more likely when capital inflows finance consumption rather than investment. The composition of total consumption will also have an effect on the real exchange rate if government consumption is more biased toward nontraded goods than private consumption.

The real exchange rate appreciated in 12 of the 20 countries in the sample. With the exception of Chile, a real appreciation was present in all Latin American countries, whereas East Asian countries were among the few that had large real depreciations or kept the exchange rate nearly stable. Still, given that the appreciation of the exchange rate was not associated with an acceleration of inflation, the regional differences appear to be associated more with the use of the exchange rate as a nominal anchor than with overheating as such.

The monetary consequences of capital inflows will crucially depend on the exchange rate regime followed by the country. Under a free float, a positive shock to the capital account generates no change in international reserves and monetary aggregates, but creates a nominal exchange-rate appreciation inducing a current account deficit. Under fixed exchange rates, the intervention of the monetary authorities required to defend the parity will lead to reserve accumulation and increases in the money supply, lowering domestic interest rates and raising domestic asset prices. As a consequence, an expansion in aggregate demand is triggered causing a rise in domestic inflation once excess capacity is absorbed. Under these circumstances, the real exchange rate appreciates due to the increase in domestic prices, again worsening the current account deficit. In intermediate and most-frequently adopted regimes, and under imperfect capital mobility, the authorities defend a predetermined nominal exchange rate, while pursuing a target for monetary aggregates. In this context, the amount of reserve accumulation is a policy choice. The more aggressive this accumulation is, the lower (higher) the pressures on the nominal exchange rate (inflation).

Except for deteriorations of the current account, the countries in the sample were able to avoid most of the symptoms of macroeconomic overheating (i.e., acceleration of economic growth, inflation and the appreciation of the real exchange rate). Indeed, as mentioned above, the appreciation of the exchange rate in the sample of countries chosen seems to be related to the use of the exchange rate as a nominal anchor. It should be noted that the acceleration of inflation was almost absent in all countries during the surge period.

(b) Effects on the Financial Sector

There are two major effects of capital inflows on the domestic banking system. First, the quasi-fiscal deficit increases as a result of a sterilisation policy that consists in selling high-yielding domestic bonds and buying foreign exchange assets that earn lower interest. In Latin American countries, estimates of these quasi-fiscal costs range from 0.25 percent to 0.5 percent of GDP a year [Kiguel and Leiderman (1993)]. Second, the financial system might become more vulnerable due to a rise in lending that may exacerbate the maturity mismatch between bank assets and liabilities and reduce loan quality. Experience shows that increases in bank credit were a generalised outcome associated with capital inflows. With the exception of Argentina, Chile and Venezuela, the ratio of bank lending to the private sector as a share of GDP was higher in the inflow periods than in the years prior to the inflow. The vulnerability of the financial sector as a result of lending booms was usually strengthened by a surge in asset prices that at the end proved unsustainable.

Indeed, if capital inflows are accompanied by an increase in asset prices, the financial sector will be more vulnerable because households' debts and consumption rise as appreciated assets are used as collaterals for new loans. Banks that are poorly managed and supervised might finance consumption booms and speculative activities, like a boom in construction and real estate. As a consequence, resources will be misallocated and financial distress will be a likely outcome once asset prices decline. In fact, this fall will be accompanied by higher interest rates, causing overindebted agents to default their debts and the reduced value of the collateral will not be enough to cover banks' losses.

According to the World Bank (1997), those countries with the highest increase in bank lending not only were those that later experienced a banking crisis, but also were usually those in which macroeconomic vulnerability was higher—measured by increases in the current account deficit, real exchange rate appreciation, excess consumption, and underinvestment. Nonetheless, not all the countries that experienced a credit boom end up with weaker financial systems. Therefore, it is relevant to ask what policies have these countries taken to offset the negative effects of capital inflows upon banks.

V. POLICY RESPONSES TO CAPITAL INFLOWS

Countries that have managed to overcome macroeconomic overheating and financial sector effects arising from capital inflows have not relied on a single policy measure. The appropriate policy combination depends on a variety of factors, such as the causes behind the inflows, the availability and flexibility of different instruments, the nature of domestic financial markets, and the macroeconomic and policy environment in the recipient country [Khan and Reinhart (1995)].

The policies that have been employed to combat the adverse effects of capital inflows involve in the first instance demand-management policies, which include monetary, exchange rate, and fiscal policies. The effects on the financial system require structural policies geared to improving the strength and resiliency of financial institutions. Finally, some countries have used controls on capital inflows, a policy that has received considerable credence in policy discussions in the wake of the Asian crisis of 1997-98.

