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**Comprehensive Study of the Interrelationship between
Foreign Direct Investment (FDI) and Foreign
Portfolio Investment (FPI)**

A staff paper prepared by the UNCTAD secretariat*

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INTRODUCTION

The pattern of capital flows to developing countries and countries in transition in the 1990s has two salient features: private flows are the major sources of capital, with FDI and FPI being the dominant components, and flows have become more subject to sharp boom-and-bust swings. The globalization of capital can bring benefits but is also full of risks. Developing countries and countries in transition are facing a policy dilemma between the need to attract external sources of finance for development, including short term finance, and the need to be selective in the types of finance in order to reduce the likely negative impact resulting from the volatility of flows.

This report will analyze in detail some of the issues related to the globalization of capital, which have been raised in a companion paper.¹ The purpose is to provide detailed information and analysis on new investment trends and to draw some policy conclusions, as a contribution to the current debate on the policy regimes on foreign investment. Against the background of recurrent financial crises in emerging markets, triggered by volatile short term capital flows, ongoing discussion in various forums is focusing on the appropriate speed and framework for further liberalization of investment regimes. In this context, it is felt that policy deliberations could be guided by a better understanding of the specific attributes of different types of flows, in particular foreign direct investment (FDI) and foreign portfolio investment (FPI), their characteristics, determinants and contribution to development.

A first chapter will consider statistical problems related to the questions of definition, sources of data and analysis of the relative importance of the two major investment flows for developing countries. In a second chapter, a comparative analysis will be undertaken on the determinants of FDI and FPI and their likely impact on development. Policy implications for handling capital flows and foreign investment regimes will also be discussed.

CHAPTER I STATISTICAL ISSUES

It is important to have an accurate statistical reporting of different types of investment flows for analytical and policy-making purposes. A clear classification of different types of investment would help in this reporting: international institutions, such as the International Monetary Fund and the OECD, have developed guidelines and methodologies for such classification. The application of such methodologies in practice is not without problems.

¹See Note by the UNCTAD secretariat: "Foreign Portfolio investment (FPI) and Foreign Direct Investment (FDI): Characteristics, similarities, complementarities and differences, policy implications and development impact", TD/B/COM.2/EM.6/2, 15 April 1999.

A. Definition of direct and portfolio investment

(a) Direct investment is the category of international investment in which a resident entity in one country obtains a lasting interest in an enterprise resident in another country. A lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the investor on the management of the enterprise. The criteria used to distinguish direct investment from other types of investment is that “a direct investment is established when a resident in one economy owns 10 percent or more of the ordinary shares or voting power, for an incorporated enterprise, or the equivalent, for an unincorporated enterprise”². All subsequent transactions between affiliated enterprises, both incorporated and unincorporated, are also classified as direct investment transactions. Direct investment is divided into equity capital, reinvested earnings, and other capital.

- Equity capital comprises equity in branches, all shares in subsidiaries and associates³ (except nonparticipating, preferred shares that are treated as debt securities), and other capital contributions. Reverse investment or cross-participation transactions⁴ are recorded as direct investment claims and liabilities.
- Reinvested earnings consist of the direct investor’s share of earnings not distributed as dividends by subsidiaries or associates and earnings of branches not remitted to the direct investor.
- Other direct investment capital (or intercompany debt transactions) covers the borrowing and lending of funds between direct investors and subsidiaries, branches, and associates.

(b) Portfolio investment includes investments by a resident entity in one country in the equity and debt securities of an enterprise resident in another country which seek primarily capital gains and do not necessarily reflect a significant and lasting interest in the enterprise. The category includes investments in bonds, notes, money market instruments and financial derivatives other than those included under direct investment, or in other words, investments which are both below the ten per cent rule and do not involve affiliated enterprises. In addition to securities issued by enterprises, foreigners can also purchase sovereign bonds issued by governments. According to the IMF’s 1996 *Coordinated Portfolio Investment Survey Guide* the essential characteristic of instruments classified as portfolio instruments is that they are traded or tradable.

²This is the definition of FDI utilized in the IMF 1993 (fifth edition) *Balance of Payments Manual* and that of the OECD’s 1992 (2nd edition) *Detailed Benchmark Definition of Foreign Direct Investment*. Although the 10 per cent criterion is specified by the IMF and OECD, a survey conducted jointly by these institutions on foreign direct investment statistics in 1997 indicated that about three-fourths of the 96 OECD and non-OECD respondent countries analyzed in the survey applied the 10 per cent rule. Many countries do not use a predetermined threshold and many non-OECD countries rely on investment approval authorities for the collection of their FDI statistics. See “Foreign Direct Investment: Survey of Implementation of Methodological Standards”, *Financial Market Trends*, OECD, November 1998.

³ Direct investment enterprises comprise those entities that are subsidiaries (a nonresident investor owns more than 50 percent), associates (an investor owns 50 percent or less) and branches (wholly or jointly owned unincorporated enterprises) either directly or indirectly owned by the direct investor.

⁴ For example, a subsidiary can have an interest in its parent company.

- Equity securities have been defined in the *Survey* as instruments and records acknowledging, after the claims of all creditors have been met, claims to the residual values of incorporated enterprises (shares, stocks, participation, American deposit receipts (ADRs), mutual funds, and investment trusts).
- Debt securities include bonds and notes, money market securities (instruments such as treasury bills, commercial and finance paper, negotiable certificates of deposit with maturities of one year or less), and financial derivatives or secondary instruments, such as options. However, in the survey no guidelines or definitions were given for the recording of money market instruments and financial derivatives.

B. Sources of data

There exist different sources of data on cross-border investments which widely differ among themselves, according to the methodologies used. In practice, recording of portfolio investment flows can be inaccurate because of the various types of investments involved, which are channeled through various instruments and mechanisms. Furthermore, the distinction between FDI and FPI sometimes is difficult to make.

(a) Host country capital flows data

The fifth edition of the IMF's *Balance of Payments Manual* introduced key changes in the way balance of payments data are reported. Partly due to the complexity of the Manual, many countries (particularly developing countries) are not yet in compliance with its guidelines.

An international task force was established by the IMF Committee on Balance of Payments Statistics in October 1994 to develop a coordinated portfolio investment survey. The purpose of the survey is to obtain statistics with geographical detail on portfolio investment in nonresident securities - equities and long-term bonds and notes - as at year-end 1997, to exchange the data among countries and ultimately to identify ways of improving statistics on international portfolio investment. In all, 37 countries indicated a willingness to participate in the survey, and it is anticipated that the results will become available by the end of 1999.

Data series on direct and portfolio flows are available from both the IMF and the World Bank, but can differ tremendously for any given country. The IMF utilizes balance of payments data while the World Bank uses data reported under its Debtor Reporting System and market sources of information in order to establish estimates of portfolio investment flows. Their sources are therefore very different. The type of breakdown they provide is also different; the IMF provides annual and quarterly data on all member countries while the World Bank data is for developing countries (under their definition) only and on an annual basis.

Other sources of such data include the Institute for International Finance and private sector sources (mainly private banks). The data may in each case differ according to the data sources and methodology utilized in estimating investment flows and, at the regional and global level, the country coverage of the particular source.

Balance of payments data are known to suffer from misrecording problems whereby transactions are placed under incorrect categories (related problems regarding direct versus beneficiary parties to financial transactions are noted under the section on United States Treasury data below). This problem could be aggravated by the potential difficulties in accurately accounting for derivative instruments which raises special issues that have been the subject of ongoing discussion by the IMF Balance of Payments Committee among others. In addition to this, as already noted, some countries continue to utilize different methodologies in defining and recording direct and portfolio investment. For many countries, particularly lower-income developing countries, the system for recording capital flows is in general deficient as a result of the lower priority placed upon accurate data recording. Data on direct investment flows may be somewhat less affected as they are often available from national agencies approving these investments (the foreign investment board, for example). In financially liberalized economies the difficulty of accurately recording capital flows in general can be accentuated.

There are two potential sources of inaccuracy in the recording of portfolio and direct investment created by the utilization of a specific threshold rule such as the 10 per cent rule - one practical and the other conceptual. A portfolio investor can become a direct investor merely by purchasing additional securities of a company in which they already hold a portfolio investment (even if they have no intention of pursuing a lasting interest). For example, an investor that currently holds nine per cent of a company's shares and buys an additional one per cent should in principle be reclassified as a direct investor under the 10 per cent rule. In such cases, however, there can be practical difficulties in tracking whether an investor has crossed the 10 per cent threshold because their purchases are made incrementally over time.⁵ Likewise, careful monitoring is required in tracking transactions which relate to affiliated companies (and should therefore be classified as direct investment). Such transactions may in fact be classified as portfolio investment because of the cost involved in identifying that the companies are indeed affiliated. The need for such monitoring increases the cost of producing accurate statistics, and it is probable that these issues are not adequately addressed in most countries.

In addition to the difficulty in acquiring accurate estimates of FPI, there is also a more conceptual difficulty in the classification of investments as either portfolio or direct. The 10 per cent rule is an attempt to establish a practical and consistent measure of cases where a lasting interest exists, but the rule may not accurately reflect various "borderline" cases. A portfolio investor might buy more than 10 per cent of the shares of a company without having a lasting interest or a desire to control the company; yet the investment would be classified as a direct investment. Conversely, an investor that holds an eight per cent interest in a company would in principle be a direct investor were they able to successfully exercise a management interest in the company, although their investment would be classified as a portfolio investment.

These two issues would persist with any specific threshold, whether it be 10 per cent or any other number. However, the alternative of classifying as a direct investment all investments where the investor has a lasting interest would require vastly more costly monitoring, if it were even *possible* to distinguish investments on this basis, and raise the cost of statistical collection to an unreasonable level.

⁵ The U.S. Treasury does undertake periodic reclassification of investments in such cases.

(b) Mutual fund asset values

Estimates of portfolio investment flows to emerging markets have sometimes been derived from data on asset values of mutual funds invested in these markets. Micropal and several other companies compile data on emerging market equity funds, and report on their performance (returns to shareholders), size (in terms of net asset value), and type (open- vs. closed-end⁶). Funds are classified as global or regional, and both global and regional performance is analysed in Micropal publications. Some analysts have utilized data on changes in total net assets of open-end funds (or mutual funds) to estimate net equity flows to emerging markets.⁷

When a mutual fund receives additional money from investors, it issues additional units to those investors (i.e. investors buy fund units). The fund then proceeds to invest the money it received from investors in the underlying shares (see appendix to this chapter). Shareholder returns are determined by the fluctuations in the price of underlying shares. Reporting the change in the net asset value of a fund to deduce whether additional funds have been invested between two periods is not possible because changes in net asset value depend both on purchases of new shares and changes in the prices of the underlying shares. Thus, it is conceivable that the net asset value of a fund increases only because the stock market performed well and the value of underlying shares has risen.

Theoretically, this problem could be solved by adjusting the change in net asset value by subtracting the change in the value of underlying shares (as reflected by the change in the index of the market in which investment is made)⁸, which would give the amount of net new investment into an emerging market. However, this methodology has a major shortcoming, as the performance of a stock market index is usually measured as the change in the value of shares included in the index and most funds do not exactly replicate the composition of shares in the index. This will lead to an overestimation or underestimation of new investment. Additional problems appear when a fund is not fully invested in an emerging market⁹.

There is a set of similar problems for closed-end funds, as the performance of the fund is independent from the price of the underlying shares. In this case, using an index to calculate new inflows would not have any meaning.

⁶The distinction between open-end funds and closed-end funds is that the value of the shares in an open-end fund always reflects the value of the underlying shares owned by the fund, whereas the price of the shares of a closed-end fund is determined by the supply and demand for the shares of the fund independently from the value of the underlying shares.

⁷ See, for example, "U.S. emerging market funds: Hot money or stable source of investment capital ?" , John Rea, Investment Company Institute, *Perspective*, December 1996. In his paper, John Rea gives estimates of equity flows based on data for open end funds. A mathematical treatment of Rea's calculation is given in the appendix to this section.

⁸A formal treatment of this methodology is given in the appendix.

⁹Micropal defines emerging market funds as those that invest "more than 60% of their assets into emerging markets".

(c) Source country data on cross-border investment

The United States Treasury data on portfolio transactions by US residents represents the most comprehensive source country data available worldwide, and dates back to 1977 for some countries. The Bank of Japan began recently to publish statistics on Japanese portfolio investment abroad, but that data remains at a fairly aggregated level. The US is generally recognized as the largest single source country for portfolio investment flows to emerging markets, which means that the data can be taken as indicative in a very rough manner of trends in portfolio investment flows to emerging markets. The US Treasury data is therefore unique, but its usefulness is nevertheless constrained in several important respects.

The data series provides monthly data on US residents' gross portfolio purchases and sales of foreign (non-US) stocks and foreign (non-US) long-term bonds (bonds with an original maturity of over one year). Non-US securities denotes securities issued by companies based in countries other than the United States. To be exact, data is available on gross purchases of such securities by US residents from foreigners and gross sales of such securities by US residents to foreigners. Gross purchases of such securities by US residents from foreigners indicate portfolio investment by US residents in foreign securities (outflows of investment from the US). Gross sales of such securities by US residents to foreigners indicate the divestment of US portfolio investment positions in foreign securities (inflows of investment into the US). Net US portfolio investment in foreign securities can be derived by subtracting gross purchases from gross sales (that is, gross outflows from the US less gross inflows into the US represents net investment outflows by US residents).

The data is collected from banks, securities dealers, investors and "other entities" in the US that deal directly with foreign residents regarding transactions in foreign securities. Data is published for a significant number of foreign countries broken down on a regional basis into Europe, Latin America, Asia and Africa. Under each region a category is provided for "other" that includes data for countries not independently identified. A fifth category in addition to these regional groups provides data on transactions undertaken by regional and international organizations.

There are several limitations in interpreting the data as literal indications of portfolio investment flows between the US and foreign countries. First, the data reported by country refer to the country where the foreign counterparty to the transaction is *physically located* (the *direct party*). The country listed does not necessarily correspond to the country of residence of the issuer of the foreign security or the country of residence of the individual/company on whose behalf the transaction is effected (the *beneficial party*). Thus, data for a particular country does not necessarily correspond strictly to investment flows by US residents into and out of securities issued by entities of that country.

For example, data listed under US portfolio investment in Singapore might represent purchases of securities issued by a Thai company on behalf of a Japanese resident that was transacted with funds coming from a bank in the United States, if the securities are purchased from a broker in Singapore. The investment is actually transacted on behalf of a Japanese resident investing in Thai securities, but is in this hypothetical case listed as US investment in Singapore.

The complexity is created by differences of residence of purchaser, issuer and the entities involved directly in the transaction.

The best that can be done is to assume that a major part of the data listed under a particular country correspond to transactions in securities issued by entities resident in that country and US residents. The degree to which this can be regarded to be a reasonable assumption will vary from country to country. For countries that act as centres for international financial transactions this assumption seems less reasonable.

In addition, the data clearly appear to be distorted by the large volume of transactions that take place through international financial centres. A large volume of transactions are conducted by banks, mutual funds and hedge funds through such centres in securities issued by third countries on behalf of residents of third countries. Due to these limitations, care should be exercised in interpreting the data.

C. Relative importance of FDI and FPI

Using IMF balance of payments data on capital flows, it can be seen that over the period 1991-1998, FDI and FPI represented about 90% (respectively 51% and 39%) of total capital flows to emerging markets (Table 1). It is also interesting to note that, on a regional basis, countries in Latin America, in the Middle-East and Europe and countries in transition relied mostly on FPI as a source of capital flows, Asia on FDI and Africa on official flows. In Asia, for the five more advanced countries of East Asia (Indonesia, Malaysia, the Philippines, the Republic of Korea and Thailand) FPI was the most important source of capital, in contrast to the rest of Asia.

There, thus, seems to be a pattern whereby FPI becomes an important source of capital for higher-income countries. This observation is broadly confirmed by a country breakdown. Table 2 reports detailed information on capital flows over the period 1993-1997 for 29 countries (for which a consistent set of data is available). The ten countries¹⁰ which attracted more FPI than FDI are in the higher income bracket (with per capita GDP exceeding 2500 US\$), with the exception of India and the Philippines. For eight of them, the volume of external finance raised through bonds was higher than that raised through equities.

¹⁰These countries are: Argentina, Brazil, India, Mexico, the Philippines, the Republic of Korea, Russia, South Africa, Thailand, Uruguay. For Mexico, FDI and FPI are of equal importance.

Table 1
Net Capital Flows 1991-1998 in Emerging Market Economies¹
(Billions of U.S. dollars)

	Total Capital Flows	Direct Investment	%	Portfolio Investment	%	Other Investment (including Bank Loans)	%	Net Official flows	%
Total	1368.5	692.9	50.6	532.7	38.9	-29.4	-2.1	172.1	12.6
Africa	121.9	33.1	27.2	7.4	6.1	30.0	24.6	51.6	42.3
Asia	426.1	324.9	76.2	48.6	11.4	-53.7	-12.6	106.6	25.0
of which: East Asia ²	238.9	60.8	25.4	76.6	32.1	41.1	17.2	60.5	25.3
Middle East and Europe	211.2	22.1	10.5	97.8	46.3	93.0	44.0	-1.7	-0.8
Latin America	464.9	232.2	49.9	281.3	60.5	-47.0	-10.1	-1.8	-0.4
Countries in Transition	144.3	80.8	56.0	97.8	67.8	-51.6	-35.8	17.1	11.9

Source: IMF, *World Economic Outlook* May 1999.

¹ Emerging markets, as defined by the IMF, include developing countries, countries in transition, the Republic of Korea, Singapore, Taiwan Province of China, and Israel.

Table 2
Net Capital Flows: 1993-1997, 29 Emerging Market Economies
(Millions of U.S. dollars)
(In percent of Capital Flows, net)

Country	GDP per capita 1997	Total Capital Flows	Direct Investment	%	Portfolio Investment	%	Equity Securities	%	Debt Securities	%	Other Investment (including Bank Loans) ¹	%	Capital Flows 1993-97 (in percent of GDP)	Market Capitalization (in percent of GDP)	GDP average annual growth (%)
Egypt	1252.8	9639.5	3603.4	37.4	3930.1	40.8	3057.1	31.7	873.0	9.1	2106.0	21.8	3.2	17.0	4.8
Morocco	1227.2	2179.0	2713.3		461.8		461.8		..		-996.2		1.4	21.1	3.0
Nigeria	338.1	8890.0	7516.8		-366.4		..		-366.4		1739.0		6.0	8.8	3.3
South Africa	3179.4	19176.0	712.6	3.7	16732.0	87.3	7548.1	39.4	9183.9	47.9	1729.0	9.0	3.1	183.6	2.9
Tunisia	2055.0	4771.0	1805.1	37.8	228.3	4.8	121.5	2.5	106.8	2.2	2737.0	57.4	5.5	16.2	4.5
Bangladesh	335.02	833.4	180.2		-34.0		-34.0		..		686.7		0.4	4.8	6.6
China	735.00	174543.0	168490.2		32735.8		22463.4		10272.4		-26683.0		5.1	13.2	10.3
India	396.48	39787.0	8892.2	22.3	14952.4	37.6	14952.4	37.6	..		15940.0	40.1	2.4	36.8	7.1
Indonesia	1072.88	32999.0	16984.0	51.5	12155.0	36.8	7458.0	22.6	4697.0	14.2	3860.0	11.7	3.4	27.3	7.3
Korea	9622.38	57069.9	-8128.1		57205.1		21129.5		36075.6		7992.9		2.7	33.1	7.6
Kuwait	16789.70	-10198.0	-84.3	0.8	-8881.6	87.1	..		-8881.6	87.1	-1231.0	12.1	-7.5	64.6	2.5
Malaysia	4544.82	31953.0	23709.7		-3309.5		..		-3309.5		11553.0		7.6	247.3	8.8
Philippines	1117.38	31235.0	5653.0	18.1	7315.0	23.4	1746.0	5.6	5569.0	17.8	18267.0	58.5	8.7	74.6	5.1
Saudi Arabia	6995.73	33585.0	1287.9		-7784.4		..		-7784.4		40083.0		5.2	35.4	1.0
Singapore	31035.51	-20530.0	17802.4		-42651.1		-39875.4		-2775.5		4320.0		-5.1	166.5	8.3
Thailand	2539.67	56601.0	8375.5	14.8	19922.9	35.2	8982.8	15.9	10940.2	19.3	28302.0	50.0	7.3	68.2	5.9
Czech Republic	5049.9	20071.5	6510.8	32.4	5537.4	27.6	3185.4	15.9	2352.3	11.7	8054.0	40.1	8.7	26.3	3.8
Hungary	4502.7	15390.9	11476.4		7141.5		1574.7		5566.7		-3227.0		7.1	11.6	2.4
Poland	3509.9	17327.0	16468.0		2952.0		1733.0		1219.0		-2093.0		3.1	5.4	6.4
Russia*	3034.4	-2132.0	7528.0		53643.0		3364.0		50279.0		-63303.0		-0.1	9.3	-4.7
Slovenia	9164.8	2185.9	885.8	40.5	829.7	38.0	51.7	2.4	778.1	35.6	470.4	21.5	2.6	4.8	4.0
Argentina	9109.9	46277.0	22055.0		59330.0		1683.0		57647.0		-35109.0		3.2	15.4	3.4
Brazil	5011.8	107258.0	36588.0		105161.0		26377.0		78784.0		-34491.0		3.3	27.7	3.9
Chile	5271.7	22677.9	11521.0	50.8	5141.4	22.7	3376.8	14.9	1764.9	7.8	6016.0	26.5	7.6	108.2	7.9
Colombia	2391.1	24075.2	10266.3	42.6	3024.8	12.6	..		3024.8	12.6	10784.9	44.8	6.2	20.1	4.1
Mexico	4271.0	82135.0	46550.8		43685.2		21334.8		22350.4		-8101.0		4.5	37.2	1.8
Peru	2619.9	21313.0	11053.2	51.9	1338.4	6.3	1170.3	5.5	168.1	0.8	8901.0	41.8	7.7	20.0	7.0
Uruguay	6114.8	1945.0	675.4	34.7	830.1	42.7	..		830.1	42.7	439.4	22.6	2.2	1.2	3.3
Venezuela	3840.7	-6715.0	6595.0		765.0		3642.0		-2877.0		-14075.0		-1.9	11.4	1.5
TOTAL Emerging Market Economies		960600	495100	51.5	408000	42.5					57500	6.0			

Source: IMF, *Balance of Payments Statistics, various issues*; IMF, *World Economic Outlook May 1999*; World Bank, *Global Development Finance 1999*; World Bank, *World Development Indicators 1999*; Natio

* Data for Russia covers the years 1994-97.

¹ Other Investment includes official flows.

The experiences of some individual countries are worth commenting on. For example, among the countries which had a fairly regulated investment regime, China, India, Malaysia, Chile and Colombia exhibited quite different patterns of capital flows. China relied overwhelmingly on FDI and registered a net outflow of other investment (mostly bank loans). India which is still relatively closed to foreign investment attracted mostly portfolio equity investment and other investment (including bank loans); during the recent crisis, India was barely affected by externally induced financial turmoil. Malaysia imported mostly FDI, while exporting portfolio investment. Chile and Colombia attracted mostly FDI.

There is a high concentration of investment flows. Over the period 1993-97, the sixteen biggest recipients of portfolio investment¹¹ had an amount of portfolio flows which is higher than the total of portfolio investment in all emerging markets. Over the same period, the sixteen countries which received the highest flows of FDI¹² totalled an amount of FDI equivalent to 85% of the total of net FDI flows to all emerging markets. Comparing these two groups of countries, it turned out that twelve countries are at the same time the biggest recipients of FDI and of FPI¹³.

¹¹The sixteen countries which are the biggest recipients of FPI are: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Hungary, India, Indonesia, Mexico, the Philippines, Poland, the Republic of Korea, Russia, South Africa, Thailand.