(a) Demand-Management Policies

(1) Monetary Policy

In an exchange rate regime that is not completely flexible, monetary policy avoids aggregate demand pressures by sterilising the monetary expansion caused by the accumulation of international reserves. The larger the accumulation of reserves, the more the authorities will be able to avoid nominal exchange rate appreciation. In turn, this will imply a stronger sterilisation policy if the increase in monetary aggregates is to be limited. There are two main types of sterilisation policies: open market operations, and increases in reserve requirements.⁵

Sterilisation via open market operations usually takes place through the sale by the central bank of high-yield domestic assets—either government or central bank securities—for low-yielding foreign reserves. This type of sterilisation has two main advantages. First, it reduces the monetary expansion generated by the purchase of foreign currency. Second, by limiting the role of the banking system in intermediating the flows, it reduces the vulnerability of banks if a sudden reversal of the flows occurs. However, open market operations tend to increase domestic interest rates. This happens if domestic assets issued in the sterilisation operation are imperfect substitutes for other domestic currency assets investors want to hold and/or if the demand for money increases as a result of higher growth or lower inflation. Consequently, this type of sterilisation has three disadvantages. First, it induces further capital inflows through the increase in domestic interest rates. Second, it alters the composition of capital flows, reducing the share of FDI and increasing the share of short term and portfolio flows [Montiel and Reinhart (1997)]. Third, it raises quasi-fiscal costs by widening the domestic and foreign interest rate spread. These disadvantages, together with the persistence observed in capital flows in the 1990s, make open market operations only a short-term policy option. Still, they have been the most popular policy response to capital inflows across countries and regions.

An increase in reserve requirements also offsets the monetary expansion associated with central bank intervention in the foreign exchange market. The advantage

⁵Governments can also sterilise through shifts in public sector deposits. This policy, however, has the same net effect as open-market operations.

of this policy is that it decreases the capacity of banks to lend without the quasi-fiscal costs caused by open market operations. However, increasing reserve requirements has several shortcomings. It reverses the trends of financial liberalisation in developing countries hampering an efficient allocation of credit. In addition, if maintained for a long period of time, high reserve requirements promote disintermediation. As a consequence, funds are shifted to the nonbank financial sector and the desired effect of avoiding monetary expansion is not achieved. Finally, and similar to open market operations, this type of sterilisation policy stimulates further capital inflows. In fact, reserve requirements induce borrowing from abroad because they are a tax on the financial system that is transferred, at least in part, to bank customers through an increase in loan rates. Despite these disadvantages, countries have attempted to reduce the effects of capital inflows using this type of sterilisation policy.

(2) Exchange Rate Policy

If policy-makers wish to avoid the expansion of monetary aggregates associated with capital inflows, they can reduce international reserve accumulation by allowing nominal exchange rate appreciation. This countercyclical policy has several virtues. First, it insulates the money supply from the inflows. The greater exchange rate flexibility, the larger will be the insulation of the money supply and the greater the autonomy of monetary policy. This advantage is particularly desirable when the flows are perceived to be reversible and supervision of the financial system is poor. A second virtue of allowing exchange rate flexibility is that the appreciation of the real exchange rate is likely to occur through a nominal appreciation rather than through higher inflation. Given the links between the nominal exchange rate and inflation, the latter is likely to be lower when the former is allowed to appreciate. A third advantage associated with nominal exchange rate flexibility is that, by introducing uncertainty, it can discourage speculative short-term capital inflows.

However, if the nominal exchange rate is allowed to appreciate, the profitability of the traded goods sector will be affected adversely. Strategic sectors, such as nontraditional exports, will be damaged if capital flows are persistent and real exchange rate appreciation is likely to be permanent. Still, even if capital flows are temporary, the real exchange rate will be more volatile. This might have negative effects on the tradable goods sectors through different channels. For example, if the real exchange rate appreciation is sufficiently large, it might induce hysteresis in the trade balance altering the steady state real exchange rate. Also, the tradable goods sector will be negatively affected if financial sectors are not sufficiently developed and, consequently, do not provide enough instruments to hedge against real exchange rate volatility [Khan and Reinhart (1995)].

Although no country abandoned a predetermined peg for a freely-floating regime during the capital inflow period in the 1990s, almost all countries allowed greater

variability of the nominal exchange rate. In general, to reduce the risk associated with a pure float and decrease the costs associated with accumulation of international reserves, several countries adopted "flexibly managed" exchange rate systems. In practice, nominal exchange rate appreciation has been more common in Latin America than in East Asia.