¹²The sixteen countries which are the biggest recipients of FDI are: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Hungary, India, Indonesia, Malaysia, Mexico, Nigeria, Peru, Poland, Singapore, Thailand.

¹³These twelve countries are: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Hungary, India, Indonesia, Mexico, Poland, Thailand.

APPENDIX TO CHAPTER I

Methodology to derive portfolio investment flows from mutual fund asset values

The net asset value of a basket of investment assets can be written as follows:

$$n = I c \quad (1)$$

where : n = net asset value
 I = vector of asset prices
 c = vector of units of assets

In the case of an open-end (or mutual fund), its net asset value is:

$$n = p k \quad (2)$$

where: k = number of issued units
 p = price of a unit

Thus, ignoring fees and charges, the net asset value of a mutual fund (equation 2) should be equal to the net value of the basket of assets in which it is invested (equation 1):

$$n = p k = I c$$

For closed-end funds, this equality does not hold because p is independent from the vector of prices I .

Some analysts have deducted the change in new investment in an emerging market by subtracting the change in the prices of assets owned by the fund from the change in the net asset value of the fund. Differentiating equation (1) gives:

$$\Delta n = \Delta I * c + \Delta c * I + \Delta c \Delta I \quad (3)$$

$$\Delta n - \Delta I * c = (I + \Delta I) \Delta c \quad (4)$$

$$\Delta c = (\Delta n - \Delta I * c) / (I + \Delta I) \quad (5)$$

Equation (5) is then used for calculating the change in purchases of emerging market securities.

Alternatively,

$$\Delta k = (\Delta n - \Delta p * k) / (p + \Delta p) \quad (6)$$

Equation (6) is equivalent to equation (5), i.e. as more units are issued by an open end fund, it follows from equation (2) that more shares were purchased.

Using equation (5), I is taken as the local stock market index or the regional index for regional funds. Thus, the change in new asset investment can be easily deducted.

However, there are problems with this method of calculating the number of shares in the portfolio, unless the fund is "index tracking". An index tracking fund means that the basket of assets u in which the fund is invested exactly replicates the basket of assets included in the index. If this is the case, it is justified to say that there is a fixed relation between the value of the index and the price vector I . If a fund is not index tracking, this methodology fails to measure net new inflows.

More generally, it would appear that the methodology over-estimates or under-estimates net purchases of equities depending on whether a fund performed better or worse than the relevant benchmark index. Moreover, it can happen that the mutual fund is not fully invested in one market: it can hold a part of its assets in the form of cash or investments in other markets. In this case, the market index does not reflect at all the unit price of the fund.

As an example, assume a hypothetical Mexico fund invests only in cement. Suppose these shares increase in price by 100 per cent between period 1 and 2, and assume the fund made no new investment between period 1 and 2. The net asset value of the fund thus increased by 100 per cent. Assuming that the IFC Mexico index increased by 50 per cent, applying equation (5) would give the following result:

Period 1: $n=100$
 IFC Mexico index = 10
 From equation 1 it follows that $c = 10$

Period 2: $\Delta n = 100$ (net asset value of the fund increased by 100 per cent)
 $\Delta I = 5$ (IFC Mexico index increased by 50 per cent)
 From equation (5) it results that $\Delta c = 3.3$, whereas from the assumptions it is clear that the fund made no new purchases of shares between periods 1 and 2.

CHAPTER II

DETERMINANTS AND DEVELOPMENT IMPACT

As noted in Chapter I, it appears that there is an equal concentration of FDI and FPI in a few major recipient countries. Does it mean that both types of investment are driven by the same determinants? Are country factors the dominant factors in determining investment flows?

A. DETERMINANTS

1. FDI Determinants

There has been extensive research on the determinants of FDI¹⁴. In general, the decision to invest abroad is taken by transnational companies (TNCs) if they can combine their ownership-specific advantages with the location-specific advantages of host countries through internalization, i.e. through intra-firm rather than arm's-length transactions. Three broad factors determine the location of FDI: the policies of host countries, the proactive measures countries adopt to promote and facilitate investment, and the characteristics of their economies.

The FDI policy framework, a necessary but not sufficient determinant of FDI location, is becoming relatively less important with liberalization and globalization. The policy framework consists of rules and regulations governing entry and operations of foreign investors, standards of treatment of foreign affiliates and the functioning of markets. Complementing this core FDI policy are other policies such as trade policy and privatization policy. In addition, business facilitation measures are becoming relatively more important. They include investment promotion, incentives, after-investment services, improvements in amenities and measures that reduce the costs of doing business.

Once an enabling FDI policy framework is in place, the most important factors to determine the location of FDI are economic determinants. Historically, the availability of natural resources has been the most important FDI determinant. In modern times, however, TNC participation in natural resource extraction is taking place more through non-equity arrangements and less through FDI, although the value of FDI in natural resources has far from declined.

National market size, in terms of the size and income of the population, has been another important traditional determinant, leading to market-seeking investment. Large markets allow firms to realize scale and scope economies. High market growth rates also stimulate investment in general.

TNCs, producing for international export markets, on the other hand, are attracted by cost-reducing factors such as the large supply of skilled and unskilled labour force and the presence of adequate physical infrastructure. With more and more TNC intermediate products and functions becoming amenable to FDI, TNCs strategies have become more complex,

¹⁴The *World Investment Report 1998* in Chapter IV contained a detailed analysis of FDI determinants. Discussion in the present report summarizes this analysis.

involving the splitting up of the production process into specific activities or functions and carrying out each of them in the most suitable, cost-competitive location. When it comes to economic determinants, firms that undertake competitiveness-enhancing FDI seek not only cost reduction and bigger market shares, but also access to technology and innovative capacity.

2. FPI Determinants

Whereas FDI determinants are well researched, the determinants driving portfolio investors are more complex, involving the interactions of factors related to external environment, investors' strategies and specific host country determinants.

As many developing countries and countries in transition have embarked on a process of market liberalization and structural reform, the number of markets to which international investors were able to allocate their savings has grown substantially over the last ten years. In parallel, the tremendous growth of investible assets managed by institutional investors in OECD countries has flooded international capital markets with liquidity. For example, in 1998, total net assets of OECD pension funds were estimated at around 11 trillion US\$ (14% of which were cross-border investment), while total assets of mutual funds in the world exceeded 8 trillion US\$ (with US funds alone accounting for more than 5 trillion US\$). Accompanied by rapid financial innovation, the combination of these events produced changes in *investor strategies* as well as a re-allocation of funds towards emerging markets.

There are two key factors which explain the increased interest, until the Asian crisis, of international investors towards emerging markets as a group: potentially higher returns and the benefits of diversification. Once the decision is taken to invest in emerging markets, the allocation of funds to specific markets will depend on *host country determinants*. Some host country determinants are of critical importance for fixed income investors and are of minor importance to equity investors and vice-versa.

Host country determinants

Determinants of FPI can be put into two groups: economic determinants and policy/regulatory determinants. Economic determinants are not directly linked to policies aimed at attracting foreign portfolio flows. Instead, they are a reflection of the general health of the economy, the potential for firms operating in such a business environment to earn profits, and to obtain a satisfactory return on fixed income investment. Investors will typically focus on the following factors¹⁵:

- high economic growth rate
- exchange rate stability
- macroeconomic stability
- level of foreign exchange reserves
- health of domestic banking system
- stock and bond market liquidity
- real interest rates.

¹⁵See host country determinants as included in the UNCTAD questionnaire, reported in the appendix to Chapter II.

Some of the above factors will be of more importance to equity investors and others to fixed income investors. For example, high economic growth rates and the liquidity of the stock market will be of particular importance to portfolio managers specialising in equity investments. On the other hand, the degree of bond market liquidity and the level of real interest rates will be of particular importance for fixed income investors.

Although the amount of portfolio capital invested in emerging markets has increased dramatically over the 1990's, the distribution of these flows has remained highly concentrated in countries which are associated with sound macro-economic policies and relatively high growth rates. Thus, Africa which continues to have uncertain growth prospects, received less than one per cent of total equity assets invested in emerging markets. Even in Asia, which accounted for over a half of cumulative foreign portfolio investment between 1990 and 1997, a few countries¹⁶ account for the quasi-totality of such inflows.

The other set of determinants to which foreign investors pay particular attention includes policy and regulatory frameworks in individual emerging markets. These are the factors over which domestic governments have a direct influence. The main determinants in this group are the following:

- ease of repatriating dividends and capital
- domestic capital gains tax
- stock and bond market regulation
- quality of domestic accounting and disclosure standards
- speed and reliability of the settlement system
- availability of domestic custodians and brokers
- degree of investor rights protection.

It is not possible to isolate any single factor as being the most important, although some tend to carry more weight than others. For example, the degree of investor rights protection and the ease of repatriating dividends and capital are often cited as being closely watched by potential investors.

Some governments have used very innovative ways to promote foreign portfolio investment and to facilitate the access of their companies to international finance. For example, as the country moves along the path of liberalization and the opening of capital markets, the government of Mexico started issuing bonds along the entire yield curve to facilitate the placement of Mexican corporate bonds in international markets. The logic behind this move stems from the fact that corporate bonds across the maturity spectrum are priced in direct relation to sovereign debt, according to the perceived risk of each company relative to the sovereign risk. By issuing government bonds of various maturities, the international market was able to price the sovereign debt, and by using the risk premium of each company relative to the sovereign risk, corporate debt could be also be priced easily. The move by the Mexican government was widely welcomed by the international investment community as it increased the transparency of pricing

¹⁶ China, Hong Kong SAR, Singapore, Malaysia, the Philippines, Thailand and Indonesia.

corporate debt. In parallel, this policy paved the way for corporate issuers to access the international capital market and permitted them to calculate the interest rate at which international investors would be ready to lend them funds for various lengths of time.

Foreign investors' strategies - the theory

Until the Asian crisis occurred, there was a strong argument for investing in emerging markets, based on the idea that their GDP growth was much higher than in OECD countries and that local companies, through higher earnings, must benefit from such growth. Over the period 1988-1997 the relative performance of some emerging markets compared to OECD markets lent some support to this thesis. However, even during that period, the overall performance of emerging markets, as defined by the IFCI index, lagged the performance of the US market.

In parallel, as the reform process took hold in a number of Latin American countries, and strong growth persisted in Asian emerging markets, the relative risk of investing in these countries was perceived as being increasingly smaller. In particular, this was evidenced by the continuous narrowing of spreads on emerging market bonds compared to US treasuries over the periods 1993-1994 and 1995- 1997 (see charts 1 to 3), both occurring just before a major international correction in financial markets¹⁷.

As markets started attaching a lower relative risk to emerging market investments, it was, thus, strongly argued that including this asset class in the overall portfolio would lead to higher risk-adjusted returns. The idea of lowering the risk-adjusted returns of a global portfolio by including emerging markets as an important part of invested assets came from the extension of the single market capital asset pricing model which states that the risk of an investor's portfolio can be minimized by holding a diversified portfolio of shares.

Practical problems related to diversification

The benefits of diversification in the context of emerging markets have turned to be lower than widely expected in the early 1990's. In particular, the Asian crisis and the contagion effect to other emerging markets, as well as to the mature markets, has cast doubt on the benefits of investing in emerging markets. The increased awareness of the potential pitfalls of investing in emerging markets is reflected in the replies to a questionnaire sent by the UNCTAD secretariat to a number of fund managers¹⁸ (see appendix to this chapter). Out of 21 replies, 10 fund managers are global investors, and 11 are purely emerging market fund managers.

¹⁷For Latin American countries, bond spreads went down for the whole year 1993, and subsequently after the Mexican crisis, during the period from January 1996 to May 1998 (Chart 1). For East Asian countries, bond spreads were low from January 1993 up to September 1997 (Charts 2 and 3).

¹⁸ The summary of the replies to the questionnaire is attached in the appendix.

Monthly spread of international Emerging Markets bonds over US Treasury bonds
 In basis points
Latin America

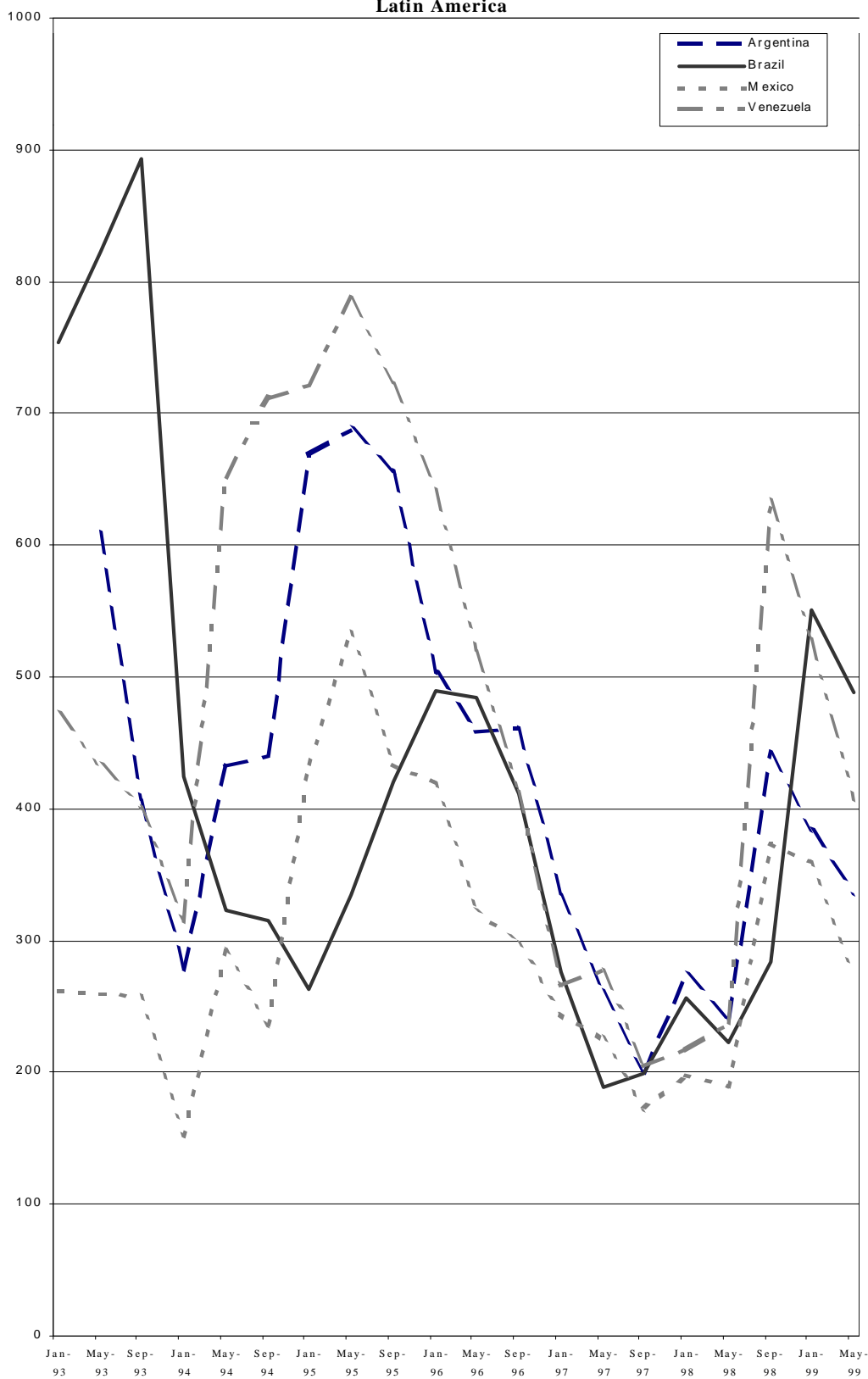


Chart 2
Monthly spread of selected international Emerging Markets bonds over US Treasury bonds
 In basis points Asia

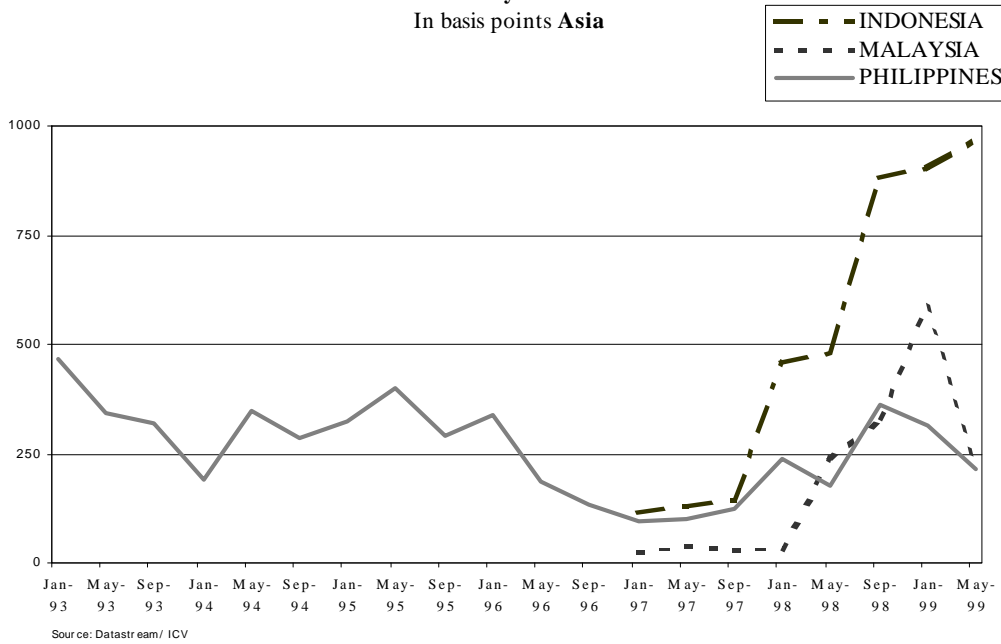
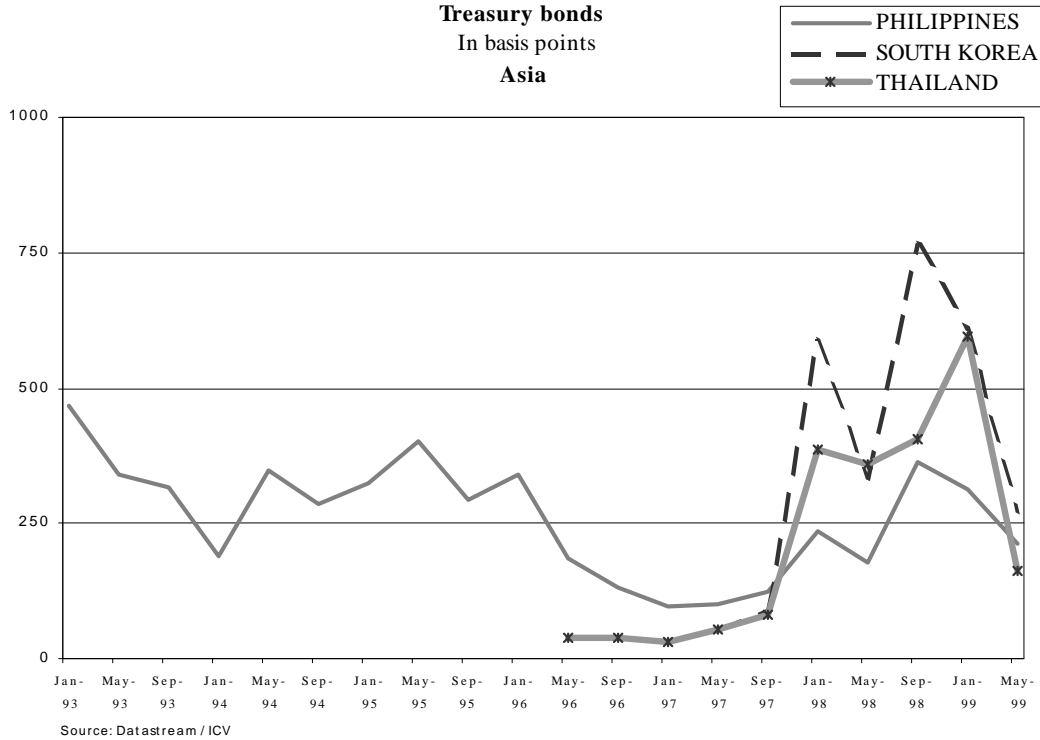


Chart 3
Monthly spread of selected international Emerging Markets bonds over US Treasury bonds
 In basis points Asia



In terms of global asset allocation, the more interesting group is the former, as they have the flexibility to either invest in emerging markets or other markets. The latter are obliged to be fully invested in emerging markets, and are therefore not representative of the shift in asset allocation across markets. Most global investors are found to invest between two and five percent of their portfolio in emerging markets, which is well below the 20 per cent mark that was advocated as being the optimal allocation in the early 1990's. Nine out of ten investors cite as their primary motivation for investing in emerging markets the belief that by doing so they can achieve improved portfolio returns. Yet, six out of ten investors report that including emerging markets in their portfolio resulted in decreased overall returns, two are uncertain of the benefits and only two investors report improved returns. Since the outbreak of the Asian crisis, nine investors report that emerging markets have decreased their overall returns and one is uncertain. A further blow to the diversification hypothesis comes from the fact that 40 per cent of investors report that including emerging markets as an asset class has raised the volatility of their returns even prior to the Asian crisis. This percentage increases to 60 per cent when the period of the Asian crisis is included.

However, most investors do not believe that the idea of benefits of diversifying into emerging markets has been disproved, yet half of the investors plan to reduce their positions in emerging markets. This is slightly contradictory, in particular when answers to previous questions are taken into account. In short, it would appear that the Asian crisis has cooled international investors towards the idea of benefits of investing in emerging markets, although it is too early to judge whether this is a short term phenomena or it reflects a shift in attitude which will shape investment decisions for years to come.

A study by INTERSEC¹⁹ on investment decisions made by US pension funds confirms a number of conclusions drawn from the UNCTAD's questionnaire, and sheds some additional light on factors which determine the relative performance of different emerging market fund managers. This study lists by order of importance the following steps taken by investors in deciding on international equity investment: stock selection, country allocation, industry/sector allocation within country, currency management and world industry/sector allocation. For fixed income (bonds) investors, the following factors, by order of importance, are taken into account: currency forecast, interest rate forecast, yield curve analysis and credit analysis.

Another interesting point raised in the INTERSEC study relates to the impact of different investment/management styles on investment returns. It says that bottom-up managers performed better (i.e. had smaller losses) than top-down/bottom-up managers²⁰. However, both types of managers beat the index over the four year period. During 1998, bottom-up managers also performed better than top-down/bottom-up investors, and also performed better than the index. The latter group underperformed the index. Moreover, the study shows the relative impact on a fund's performance of having offices in emerging markets: local presence in emerging markets does not influence returns, neither on a four year average or for 1998 alone. Paradoxically, fund

¹⁹ INTERSEC Research Corp., Connecticut, USA.

²⁰A "top-down" investment strategy attaches more importance to the macroeconomic environment of the host country first, while a "bottom-up" strategy makes a first selection at the level of individual companies.

management firms without offices in emerging markets performed slightly better over the last four years.

There are a few reasons which help explain the underperformance of emerging market investment in boosting the risk-adjusted returns of a global portfolio. First, globalisation and the increasing international integration of local financial markets has increased the correlation between individual emerging markets and between emerging and developed markets. The correlation coefficient between the IFCI index and the S&P 500 reached 0.4 by 1997, which corresponds to the correlation between the UK and US stock markets. Although a high cross-market correlation does not entirely erase diversification benefits, it makes them much weaker, thus reducing the attractiveness of emerging markets.