In summary, countries attaching lower weight to competitiveness than to inflation reduction will either use the exchange rate as a nominal anchor or increase nominal exchange rate flexibility. This was the case in many Latin American countries, where the weight given to price stability should be put in the context of the stabilisation plans being enacted when capital inflows began to occur. However, using the exchange rate as an anchor or as an instrument of short-run stabilisation, can lead to persistent and large misalignments that threaten the sustainability of the regime and stimulate speculative attacks.

(3) Fiscal Policy

The third countercyclical policy is to tighten the fiscal stance, especially cutting public expenditures, to lower aggregate demand and reduce the inflationary impact of capital inflows. This policy has several advantages. It avoids the costs associated with the different types of sterilisation policies. In addition, fiscal restraint is a substitute for exchange rate flexibility as a stabilisation device. A cut in public expenditure is likely to limit the appreciation of the real exchange rate, since nontradable goods often represent a significant share of public expenditures. Reducing the pressures on the real exchange rate has several benefits. It induces smaller current account deficits. Moreover, it favours investment over consumption, since the former is more tilted toward traded goods than the latter. In turn, this is likely to induce faster economic growth. However, fiscal contraction is not always flexible enough to respond to fluctuations in capital movements. After all, fiscal tightening involves sensitive political actions that can not be undertaken on short notice.

Given the inflexibility of fiscal policy, few countries have used fiscal restraint during the inflow period. In Latin America, only Chile, from mid-1990 to 1995, tightened the fiscal stance by increasing the value added tax and corporate taxes and restraining expenditures. In contrast to Latin America, most East Asian countries used fiscal tightening to overcome the expansion in aggregate demand arising from capital inflows. In fact, tightening occurred in Indonesia (1990–94), Malaysia (1988–92), the Philippines (1990–92) and Thailand (1988–93).⁶ The benefits of using fiscal policy were clear, as countries that followed this policy experienced a real depreciation of the exchange rate, a rise in the change of the investment ratio and larger increases in economic growth. This was the case, for example, in Thailand, Chile, Indonesia and Malaysia.

⁶See Folkerts-Landau and Ito (1995) and Montiel (1995).

Beyond the benefits of fiscal contraction as an instrument for short-run stabilisation, some studies have argued that the fiscal stance should become more conservative in the face of increased financial integration [World Bank (1997)]. Indeed, in the context of high financial integration, the direction and magnitude of capital flows become very sensitive to perceptions of domestic public solvency. If the long-run fiscal stance of the government is uncertain, short-run policy changes will be used by economic agents as information regarding government's longer run intentions. This limits the flexibility of fiscal policy in the short run because the government will be concerned with the possibility that wrong signals emerge from its actions. Consequently, achieving a reputation of conservative fiscal policies will maximise government's short-run policy flexibility during inflow periods.

(b) Financial Sector Policies

Although banking crises in developing countries have been associated with increases in the current account deficit, real exchange rate appreciation, and excess consumption and underinvestment, an appropriate macroeconomic stance is insufficient to secure a sound financial sector. In fact, three additional elements are required to reduce the vulnerability of the financial sector.

First, an adequate internal governance is required to attain a sound financial system. The managers and owners of banks have the main responsibility for the oversight of these institutions. But poor internal governance has been an important factor behind several cases of unsoundness. Second, market discipline can be reinforced when creditors strengthen the incentives of banks to operate safely and soundly, exerting discipline on their activities, and forcing the exit of poor managers, owners or of the entire bank. The third element is banking supervision and regulation.

Banking regulation and supervision becomes a crucial element if there are failures in internal governance and market discipline. It reinforces the operating environment, strengthens internal governance and improves market discipline. The operating environment is reinforced with well-designed controls limiting entry into the banking industry and the scope of banking. Internal governance is strengthened when regulations promote fit and proper owners and managers, require owners to put their own capital at risk, and implement appropriate loan valuation and classification practices and supporting accounting standards. Finally, market discipline is improved when regulation ensures that market participants have as much information as possible to judge the soundness of banks, and that sanctions imposed by the market are taken [Lindgren, Garcia and Saal (1996)].

A key problem with market regulation and supervision is that financial institutions can avoid them relatively easily. In most developing countries the evasion of prudential regulation is accomplished through on-balance sheet operations that artificially increase bank's regulatory capital position. Moreover, the enormous surge

of derivative markets has increased the methods of avoidance. To reduce the possibility of avoiding regulations requires stringent, comprehensive surveillance across the corporate structure of a financial and industrial group and a switch to risk accounting principles.

Given that even in industrial countries such comprehensive surveillance of off-balance sheet activities is still not well formulated, some observers are skeptical of the role that market regulation and supervision can play in volatile financial markets. They suggest that it is more efficient to increase reserve requirements to control growth of liquidity than to strengthen regulation and supervision to control risk in the financial institutions issuing liquid liabilities. This view, however, goes in opposite direction of reforms towards financial liberalisation and does not encourage the reliance of market forces to provide efficient allocation of credit. Despite the limitations of banking supervision and regulation, this policy becomes particularly important to reduce the vulnerability of the financial sector during capital inflows associated with lending booms and unsustainable surges in asset prices. Several indicators can be used to evaluate if a banking system has been strengthened.