The first signs of increasing correlation could have been observed as early as 1994 when the US Federal Reserve Board engaged in a series of monetary tightenings. The result of these tightenings was a sharp fall in the price of US treasuries, provoking one of the most severe bond bear markets in this century. The reasons for the sharp downturn in the US bonds is beyond the scope of this paper²¹. There was a corresponding collapse of prices of emerging market debt instruments. It has been widely asserted that due to rising US interest rates a number of leveraged investors had to sell securities across the board in order to meet the margin calls in US markets where they sustained heavy losses. This in effect led to a domino effect, and all markets experienced a sharp correction during 1994. Even without the leverage effect, the attractiveness of international fixed income and equity instruments would have diminished and downward pressure on prices would have occurred. The decline in bond prices subsequently led to a decline in equity prices in mature and emerging markets. In fact, in percentage terms, the index of a number of emerging equity markets suffered a larger drop than the US equity market.

As investors are questioning the real benefits that they can reap from diversifying their investments into emerging markets, there is a strong probability that the flow of portfolio investment will not be sustained at the same level as it occurred in 1993 and 1996. Because of abundant liquidity on international capital markets, there will continue to be interest in emerging market investment, but investors will likely be more demanding on the quality and security of assets in which they will invest.

B. DEVELOPMENT IMPACT

From a purely financial point of view, FDI and FPI as components of capital flows may contribute to fill the financing gap needed to complement domestic savings. The literature on the "debt cycle" has well documented the role of external finance in filling the savings-investment gap and providing the foreign exchange to support growth and development. This contribution of capital flows to financing growth is in fact verified to some extent in the case of emerging market countries included in Table 2. Thus, excluding notable capital exporting countries like Kuwait and Singapore, there is a reasonably significant correlation between capital flows and growth: the correlation coefficient between the capital flows in per cent of GDP and

²¹ The steepness and rapidity of falls of US bond prices has been partly attributed to the unwinding of large leveraged positions by hedge funds.

average annual GDP growth rates, over the period 1993-97, for the remaining countries, is equal to 0.36.

The contribution of external finance to growth can be direct through the financing of investment, which is invariably a source of growth, or indirect through an increase in consumption or absorption, which in turn will induce an increase in investment. The developmental impact is the greatest in the case of direct financing of investment, while the financing of non-productive expenditure can lead to destabilizing effect of overheating or of speculative investment.

Investment flows can also bring ancillary services in the form of non-financial benefits to the host economy by enhancing the business environment in which firms operate. Furthermore, as economic activities can be risky and subject to uncertainties, if, by sharing risks, investors can encourage entrepreneurs to produce, this form of contribution is also very positive.

On the negative side, external finance can become a real burden for the host economy if the cost of such finance exceeds the benefit derived and weighs heavily on the balance of payments. Such cost takes the form of interest and dividend payments in the case of FPI, repatriation of earnings and profits, either openly or through transfer prices, and imports of capital and intermediate goods, in the case of FDI. Negative impact can also arise when foreign investment flows displace domestic savings through a substitution effect or when foreign investment crowd out domestic firms through unfair competition or monopolizing domestic savings (as could happen in the case of FDI). Furthermore, volatility or rapid reversal of investment flows can be detrimental to economic development as it increases risks and uncertainties and induce high instability in macroeconomic variables.

There have not been many empirical studies on the developmental impact of FDI, and even less of FPI. In the following sections, an account will be made of the possible effects of FDI and FPI on development, without attempting to provide an empirical assessment of these effects²².

1. Role of FDI

At first sight the contribution of FDI to development is direct: TNCs establish subsidiaries and affiliates which directly increase the level of investment in host countries and augment their productive capacity and employment. FDI can also bring ancillary services in the form of transfer of technology, management expertise and marketing skills, although this is not always the case. FDI can broaden the access to export markets as TNCs often serve as channels for the distribution of goods from one country to other markets. TNCs also assume fully the risks that their affiliates might encounter in their activities in host economies. In principle earnings are repatriated if the affiliates are profitable, thus investment will be repaid by profits.

²²See also for a brief account of the developmental impact of FDI and FPI: "Foreign Portfolio investment (FPI) and Foreign Direct Investment (FDI): Characteristics, similarities, complementarities and differences, policy implications and development impact", TD/B/COM.2/EM.6/2, 15 April 1999.

On the negative side, FDI entails a loss of control on domestic production, and even possibly on domestic development options. As FDI is firm- and sector-specific, the development of particular sectors of production will be left to foreigners' choice and not to deliberate domestic options. Furthermore, FDI can crowd out domestic enterprises through unfair competition and through raising important sums of local savings. FDI can also have a negative impact on the balance of payments if production by affiliates requires important volumes of imports, the more so if production is geared towards host country's domestic markets and not towards export markets. FDI can be costly in the long run, as repatriated earnings and royalties tend to increase with the maturity of affiliates.

2. Role of FPI

As there are many forms of FPI, the contribution to development can be direct as well as indirect. FPI is a fungible form of finance, i.e. it is not firm- or sector-specific. It can be used by domestic enterprises and foreign-owned enterprises. Sometimes, by increasing the amount of finance available for domestic enterprises, it can enhance their competitiveness.

Some forms of FPI, such as venture capital, primary equity issues (on the domestic or international capital markets) and corporate bonds can make a valuable direct contribution to the financing of investment. Other forms of FPI such as purchases by foreigners of securities on domestic secondary markets, most of government bonds and derivatives have rather an impact on domestic wealth and absorption. This will increase consumption through two channels. First, the positive wealth effect generated by the increase in asset prices could encourage an increase in consumption by wealth holders, unless they decide to invest in other securities or assets. Secondly, portfolio asset purchases from residents increase bank liquidity and encourage a credit boom. The increase in domestic absorption is not a bad thing in itself, if this also leads to an increase in investment through the accelerator effect. However, if credit boom increases opportunities of financing speculative activities or has a high inflationary pressure, the economy will suffer a setback.

FPI can also bring ancillary benefits through addition to the liquidity of domestic capital markets, thus favouring its development. It can also encourage the development of other financial intermediaries, thus strengthening the financial infrastructure and deepening the process of financial intermediation. FPI can also lead to more corporate governance, as more transparency and disclosure will be required from companies by foreign investors. Such developments on domestic capital markets can increase the amount of risk capital available for new enterprises.

On the negative side, the costs of finance can be higher than the benefits derived therefrom. If equity investment involves some degree of risk sharing, it is not the case for bonds, which require the payment of coupons, unrelated to the profitability of enterprises which issued these bonds. But the biggest negative impact is the high volatility risk of FPI.

3. Volatility

Volatility of capital flows is characterized by the high frequency of the reversibility of flows or by a high variability in the volume of capital inflows. Reversibility and variability result from the fact that capital flows are highly sensitive to changes in their determinants. Volatility

of capital flows can create an unstable investment environment detrimental to growth and development. There are many channels through which volatility exert a negative impact on the economy. The first is through unexpected changes in the availability of finance, and consequential changes in its cost and in asset prices. This will induce high variability in expected profits, making difficult investment planning. The second is through the effects of compensatory adjustment in monetary, fiscal and exchange rate policies in the face of rapid changes in the availability of external finance. And finally, capital volatility has an impact on consumption, and consequently on growth.

FDI is in general less volatile than FPI. FDI is made in recipient countries through the establishment of production lines which would be difficult to dissolve in a short time. Therefore, disinvestment or reversibility is much more difficult to undertake than in the case of portfolio investment, which can be easily sold off on financial markets.

On the basis of the determinants analyzed above, the volatility can be explained by the interplay of different factors which would influence the risks and returns of investment²³. These factors include:

- changes in fundamentals;
- volatility of local stock markets;
- financial factors (such as exchange and interest rates), domestic and external, and liquidity on international capital markets;
- investment cycles;
- contagion;
- assymmetric information;
- strategies and behaviour of portfolio investors.

While financial markets are inherently volatile, the typical situations which increase the volatility of capital flows to emerging market countries are characterized by boom-bust cycles of investment and by contagion. Under conditions of ample liquidity on international capital markets, capital tends to overflow into a few countries which appear to have strong fundamentals (high GDP and export growth, a high level of domestic savings and macroeconomic stability). Excess capital flows induce real currency appreciation and excess liquidity in the domestic financial system. Excess liquidity encourages asset bubbles and increases in speculative investments.

As excess capital inflows induce persistently high current account deficits, investors change their perceptions of the creditworthiness of the countries, especially in the presence of weak domestic financial systems. The sudden and sharp withdrawal of capital is often triggered by a speculative attack on the currency which is perceived as being overvalued.

²³For an analysis of the causes of portfolio investment volatility, see also Reports by the UNCTAD secretariat: "The Growth of Domestic Capital Markets, Particularly in Developing Countries, and Its Relationship with Foreign Portfolio Investment" (TD/B/COM.2/EM.4/2, 19 March 1998) and "Foreign Portfolio Investment: Implications for the Growth of Emerging Capital markets" (UNCTAD/GDS/GFSB/4, 9 September 1998).

The amplitude of the ebb-and-flow movements of capital flows is caused by herd behaviour of investors. This herd behaviour is in turn the consequence of asymmetric information, which makes that investors react in concert to the same source of information, often provided by credit rating agencies. In addition, other investment strategies such as benchmark performance, leveraged investment and the pursuit of short-term capital gains add to the overreaction by investors to any change in fundamentals or in financial factors (be it internal or external to recipient countries).

Sharp fluctuations in capital flows cause major disruptions to domestic financial systems not only through drastic changes in liquidity, but also through changes in asset prices. Large inflows and outflows of foreign investment can have an important impact on domestic asset prices, especially in insufficiently developed markets. Furthermore, changes in asset prices can rapidly transmit the shock waves to other markets, for example from foreign exchange markets to stock markets, and from a class of securities of one particular country to the same class of securities of another country. Through the contagion process, a loss of investor confidence in one country that is having severe economic difficulties leads to a loss of confidence in other countries. Contagion hits countries which have a similar economic structures or policy characteristics, which belong to the same region, or which are simply affected by panic reactions by investors despite the existence of good fundamentals.

The fluctuations in capital flows may also result from factors on which the recipient countries do not have control. Such factors pertain from changes in policies or in the investment environment of capital exporting countries. It has been earlier noted that a change in US monetary policy in 1994 led to a serious downturn in asset prices in emerging markets and was one of the causes of the Mexican crisis.

These considerations make that FPI tends to be more volatile than FDI. This is confirmed by a comparison of the coefficient of variation, which is a measure of the variability, of FDI and FPI. Table 3 shows the coefficients of variation of capital flows and their components (FDI, FPI and other investment, which is mainly bank loans) over the period 1990-98. For the 29 countries reported, the values of the coefficients of variation are the highest for the category "other investment" in 16 countries, they are the highest for FPI in 9 countries, and for FDI in only 4 countries²⁴. Comparing the coefficients of variation of portfolio equity securities and portfolio debt securities, it turns out that debt securities are more volatile than equity securities, in 19 cases out of 29.

The higher volatility of FPI inflows (liabilities) as compared with FDI inflows can also be seen from Chart 4, which shows the quarterly changes in these two types of flows during 1993-1998 in the 4 countries which have gone through severe financial crisis (Indonesia, Mexico, the Republic of Korea and Thailand). The FDI charts show much less fluctuations and flows are always positive, except in the case of Indonesia during the 4th quarter of 1997 and the 1st quarter of 1998. On the other hand, FPI registered net outflows during critical crisis periods: for Indonesia from 1997-3rd quarter to 1998-2nd quarter; for Mexico from 1994-3rd quarter to 1995-3rd quarter and during 1997-3rd and 4th quarters; for the Republic of Korea during 1997-4th quarter

²⁴Among the 4 countries of the last group, Kuwait and Saudi Arabia are oil-exporting countries, and during the period considered, went through a major political crisis (the Gulf war).

and 1998-1st quarter; and Thailand during 1994-1st quarter and 2nd quarter. It also appears that FPI is capable of rapid recovery and the periods of net outflows were rather short. If FDI flows exhibit more stability, exchange rate risks may induce certain behaviour by TNCs which may reduce flows of capital in host countries or may exacerbate their balance of payments problems. For example, they can increase reliance on local currency financing, speed up payments and transfer abroad before a devaluation.

Table 3
Capital Flows: Average (Millions of US dollars) and Coefficient of Variation 1990-1998 (or latest available year)

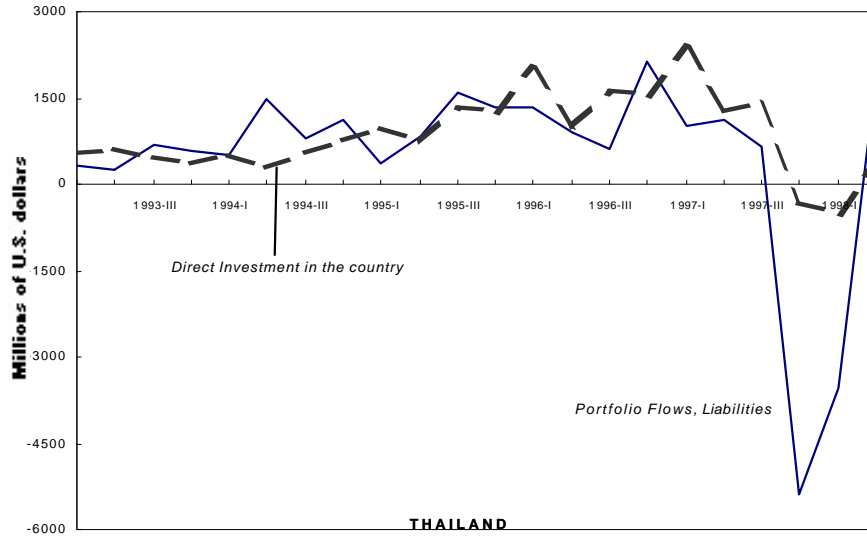
Country	Capital Flows before Changes in Reserves		Direct Investment		Portfolio Investment		Equity Securities		Debt Securities		Other Investment, net	
	Average	Coeff. of Variation	Average	Coeff. of Variation	Average	Coeff. of Variation	Average	Coeff. of Variation	Average	Coeff. of Variation	Average	Coeff. of Variation
Egypt	96.3	50.1	621.4	0.5	496.5	1.8	382.1	1.9	114.4	1.8	-1214.3	-3.7
Morocco	778.6	0.8	445.4	0.6	58.2	1.5	58.2	1.5	0.0	0.0	275.0	2.9
Nigeria	-24.8	-125.4	1214.2	0.4	157.5	4.5	0.0	0.0	157.5	4.5	-1396.5	-2.4
South Africa	2332.0	1.3	-24.5	-22.7	2039.0	1.4	663.3	2.8	1302.5	0.9	317.1	2.6
Tunisia	807.8	0.4	315.7	0.6	38.8	0.9	24.9	0.7	13.8	1.4	453.1	0.5
Bangladesh	317.2	1.0	23.5	2.0	-2.8	-21.4	-2.8	-21.4	0.0	0.0	296.4	1.1
China	23310.1	0.7	22719.5	0.7	4315.0	0.8	3038.8	0.9	1276.2	1.1	-3724.4	-2.6
India	6929.8	0.4	1320.3	0.9	2177.2	0.9	2177.2	0.9	0.0	0.0	3869.1	0.6
Indonesia**	4992.7	0.9	2217.6	0.9	806.0	4.0	493.8	5.1	536.4	3.7	1969.0	1.0
Korea Rep.**	7719.8	1.1	-971.8	-0.9	7127.9	0.9	3137.9	0.7	3990.0	1.4	1563.7	4.4
Kuwait	5005.9	3.0	-168.5	-6.1	-1199.0	-1.6	0.0	0.0	-1199.0	-1.6	6373.5	2.2
Malaysia	6013.0	0.6	4403.0	0.2	-564.5	-1.0	0.0	0.0	-564.5	-1.0	2174.6	1.5
Philippines	4915.4	0.6	869.4	0.5	926.9	2.0	873.0	2.0	708.6	1.6	3119.3	0.4
Saudi Arabia	9004.0	1.2	404.1	3.7	-2144.4	-2.9	0.0	0.0	-2144.4	-2.9	10744.4	0.8
Singapore	-1555.6	-3.2	3324.0	0.4	-5263.2	-0.9	-4871.6	-1.0	-391.6	-2.5	383.9	8.5
Thailand	10832.3	0.8	1811.5	0.4	2591.0	0.8	1239.4	1.1	1351.6	1.0	6429.8	1.5
Czech Republic**	3525.6	0.7	1297.7	0.5	1103.9	0.3	603.4	0.4	500.5	0.4	1129.2	1.9
Hungary**	3098.1	1.0	2155.0	0.5	1520.8	1.2	416.5	0.8	1149.1	1.9	-665.0	-1.8
Poland	2395.9	2.3	2190.0	0.9	738.0	1.6	577.7	0.4	304.8	3.3	-163.1	-24.8
Russia*	-533.0	-20.5	1882.0	0.7	13410.8	1.6	841.0	1.2	12569.8	1.7	-15825.8	-1.4
Slovenia*	362.1	1.3	166.4	0.4	136.8	1.9	51.7	0.0	128.2	2.0	58.9	5.9
Argentina	6965.6	0.8	3793.6	0.4	7426.8	1.3	324.3	1.9	7183.5	1.3	-4254.8	-1.8
Brazil	15240.4	0.8	4865.6	1.4	15493.4	1.0	3595.3	0.8	11898.1	1.2	-5118.5	-3.4
Chile**	3571.3	0.6	1711.4	0.7	602.4	1.4	368.7	1.8	233.9	1.3	1257.6	0.7
Colombia**	3046.6	0.9	1649.4	0.9	382.7	1.5	0.0	0.0	382.7	1.5	1014.5	1.5
Mexico	17925.8	0.5	7292.5	0.5	8880.5	1.4	4305.5	0.7	4575.1	2.1	1752.8	6.2
Peru	3339.9	0.5	1403.0	1.0	267.7	0.6	234.1	0.6	33.6	1.6	1767.1	0.4
Uruguay**	199.2	1.7	135.7	0.1	164.6	0.7	0.0	0.0	164.6	0.7	-56.0	-4.1
Venezuela**	-473.0	-5.4	1385.4	1.2	2084.2	2.5	445.6	1.2	1638.7	3.3	-3942.7	-1.5

Source: IMF, *Balance of Payments Statistics, various issues*; and National Sources.

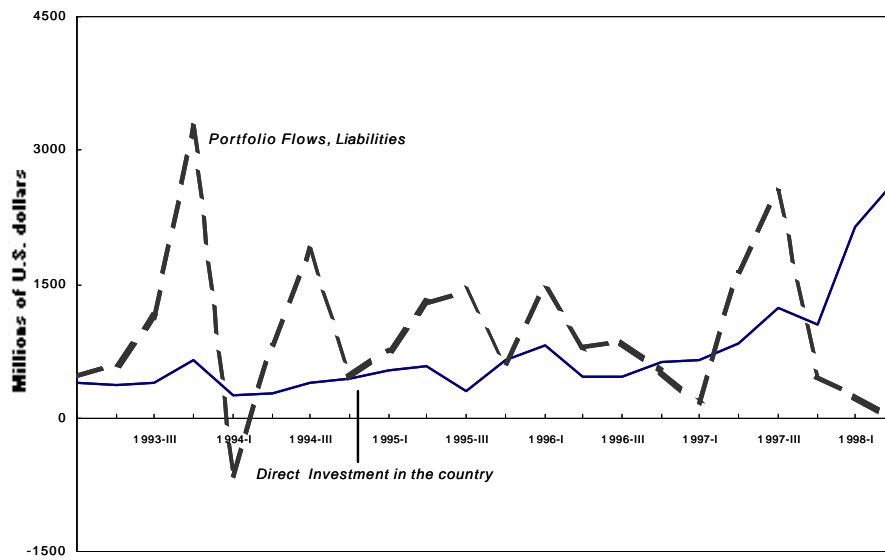
* Data for Russia covers the years 1994-97 and for Slovenia the years 1992-97.

** Data covers the years 1990-98, except for the Czech Republic which is 1993-98.

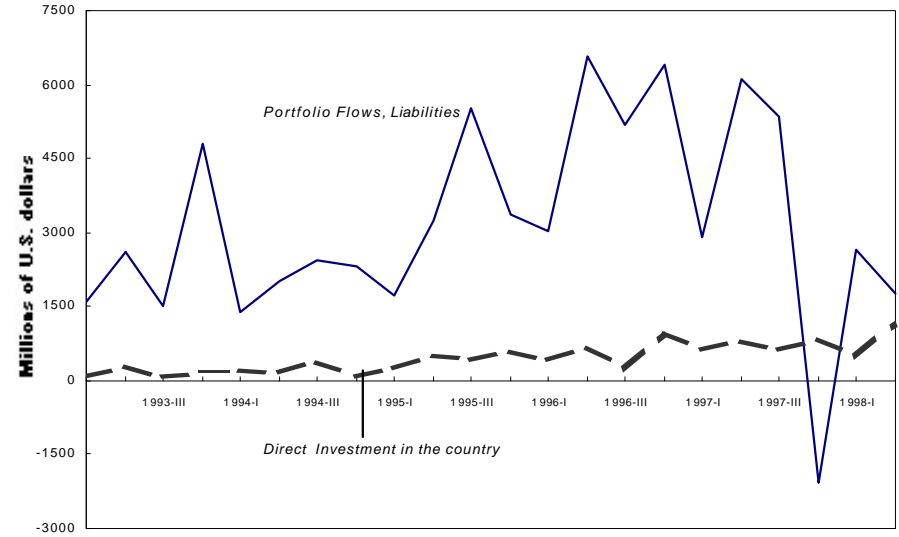
INDONESIA
Inflows of Direct and Portfolio Investments,
1993-1998



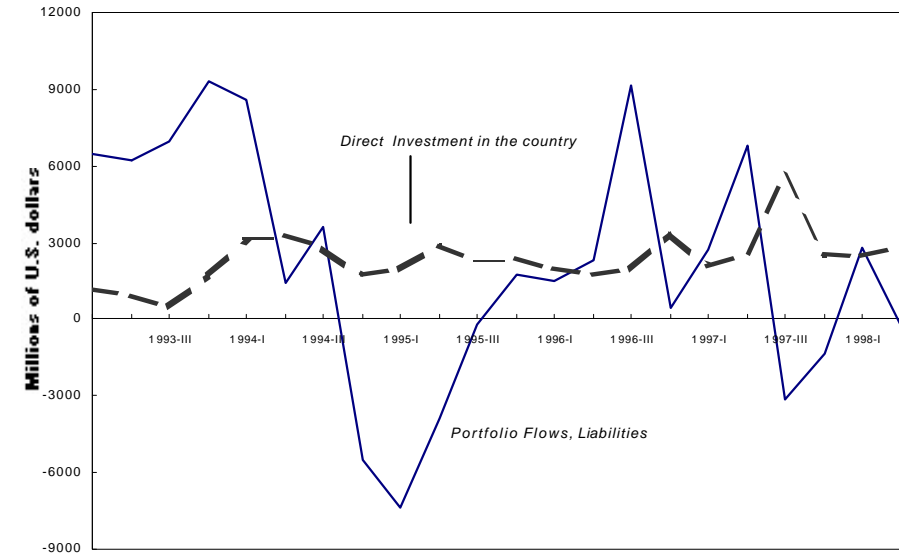
THAILAND
Inflows of Direct and Portfolio Investments,
1993-1998



KOREA, Rep. of
Inflows of Direct and Portfolio Investments,
1993-1998



MEXICO
Inflows of Direct and Portfolio Investments,
1993-1998



APPENDIX TO CHAPTER II**United Nations Conference on Trade and Development
Questionnaire Analysis (February 1999)**TYPE OF FUND: **Global** NUMBER OF REPLIES: **10**