First, a high capitalisation rate, measured as the stock of capital relative to the stock of bank assets, indicates that the system is sounder. Indeed, an increase in the capitalisation rate reduces the lower likelihood that banks could default on their own borrowing if investment projects become unsuccessful. Second, a rise in provisions made for future losses (as a share of the stock of total loans) reduces the probability of banking crisis if borrowers default on their loans. Third, high liquidity of banks' assets indicates that the financial system is less vulnerable to liquidity crises.

Taking into account these indicators, the World Bank (1997) shows that Chile and Colombia strengthened their banking systems during the capital inflows and lending boom period. In Chile this was reflected mainly in higher liquidity of bank's assets; in Colombia it reflected tighter regulations that forced banks to increase their capitalisation and provisioning. By contrast, the health of the financial sector deteriorated in Argentina, Brazil, Mexico and Venezuela during the early 1990s.

(c) Capital Controls

Globalisation requires the removal of barriers to cross-border flows of goods and capital, and accordingly most developing countries have been moving steadily in this direction. However, the recent developments in Asia have renewed the debate on the usefulness and effectiveness of capital controls, particularly controls to inhibit volatile short-term capital flows. Thus, in contrast to earlier periods where the focus was on using capital controls to limit capital flight, the current proposals argue for the use of controls to alter the volume and composition of capital inflows, with the aim being to discourage short-term portfolio investments and bank loans and encourage FDI and long-term inflows. In this context, the policies followed by Chile in the 1990s are

regarded as a good example of how controls can be utilised to manage potential large-scale short-term capital flows.

In general, in an economy suffering from distortions, capital controls can be welfare improving [Dooley (1996)]. Accordingly, a large literature has developed justifying capital controls as a "second best" solution and, in the presence of multiple equilibria, as a tool to attain the first-best equilibrium. Traditionally, the effectiveness of capital controls has been defended using two arguments. First, by driving wedges between domestic and external interest rates, capital controls are seen as a tool that helps the authorities to gain control over domestic monetary conditions when the exchange rate is fixed or managed. A second argument is related to an empirical regularity. Countries with capital controls have higher rates of inflation and higher revenue from inflation, but lower real interest rates, than countries where controls are not used. Consequently, capital controls are also seen as tool to maintain government revenues associated with financial repression and to reduce governments' debt service costs. Still, if they are used to support inconsistent monetary and exchange rate policies, they are not effective in preventing balance of payments crises.

In the face of large capital inflows and the trend towards financial liberalisation, capital controls have recently served a different purpose than in the past. In fact, rather than to avoid nominal devaluations of the exchange rate, they have been implemented to reduce nominal and real appreciations of the exchange rate. In addition, in this decade capital controls have been aimed at diminishing pressures on aggregate demand whereas, in the past, the purpose was to avoid lower growth caused by declines in investment and consumption after a capital outflow. Although capital flows in either direction complicate the conduct of monetary policy, capital controls seek to reduce monetary and credit expansions in inflow periods. In contrast, in outflows episodes, capital controls try to avoid high interest rates that could place additional strains on the financial system. Finally, in the 1990s the adoption of capital controls can be seen as a precautionary measure. They reduce the destabilising effects associated with the inflows and, by doing so, avoid the traumatic effects associated with outflows [Reinhart and Smith (1996)].

Two basic categories of restrictions on capital mobility can be distinguished. The first is quantitative controls used to regulate the volume of capital flows, whereas the second involves explicit taxes (i.e., a transaction tax) or tax-like measures (i.e., a noninterest-bearing reserve requirement on foreign borrowing). In the past, quantitative measures were implemented mainly to prevent outflows and were associated with administrative controls, required extensive bureaucracy, provided incentives for evasion and interfered with international trade. However, the main purpose of quantitative controls in the 1990s has been similar to that of explicit taxes or tax-like measures—reducing the volume of flows and, in particular, target short-term capital that is perceived as volatile and destabilising.