1.	Do you invest in emerging markets? 10 YES <input type="checkbox"/> NO	
	If yes, do you follow a bottom-up or top-down investment strategy?	2 BOTTOM-UP One uses both 7 TOP-DOWN
	What proportion of your total portfolio is allocated to these markets? Max : 30% Mostly: 2-5% Min: 0.1%	What is the maximum exposure you are willing to take on any single emerging market as a percentage of your overall portfolio? Max 25%, Min 1%
2.	What do you believe are the main benefits from investing in emerging markets? Other (Please Specify briefly)	9 Improved Portfolio Return <input type="checkbox"/> Diminished Portfolio Risk 1 says diversification
3.	How did your emerging markets investment(s) affect the return of your global portfolio:	
	Over the last 8 Years? 2 Increase 6 Decrease 2 Uncertain	Since the Asian crisis <input type="checkbox"/> Increase 9 Decrease 1 Uncertain
4.	Did your emerging market investment(s) diminish/increase the volatility of your global portfolio returns significantly? One investor has such a small allocation that it has no impact on his portfolio.	
	Diminished Volatility: <input type="checkbox"/> Prior to the Asian Crisis (August 1997 to the present) <input type="checkbox"/> Including During the Asian Crisis	Increased Volatility: 4 Prior to the Asian Crisis (August 1997 to the present) 6 Including During the Asian Crisis
	1 No Change in Volatility	1 Unable to Discern the Impact
5.	Has the "Asian crisis" changed your fundamental attitude towards the benefits of investing in emerging markets? 6 YES 4 NO If yes, then how?	
	The whole idea of the benefits of diversifying into emerging markets has been disproved 2 YES 8 NO	You plan to reduce your position but continue investing in emerging markets? 5 YES 5 NO
	You plan to discontinue investing in emerging markets for the short-term (Within one year from today) <input type="checkbox"/> YES 9NO	You plan to discontinue investing in emerging markets also in the medium to long term (beyond 1 year) <input type="checkbox"/> YES 9 NO
	Other (please specify briefly) One reply: positions reduced will be increased when economic outlook improves.	

6.	How do you see the evolution of emerging market returns in the next five years?			
7.	Please indicate to what degree the following attributes are important in determining whether you invest in an emerging market.	Irrelevant	Important	Critically Important (Will not invest in absence of)
<i>Macroeconomic Factors:</i>				
High economic growth rate		4	5	1
Degree of exchange rate stability		<input type="checkbox"/>	10	<input type="checkbox"/>
Level of foreign exchange reserves		<input type="checkbox"/>	10	<input type="checkbox"/>
Ability to repatriate dividends/earnings and capital		<input type="checkbox"/>	1	9
General macroeconomic stability		<input type="checkbox"/>	8	2
Health of domestic banking system			9	1
<i>Creditworthiness:</i>				
Country creditworthiness rating (N/A: 3)				
<i>Market Factors:</i>				
Size of stock market capitalization		3	7	<input type="checkbox"/>
Size of bond market		6	4	<input type="checkbox"/>
Degree of stock market liquidity		2	7	1
Degree of bond market liquidity		6	4	<input type="checkbox"/>
Domestic capital gains tax		3	6	1
Quality of stock market regulatory framework		<input type="checkbox"/>	10	<input type="checkbox"/>
Quality of domestic accounting/disclosure standards		<input type="checkbox"/>	10	<input type="checkbox"/>
Speed and reliability of settlement system		1	5	4
Availability of domestic custodians and brokers		<input type="checkbox"/>	7	3
<i>Political and legal framework:</i>				
Degree of political stability		1	7	2
Degree of investor rights protection		<input type="checkbox"/>	8	2
Other (please specify)				

**United Nations Conference on Trade and Development
Questionnaire Analysis(February 1999)**

TYPE OF FUND: Emerging Market NUMBER OF REPLIES: 11

1.	Do you invest in emerging markets? 11 YES <input type="checkbox"/> NO	
	If yes, do you follow a bottom-up or top-down investment strategy?	5 BOTTOM-UP 3 uses both 3 TOP-DOWN
	What proportion of your total portfolio is allocated to these markets? 100%	What is the maximum exposure you are willing to take on any single emerging market as a percentage of your overall portfolio? Max 100%, Min 10%
2.	What do you believe are the main benefits from investing in emerging markets? Other (Please Specify briefly)	8 Improved Portfolio Return 2 Diminished Portfolio Risk 1 Both
3.	How did your emerging markets investment(s) affect the return of your global portfolio:	
	Over the last 8 Years? 5 Increase 1 Decrease <input type="checkbox"/> Uncertain N/A: 5	Since the Asian crisis 3 Increase 3 Decrease <input type="checkbox"/> Uncertain N/A: 5
4.	Did your emerging market investment(s) diminish/increase the volatility of your global portfolio returns significantly? (N/A: 5)	
	Diminished Volatility: <input type="checkbox"/> Prior to the Asian Crisis (August 1997 to the present) <input type="checkbox"/> Including During the Asian Crisis	Increased Volatility: 2 Prior to the Asian Crisis (August 1997 to the present) 5 Including During the Asian Crisis
	<input type="checkbox"/> No Change in Volatility	<input type="checkbox"/> Unable to Discern the Impact
5.	Has the "Asian crisis" changed your fundamental attitude towards the benefits of investing in emerging markets? <input type="checkbox"/> YES 11 NO	
	If yes, then how?	
	The whole idea of the benefits of diversifying into emerging markets has been disproved <input type="checkbox"/> YES 9 NO	You plan to reduce your position but continue investing in emerging markets? 2 YES 6 NO
	You plan to discontinue investing in emerging markets for the short-term (Within one year from today) <input type="checkbox"/> YES 9 NO	You plan to discontinue investing in emerging markets also in the medium to long term (beyond 1 year) 1 YES 9 NO
	Other (please specify briefly)	

6.	How do you see the evolution of emerging market returns in the next five years?			
7.	Please indicate to what degree the following attributes are important in determining whether you invest in an emerging market.	Irrelevant	Important	Critically Important (Will not invest in absence of)
<i>Macroeconomic Factors:</i>				
High economic growth rate		2	9	<input type="checkbox"/>
Degree of exchange rate stability		2	7	2
Level of foreign exchange reserves		2	9	<input type="checkbox"/>
Ability to repatriate dividends/earnings and capital		1	2	8
General macroeconomic stability		2	8	1
Health of domestic banking system		2	6	3
<i>Creditworthiness:</i>				
Country creditworthiness rating (N/A: 3)		2	3	3
<i>Market Factors:</i>				
Size of stock market capitalization		3	7	1
Size of bond market		7	4	<input type="checkbox"/>
Degree of stock market liquidity		1	8	2
Degree of bond market liquidity		7	4	<input type="checkbox"/>
Domestic capital gains tax		4	6	1
Quality of stock market regulatory framework		<input type="checkbox"/>	6	5
Quality of domestic accounting/disclosure standards		<input type="checkbox"/>	6	5
Speed and reliability of settlement system		<input type="checkbox"/>	8	3
Availability of domestic custodians and brokers		2	7	2
<i>Political and legal framework:</i>				
Degree of political stability		2	9	<input type="checkbox"/>
Degree of investor rights protection		1	4	6
Other (please specify)				

CHAPTER III

POLICY IMPLICATIONS

From the analysis of the preceding chapters, it appears that FDI and FPI have different characteristics. FDI and FPI address different financing needs: the first one is foreign-owned, while the latter one is more used by domestic companies/entities. FDI is firm- and sector-specific, while FPI is more fungible. FPI has a greater macroeconomic impact (through changes in asset prices and liquidity in the financial sector), while FDI can have a significant impact at the microeconomic level, shaping the productive structure of a host country. Unlike FDI, portfolio investors do not have managerial responsibilities in their investment and very often do not have a physical presence in host countries. The decision by TNCs to undertake FDI in one particular country is influenced mainly by this country's determinants, while FPI can be affected by factors external to host economies, such as financial policies in capital exporting countries, the state of liquidity on international capital markets, and changes in the pattern of diversification of international portfolio. And finally, FPI has a shorter investment horizon and is more liquid and more volatile than FDI.

Given these differences, the following policy implications could be suggested:

- The policy regimes governing these two types of foreign investment would be different. Policies to attract FPI would have to proceed in a more cautious way, as the volatility of FPI flows could have a negative impact on recipient economies. In this respect careful consideration could be given to the question of including or excluding portfolio investment from investment agreements.
- Countries should be allowed to adopt measures (other than fiscal and monetary measures) to "fine-tune" capital inflows and outflows in order to avoid boom-bust cycles of capital flows, especially of portfolio investment. It would be preferable that such measures are market-based as the cost involved might be minimized.
- Efforts could be made to design measures and support to enhance access by emerging market countries to some types of portfolio investment which can provide relatively stable sources of finance.

A. FPI AND INVESTMENT AGREEMENTS

1. Objectives and clauses of investment agreements

The 1990s has seen a phenomenal increase of investment agreements/treaties. Not less than 1330 bilateral treaties were recorded in January 1997²⁵. There have also been negotiations at regional and multilateral levels. Among them, the most noticeable are the collapsed negotiations on the OECD Multilateral Agreement on Investment (MAI).

²⁵UNCTAD World Investment Report 1997, annex table B.10.

The objectives for entering into any investment agreements are, broadly speaking, threefold:

1. To provide a more transparent and stable investment framework to investors by giving greater clarity to the rules governing foreign investment and making them binding or formally acknowledged.
2. Another most commonly cited objective for signing investment agreements is to protect the property and rights of foreign investors. Deriving from this principle, there are such clauses in investment agreements as:
 - ! National treatment: This is a standard element of investment treaties ensuring non-discriminatory treatment for foreign investors vis-a-vis nationals of host countries. Though the wording “ be treated at least as well as their domestic counterparts” , “ no less favorable than...” could legally mean there could be instances when foreign investors even receive more favorable treatment, such as offering special incentives to attract foreign investment.
 - ! Compensation for losses: Losses suffered by investors owing to war and other armed conflicts, riots and so on shall be accorded compensation or any other kinds of settlements.
 - ! Expropriation: Seizure of property by a country under conditions not included in stipulated exceptions should be compensated without delay.
 - ! Free transfer of funds: Ensuring freedom of transferring funds related to capital investment, returns and earnings, and other remunerations of capital and personnel, in and out of the territory is the essence of this clause.
 - ! Dispute settlement: Provisions which stipulate mechanisms to settle investment disputes.
 - ! Most Favoured Nation: Discrimination of any contracting party will not be permitted. Giving favourable treatment to any contracting party is considered as a discrimination against others.
3. The third objective of some investment agreements is to further liberalize investment regimes of host countries. It seems that the majority of bilateral investment treaties (BITs) are not along this line, as they very often explicitly allow signatory countries to preserve their own policies and measures towards the admission and establishment of investments. The negotiation text of OECD’s Multilateral Agreement on Investment, which was based on the investment provisions of NAFTA, reflected very well this objective. It “aimed to set high standards of liberalization”²⁶ by including “ strong obligations and commitments on national treatment, non-discrimination/MFN, transparency, standstill , roll -back and the various procedures to implement these principles”. Elements in the investment agreements which can facilitate the achievement of this goal are the following:
 - ! Definitions: Definitions on “Investment”, “investors” and so on could broaden the scope of application if a wide definition is adopted. For instance, if portfolio

²⁶Towards Multilateral Investment Rules, P.13, OECD Document, 1996

investment is included in the definition, portfolio investors could be entitled to the same treaty protection as FDI investors.

- ! Admission: This clause stipulates under what conditions investors are allowed to enter a country. Should an investment agreement grant unconditional MFN and national treatment at pre-establishment stage to foreign investors, it would mean that foreign enterprises and foreign capital are treated like domestic ones before entering the country. It is more or less like giving unrestricted market access to foreign capital.
- ! National treatment: National treatment clause with less or no exceptions and reservations is to further liberalize investment regime.

2. The treatment of portfolio investment in investment agreements

The treatment of portfolio investment in existing investment agreements varies from no coverage to full coverage. There are also suggestions for broad definition of investment which would cover FPI, but with a narrow scope of applications in the operative part. The opposite views on including or excluding FPI in investment agreements are reported below.