As the case of Chile is widely cited as being successful in the use of tax-type controls on capital inflows, it is worthwhile describing it briefly.⁷ In the early 1990s, Chile experienced a surge in capital inflows that created a conflict between the government's internal and external objectives: how to maintain a high interest rate to combat inflation while keeping a real exchange rate that would keep exports competitive. In 1991, the central bank attempted to resolve this dilemma by imposing a one-year unremunerated reserve requirement (URR) on foreign loans, which was primarily designed to discourage short-term foreign borrowing without affecting long-term flows. The one-year holding period of the reserve requirement implied that the financial burden diminished with the maturity of the investment. In May 1992 the rate of the URR was set at 30 percent and maintained until June 1998, when it was reduced to 10 percent. Currently in Chile there is a one-year minimum holding period on capital inflows (applying to all inflows above \$10,000 except for short-term borrowings and holdings of American Depository Receipts (ADR)). Bonds issued by Chilean corporations must have an average maturity of four years. In addition, as mentioned above, there is a 10 percent URR, also with a one-year holding period, for all external liabilities that do not result in an increase in the stock of capital. In practice, this means that loans, fixed-income securities, and most equity investments are subject to URR, and only FDI and primary issuances of ADRs are exempted from reserve requirements.

The Chilean experience is viewed by many as a means of controlling the composition of private foreign borrowing without hindering the volume of capital inflows to the country. The Government of Chile considers the policy to have been a success, although the empirical evidence on the effectiveness of these controls in reducing short-term flows is ambiguous. Nevertheless, many countries, and even the IMF, are closely examining the Chilean experience to see what lessons it offers on how to minimise the adverse consequences of large-scale capital inflows.

VI. REVERSALS OF CAPITAL FLOWS

Policy-makers in developing countries have to be concerned not only with the appropriate policy response to capital inflows, but also with the possibility of reversals of these flows. In fact, as countries become more integrated, the volatility of private capital flows is expected to increase as a result of both international and domestic reasons.

On the international side, the main sources of volatility are foreign interest rates and stock market returns, as well as investor herding behaviour and contagion effects. Changes in foreign interest rates can have large impacts on the macroeconomic performance and creditworthiness of developing countries. Moreover, if investments in emerging markets are used mainly to increase returns to portfolios when investments in

⁷Colombia is another country that has used a similar policy as Chile.

industrial countries are underperforming, then the former type of investments will be very sensitive to changes in interest rates in industrial countries.

Herding behaviour by foreign institutional investors can induce common outcomes in countries with quite different fundamentals. This behaviour is largely attributed to asymmetric information. Investment fund managers might follow the decisions of competitors to show clients they know their job. In addition, if the mandate of the fund manager is to perform at least as well as the median fund, the incentives to herd are increased. As far as contagion is concerned, its probability rises as capital markets become more integrated, since often foreign investors look at regions, or even all emerging markets, rather than individual countries in choosing between investing at home or in developing countries. A problem in one country may mean problems in all.

On the domestic side, emerging markets are more susceptible to real and policy shocks than industrial countries, and this can give rise to periodic exchange rate and balance of payments crises. Foreign investors and domestic residents, fearing capital losses, would be more likely to shift their funds out of developing countries to safer havens in industrial countries—the “flight to quality” phenomenon.

Besides the recent Asian crisis, major reversals of capital flows have occurred in a number of countries in this decade. There were large outflows early in the 1990s in Turkey and Venezuela, and in 1994 Mexico suffered a serious crisis as both foreign and domestic investors fled the country. A common characteristic of these capital flow reversals has been lack of confidence in domestic macroeconomic policies. Consequently, the traditional theoretical literature on speculative attacks and balance of payments crisis has played a predominant role in explaining capital flow reversals. As outlined by Krugman (1979), under a fixed exchange rate system, if the rate of growth of domestic credit permanently exceeds the growth of nominal money demand, the level of international reserves will fall towards some critical level, creating a balance of payments crisis. The government will then be forced to abandon the fixed exchange rate. Capital outflows will take place as economic agents try to avoid the capital loss on their domestic money holdings that would occur once the fixed exchange rate collapses.

Based on this literature, several symptoms of currency crises have been suggested that may be able to provide early warning signals of a crisis in the making. These leading indicators of crises include the persistent decline in international reserves, rapid growth of domestic credit relative to the demand for money, fiscal imbalances, and the evolution of the real exchange rate, current account balance, real wages, and domestic interest rates. More recent models would also suggest that the list of leading indicators should include factors such as banking problems and measures of the country's international reserves position net of short-term foreign currency debt.

In the case of Asia, many of these signals were flashing prior to the full-blown crisis that erupted in late 1997, although these were mostly ignored. In Thailand, for example, the real exchange rate had appreciated substantially, export growth had slowed

markedly, the current account deficit was persistently large and being increasingly financed by short-term inflows, external debt was rising quickly, and the stock market and real estate market were exhibiting bubbles. Moreover, markets were warning of the unsustainability of Thailand's policies, as evidenced by mounting exchange rate pressure. But after so many years of outstanding macroeconomic performance, it was extremely difficult for the Thai government, as well as other governments and international financial institutions, to appreciate that Thailand was heading into a major crisis that would impact the entire region. Eventually, the crisis erupted in Thailand with the baht falling rapidly and large amounts of capital flowing out. While the reversal of capital flows in Thailand can be explained by the prevailing macroeconomic imbalances, the question is why did the crisis spread to Indonesia, Malaysia, and Korea?

Part of the contagion reflected rational market behaviour. The depreciation of the baht could be expected to erode the competitiveness of Thailand's major trade competitors, and this put downward pressure on their currencies. In addition, after their experience in Thailand, investors began to take a closer look at the problems in Korea, Malaysia, and other neighbouring countries. And what they saw—in different degrees in different places—were some of the same problems that were evident in Thailand. These problems included overvalued real estate markets, weak and over-extended banking systems, poor prudential supervision, and frequently relations between banks and businesses that seriously jeopardised the overall quality of management in both. As in the Mexican experience in 1994, the balance of payments crises were the consequence of macroeconomic imbalances and financial sector vulnerabilities.

Indeed, financial intermediaries played a crucial role in the Asian crisis. These were institutions whose liabilities were perceived as having an implicit government guarantee, but were poorly regulated and therefore subject to moral hazard problems. The excessive risky lending by these institutions created asset price inflation, making their financial condition appear sounder than it was, given that the nominal value of the collateral was rising rapidly. However, when the bubble burst, insolvency of these intermediaries became evident, forcing them to reduce or close operations. In such an environment, large-scale capital flight was only natural.

The financial crisis in Asia led to a significant decline in net capital flows to developing countries in the second half of 1997. The sharp fall from \$205 billion in 1996 to \$173 billion in 1997 was almost all due to the change in capital flows going to Asia, and in particular to capital flow reversals in the five countries most affected by the Asian crisis—Indonesia, Korea, Malaysia, Philippines, and Thailand. Portfolio investments in Asia were reversed in 1997, although FDI flows remained relatively stable. Other flows, which cover bank lending, turned sharply negative in the case of Asia as banks pulled out of the crisis countries. In contrast, net capital flows to other regions held up well. For example, for African and Latin American countries capital flows increased, while remaining roughly constant for the Middle East and Europe region.

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In 1998 the full force of the Asian crisis on capital flows showed up. It is estimated that net capital flows to developing countries were about half of the 1997 flows (Table 2). Again, the big decline occurred in the case of Asia, where there was an outflow of \$18 billion compared to a net inflow of \$56 billion the year before. For the Asian countries all types of capital inflows were affected. FDI is estimated to have declined as investors re-assessed their plans in the region.⁸ But the largest effect was in portfolio and other long-term investments. In the latter case, some \$54 billion of capital moved out during the course of 1998. A more modest decline took place in Latin America, largely in portfolio investment. It is interesting to note that for the first time in the 1990s FDI flows to Latin American countries were larger than similar flows going to Asia. African countries also were adversely affected in 1998, but there was an increase in capital flows to the Middle East region.

Table 2

Developing Countries: Flows by Region
(Annual Average, in Billions of U. S. Dollars)

	1997	1998	1999
Net Direct Investment			
Developing Countries	119.4	108.2	97.8
Africa	7.7	5.8	7.0
Asia	55.4	48.2	40.4
Middle East and Europe	5.1	5.1	6.0
Western Hemisphere	51.2	49.0	44.3
Net Portfolio Investment			
Development Countries	40.6	32.0	38.4
Africa	2.6	2.8	-0.2
Asia	-2.2	-12.2	2.6
Middle East and Europe	6.8	13.6	15.3
Western Hemisphere	33.5	27.8	20.7
Other Flows			
Development Countries	12.9	-46.8	-16.8
Africa	7.1	0.7	5.4
Asia	3.1	-54.4	-21.9
Middle East and Europe	2.9	8.7	2.2
Western Hemisphere	-0.1	-1.7	-2.3
Net Capital Inflows			
Development Countries	172.9	93.4	119.4
Africa	17.3	9.3	12.2
Asia	56.3	-18.4	21.1
Middle East and Europe	14.8	27.4	23.5
Western Hemisphere	84.5	75.1	62.7

Source: International Monetary Fund, *World Economic Outlook* database.

⁸It should be noted that most of the FDI flows to Asia in 1998 went to only one country—China. For other Asian countries, FDI flows came to virtual halt.

The projections for 1999 are based in large part on the assumption that Asian countries will have generally stabilised their external financing positions. There are in fact signs of such stability emerging in the cases of Korea and Thailand. For 1999 it is projected that net capital flows to developing countries will reach about \$120 billion, a level that is still below the flows observed in any year in the 1990s. The major turnaround is expected in Asia, although it should be noted that even so, net capital inflows in 1999 will only be comparable to the flows prior to the boom period. And of course, these projections are subject to substantial risks. If the financial restructuring and adjustment programmes fail to stabilise the Asian economies and create foreign investor confidence, capital outflows would continue, and net financial flows to developing countries could be substantially lower.

VII. CONCLUSIONS AND POLICY LESSONS

The large-scale flow of private capital to developing countries has arguably been the most significant development for these countries in the 1990s. The decade has been characterised by boom and bust cycles of private financial capital flows, with inflows growing dramatically in the early years and then slowing down in the wake of the Asian crisis. However, it should be noted that even in 1998, the worst year of the Asian crisis and capital flow reversals, the amount of private capital going to developing countries exceeded the flow in any year prior to 1990.

For many developing countries the capital inflows of the 1990s enabled them to substantially raise investment and growth rates. The cases of Korea, Malaysia, and Thailand in Asia, and Argentina, Chile and Mexico in Latin America are the significant examples of utilising foreign capital inflows effectively. Nevertheless, it is now well-recognised that capital inflows are not an unmitigated blessing. They can have adverse macroeconomic effects and strain the financial systems of the recipient countries. Furthermore, capital flows can reverse themselves, forcing recessions and severe financial distress. In a financially-integrated world the issue, however, is not whether developing countries can do without private foreign capital. Such capital flows are essential to the economic development process, particularly as official flows, particularly official development assistance, are steadily declining. To prosper, developing countries have to take advantage of the opportunities globalisation offers. Thus, the task for developing countries is to manage capital inflows in a manner that maximises the benefits and at the same time minimises their risks.

Even though the flows of private capital to developing countries are currently below the average annual flows for the 1990s, the future of these flows is still bright. Indeed, capital flows appear to have reached a new phase characterised by strong structural forces. In particular, two developments in the financial structure of capital-exporting countries have increased the responsiveness of private capital to cross-border investment opportunities. First, firms in industrial countries have looked for higher

efficiency and profits by producing abroad as a consequence of falling communication costs and competition, and increasing costs in domestic markets. Second, institutional investors are more willing and able to invest abroad due to higher expected interest rates of return in developing countries and to wider opportunities of risk diversification.

Major reversals in capital flows will continue to be a threat if lack of confidence in domestic macroeconomic policies emerges. Balance of payments crises will arise as a consequence of both financial vulnerabilities and macroeconomic imbalances. In addition, as countries become more integrated, the recent volatility observed with private capital is likely to increase because of changes in interest rates and stock market returns, as well as investor herding and contagion effects.

Recipient countries have been largely successful in overcoming most of the negative effects associated with capital inflows. Indeed, except for pressures on the current account balance, policy-makers have been able to avoid symptoms of macroeconomic overheating. Still, capital flows increased bank lending and were accompanied by a surge in asset prices. Although not all countries that experienced a credit boom ended up with weaker financial systems, countries with the highest increase in bank lending, mainly in Asia, were usually those that later experienced a banking crisis and greater macroeconomic instability.

Successful policy responses have varied across countries and have not relied on a single instrument. It is not surprising that policy responses had differed across countries. After all, several factors condition the appropriate policy response in a particular country. Among them, one can mention the host country's anti-inflationary record, the openness of the economy to foreign trade, the state of public finances, the size and liquidity of the domestic bond market, the health of domestic banks, the flexibility of fiscal policy, and the quality of the regulatory and supervisory framework over the financial sector [Goldstein (1995)].

If countries adopt the requisite macroeconomic policies and implement structural reforms that strengthen their financial systems, they will not only be successful in handling capital inflows, but will also reduce the risks of reversals. But it should be recognised that private capital flows will remain volatile, and thus countries will not be able to eliminate all the risks stemming from this volatility. Only the right macroeconomic policies and structural changes will enable developing countries to better absorb the effects of such volatility.

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Comments

1.

Let me confess at the outset that it has always been a rewarding experience to be the discussant of Dr Mohsin Khan's paper. As a student of economics I have always learnt by reading his work. I need not emphasise that this paper is highly topical and reflects the highly talented abilities and scholarship of Dr Mohsin Khan. Particularly, after the East Asian crisis, the issue of capital flows and whether it is a 'blessing' or 'curse' has assumed paramount importance not only for developing countries but world at large.

Dr Khan in his paper has thoroughly discussed the trends and structure of capital flows. He has also identified the cases of capital flow, in particular, he has identified both internal and external factors that have played an important role in attracting capital flows to a particular region or country. Strong economic fundamentals like, high investment-GDP ratio, higher saving rate, higher economic growth, low inflation and a stable real exchange rate regime are internal factors. The external factor that have pushed/pulled the capital towards certain region or country is the result of cyclical conditions that prevailed in industrial countries. In particular, the low real interest rates in industrial countries have forced investors to look for more attractive return to their investment and wherever they found better opportunities they moved their capital.

It is precisely because of their strong economic fundamentals, outward oriented growth strategy, higher returns, stable governments, and currencies pegged tightly to the US dollar that the East Asian economics succeeded in attracting massive capital flows. Until the first half of 1997, a crucial analytical and policy question in economic development centred around how East Asia grew so fast. The development of East Asia since the late 1970s or early 1980s is the greatest success story of sustained economic growth in the history of mankind. The high rates of growth of per capita income that began to witness in Japan, spread to other East Asian countries. Along with their rapid increase in per capita income these countries succeeded not only in reducing income inequality but also improving human welfare and all the subordinate indices, such as education, health, housing etc., dramatically. The remarkable experience has occurred over a period long enough to rule out accident and with enough similarity of approach and out-come to rule out coincidence. Capital flows to this region beyond any doubt has indeed been a blessing.

Dr Khan has also discussed the consequences of large capital flows. In the light of the recent experiences he has rightly argued that large capital flows can have adverse macro-economic effects and may create serious problems for the financial system. It can build up inflationary pressures, it can appreciate real exchange rate, can widen current account deficit.

What should be the policy response to capital flows? The policy responses should depend upon the nature and causes behind the inflows, the availability and flexibility of different instruments, the strength of financial market, and the macroeconomic and policy environment in the recipient country. Dr Khan has listed three broad set of policies that include the standard demand management policies, the financial sector policies, and capital control policy. Monetary, exchange rate and fiscal policies form the core of demand management policies.

While demand management and financial sector policies are standard and every country should pursue such policies for macro-economic stability and growth, it is the capital control which needs discussion. Dr Khan has identified two policies of capital control, that is, quantitative controls to regulate the volume of capital flows and *explicit taxes* or tax-like measures. He has cited the example of Chile which has used tax-type controls on capital flows. There is also one year minimum holding period on capital flows in Chile. Malaysia has also used the same mechanism to control the flows.

While these policy responses are vital for individual countries the current crisis has revealed serious weaknesses in the international financial system. What is required is a global action to prevent capital flows becoming a curse. Speculative short term flows of capital have grown that outweigh the ability of most central banks, even when supported by the IMF and other forms of international assistance, to stabilise currencies once a flight of capital takes place.

During the boom years in Asia, the governments failed to develop the national systems of regulation needed to control and prevent speculation. For several years, major international banks and other investors were prepared to provide large-scale credits with minimum assessment of the risks involved on the real value of the underlying investment. Neither the IMF, the Bank of International Settlements (BIS) nor private credit rating agencies identified these major policy errors and the build up of a huge overhang of short term foreign private debt until it was too late.

The Mexican Peso crisis and the East Asian financial crisis are stark reminders of the havoc that unregulated international financial markets can bring. What is needed at this stage is that a broad-based independent International Commission mandated to report rapidly on the institutional and policy changes needed to establish an effective international regulatory framework. The key issues facing global economy at this stage in my view are:

- (i) improved policy coordination between the emerging reserve currency blocks of the Dollar, Yen and Euro to cut interest rates, boost growth and thus ease the financial pressure on the countries where the recession started;
- (ii) re-defining the role and responsibilities of the BIS, the IMF, the World Bank, and the Baise Committee on Banking Supervision to implement a global system of governance for international financial markets;
- (iii) laying the foundations for the implementation of an international tax on foreign exchange transactions;
- (iv) recognition of the role of minimum deposit requirements to discourage short-term speculative monetary inflows;
- (v) agreement on binding international standards for the prudential regulation of financial markets covering capital reserve standards, and limit to short term foreign currency exposure;
- (vi) ensuring that banking systems are transparent and bound by effective disclosure criteria;
- (vii) improved standards of corporate governance and information disclosure; and
- (viii) improved information on currency flows, private debt and reserves.

Yet another issue which I would simply flag at this moment in time is the issue of capital account convertibility. Do developing countries or emerging markets aspiring to attract private capital flows liberalise their capital account? It has been argued that China and India—the two large economies, have escaped the so called contagion effects because of no capital account convertibility in these two countries. Dr Khan may like to throw some light on this.

At the end, let me state that stopping globalisation is both unrealistic and undesirable. The real question before the international community is can we create the international policies and institutions to manage the process of globalisation in the service of the needs and aspirations of the people?

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