Coverage extends to portfolio investment

Typically, BITs cover FPI, though in many cases it is not explicitly mentioned, but coverage is implied by the definition of investment as “every kind of asset”. The reasons given for coverage are:

- To provide full protection to investors (second objective). As direct investors also have assets in the form of portfolio investment, full coverage would protect them against losses that could arise in case of expropriation.
- To avoid the difficulty of distinguishing FPI and FDI, as in many instances the distinction is not so clear-cut.
- To promote and attract investment flows through further liberalization of investment regimes (third objective). FPI has become an important source of external finance and FPI and FDI are complementary: promoting FPI would help to attract FDI.

Excluding portfolio investment from the definition of investment

The reasons advanced for excluding FPI are the following:

- To allow host country governments to adopt a flexible approach towards the liberalization of capital accounts and apply measures to control the volatility of FPI;
- To protect weak domestic financial markets from destabilizing inflows and outflows of FPI.

3. Interrelationship between definition and substantive clauses of the agreement

Even though a broad definition of investment would include all types of investment, some specific clauses of the agreement could narrow down the scope of application of the definition, while others could enlarge the scope. Most BITs have a broad definition for investment which means portfolio investment is included. Yet, specific elements of the operative part narrow down

their scope of applications. (1) Bilateral agreements often stipulate that investment protection would be provided in line with the national laws, regulations and policies. (2) Most BITs cover only post entrance investments. (3) Many have no dispute settlement clauses, which make them less binding as people may wish them to be. In addition, the scopes of implementation between bilateral and multilateral agreements also differ. Bilateral agreements are more tailor-made to the signatory countries and has the flexibility of not providing the same treatment to other countries, while multilateral agreements, with MFN clause, broadens the scope significantly.

How would different clauses in investment agreements be applied in the case of FPI? The following are a few examples.

National treatment

Under this clause, foreign portfolio investors are supposed to be treated no less favorably than domestic investors. Host country governments cannot be selective in the types of investments they want and in the conditions for their entry and operations.

Existing investment agreements always have some qualifications, exceptions and derogations under national treatment provision. For instance, national treatment is often qualified by Balance-of-Payments (BOP) clause, which means under proven BOP difficulties, host country can temporarily be exempted from the obligations under national treatment. Another exception to national treatment is public order and national security.

Many developing countries still have rules and regulations to screen the entry of foreign investment and to protect domestic financial institutions from outside competition, especially in the area of portfolio investment. Following are some policies and measures countries are using for the purpose of preserving some sovereign right in the admission and treatment of foreign portfolio investment, which, to various extent, are not in line with the principle of national treatment:

- ! Quantity limitations of foreign holdings of a company . Some countries have quantitative limitations on equity participation by foreign investors. These could be on individual investors or on aggregated percentage of foreign holdings. There are also ceilings on stocks with voting rights;
- ! Taxation on foreign investors: withholding tax on income from dividends and short term capital gains tax;
- ! Segregation of markets: different categories of equities for domestic and foreign investors;
- ! Restrictions on the ownership of certain sectors of the economy (tele-communications, transportation, financial services);
- ! Special approval procedures for foreigners for the purpose of investor screening.

- ! Minimum stay period or other restrictions on short-term stock, bond and currency transactions ;
- ! Minimum capital requirements.

Free transfer of funds

Freedom in transferring funds is crucial for foreign investors, especially for portfolio investors. Because of the nature of portfolio investment flows, the transfer of funds could be sudden and large. There are exceptions to this obligation in existing investment agreements, for instance a temporary delay of transfer could be allowed in case of BOP difficulties , and the need to maintain public order .

B. MEASURES TO CONTROL VOLATILITY

Given the detrimental effect that volatility of capital flows can have on domestic economies, and also given the high speed of contagion of financial crisis, international attention has focused on the design of measures to control such volatility. At the international level, much effort has been and is being provided to establish internationally-agreed codes and standards to regulate financial markets. At the national level, it is now more widely accepted that countries should adopt a more appropriate pace and sequencing of capital account liberalization and could take measures to curb excessive capital inflows. Capital control measures can be divided into three broad categories: market-based or price-based measures, quantity-based and regulatory measures.

Market-based measures

Market-based measures rely on the price mechanism and aim at reducing the difference between returns on domestic and foreign assets. This would induce foreign investors to reallocate their portfolios away from domestic assets. These measures do not discriminate against foreign investors beyond the burden of additional cost, and keep the access to domestic financial markets free.

Explicit or implicit taxes on external financial transactions and foreign investment income are market-based measures. Taxes can be imposed to equalize the interest differential between domestic and foreign assets and to discourage short-term capital transactions. Taxes can be structured to depend on the maturity of the investment. Taxes are impersonal, transparent and predictable. The following are some examples of price-based measures.

(a) Reserve requirements

Chile imposed a 30% reserve requirement on external credits, investment and non-bank deposits brought in for a period of one year or less. As far as portfolio investment is concerned, the 30% reserve requirement was applied to investments in secondary markets, while investments in primary issues were exempt from reserve requirements. Chile applied these measures flexibly, as they have been completely lifted since September 1998 for reason of scarcity of capital inflows.

Some studies have indicated the effectiveness of these measures in reducing capital inflows and changing the composition of capital inflows and extending their maturity. However, it was also pointed out that these measures have a temporary effect, as circumvention is feasible through the use of derivatives or other instruments not covered by the regulations.

(b) Differentiated capital gains tax

A sliding-scale capital gain tax can be a measure to discourage short-term capital inflows, as the tax rate can be higher for short term investment. In the United States, for example, capital gains are embedded in national income tax legislation: capital gain is long term, if investment is held for more than one year and short term if investment is held for less than one year. Different tax rates are applied, with higher rate for short term capital gain.

In other industrialized countries, capital gains are often rarely taxed at the personal level. The reason could derive from the administrative difficulty to apply these measures. The evaluation of capital gains requires comparing asset values at two different points in time. Furthermore, international cooperation would be required to harmonize rules in order to avoid double taxation.

(c) Exit taxes

Some countries, like Malaysia, apply a scale of taxation of capital repatriation which varies according to the duration of stay of investment in the host countries. This can help in lengthening the period of holding the investment, thus discouraging short term flows. No study has yet been undertaken in assessing the impact of such measures.

Quantity-based measures

These measures usually take the form of limits on the amount of foreign funds that can be invested in local markets. The difficulty with quantitative restrictions is that they are subject to administrative discretion and thus investors cannot build their costs into their portfolio calculation. Their scope and application will be uncertain, introducing an additional element of investor risk.

Regulatory measures

They involve measures which are discriminatory against foreign investment (for example, distinction between different types of assets that foreigners can purchase), which impose a minimum stay of foreign investment, which control certain types of transactions (for example derivatives or short selling). The effect of these measures needs to be further assessed, but in the long run they could bring distortions in the functioning of the markets.

C. ACCESS TO CAPITAL MARKETS

As stressed above, there is a high concentration of investment flows in a small number of middle-income countries. While the determinants of foreign investment depend primarily on host country economic fundamentals, it would be interesting for emerging markets to know whether there are measures which could enhance their access to stable sources of foreign

investment. For FDI, the subject has been well researched and efforts are being provided at the practical level through activities of investment promotion agencies. For stable sources of FPI, such as long- and medium-term bonds (internationally and domestically issued), primary equity issues, depository receipts, venture capital funds and country funds (closed-end), the risk element is primordial. As investors attach importance to the liquidity of their investments, taking a long term investment position would require on their part a careful assessment of the risk involved. In the bond market, credit rating agencies play a determining role in assessing the risk of borrowers. In some instances official entities, at the national or international level, can help in reducing risks by providing guarantees or other mechanisms to enhance the creditworthiness of issuers/borrowers.

1. The Role of Credit Ratings

Sovereign credit ratings play a very important role in the international financial markets for several reasons. First, they generally constrain the rating accorded to private issuers under the domicile of that sovereign state (sovereign ceiling). Second, many investors, particularly institutional investors, prefer or even require that debt issuers obtain a credit rating from one of the major international rating agencies before they consider investing. Indeed, institutional investors are in some cases barred from placing investments in securities rated below a certain minimum credit standing. For example, the US Department of Labor allows US pension funds to invest only in commercial paper rated in one of the three highest rating categories (namely AAA, AA and A under the Standard & Poor's (S&P) rating system). Such regulations, where they exist, generally bar US institutional investors from investing in *speculative* grade (as opposed to *investment* grade) securities. Third, they play a critical role in that the interest rate spread on a bond rises progressively as the credit rating on bond issues decline due to the higher degree of (perceived) default risk.

The role of credit ratings has taken on special importance recently, in the aftermath of the Asian crisis. As a result of ongoing discussions within the Basle Committee on Banking Regulation on reform of the original 1988 agreement on capital adequacy rules for commercial banks, the Committee issued in June 1999 a consultative paper setting out proposals for a new capital adequacy framework in order to better match commercial banks' capital requirements with the level of risks of their loans²⁷. With regard to credit risk the Committee proposes that the capital requirement banks must have against claims (loans and other financial assets) on sovereigns and corporates could be determined according to the counterparty's credit rating. It is proposed that ratings from eligible credit rating agencies and other bodies undertaking similar risk assessments, such as G-10 countries' export insurance agencies, would qualify for use in this respect. The inclusion of these "other bodies" is designed to avoid sole reliance upon assessments from credit rating agencies, which the paper acknowledges, "have only a limited and mixed track

²⁷A new *Capital Adequacy framework*, Consultative Paper, Basel Committee on Banking Supervision, Bank for International Settlements, June 1999. The Committee plans to issue more definitive proposals some time in the year 2000.

record with regard to rating less than ultra-prime borrowers” in reference to sovereigns in particular²⁸.

²⁸The proposals would allow sophisticated banks to utilize their own internal credit risk rating as a basis for establishing their capital requirements rather than external credit ratings.

Credit rating during the Asian financial crisis

There was widespread criticism leveled at the major rating agencies because their downgrade of the credit rating assigned to Thailand, the Republic of Korea and Indonesia to below investment grade led to an additional withdrawal of external financing and accentuated the liquidity crises that was emerging in these countries²⁹. The destabilizing effect that credit ratings added to the emerging crisis raised the visibility of the role of these agencies. Once these countries were rated as below investment grade, at least some institutional investors in the United States were obligated to unwind their investment positions in these countries.

Criticism was also raised about the fact that the ratings agencies failed to provide adequate warning of credit deterioration before the crisis³⁰. S&P has warned that it views credit ratings as only one input into the investment decision making process, implying that some investors might be relying too heavily upon ratings in forming investment decisions.³¹ The Institute of International Finance has likewise drawn attention to the risk of investors placing “undue reliance” on credit ratings without undertaking sufficient research of their own, noting the potential for such reliance to encourage herd-like behavior on the part of investors.³²

Further analysis of the issues surrounding the role of credit ratings may be in order considering the practical significance of these ratings for the access of countries to the international capital markets. It might be useful if these agencies made public additional information regarding their sovereign rating methodologies, including details on any ratio analysis that might be undertaken to gauge, for example, the vulnerability of the country in terms of the balance of payments, external debt and external liquidity.

²⁹ APEC (the Asia-Pacific Economic Cooperation Forum) even called for a review of the credit rating agencies in the communiqué following their November 1998 meeting in Malaysia. “Apec assails credit rating agencies”, *Financial Times*, 19 November 1998.

³⁰ Moody's issued a formal response on 28 January, 1998 to the effect that Moody's had indeed behaved prudently and had indicated publicly a deterioration in credit conditions in both Thailand and the Republic of Korea prior to the outbreak of the crisis in Thailand in July 1997. “We Warned Investors”, *Washington Post*, 28 January 1998. Letter by Vincent Truglia, Managing Director, Banking and Sovereign Group, Moody's Investor Service.

³¹ “Implications from the Asian Crisis on Sovereign and Bank Ratings”, presentation by Leo O'Neill, President and Chief Rating Officer, Standard and Poor's Ratings Services to the Asian Development Bank Roundtable Meeting, Geneva, Switzerland, 1 May 1998.

³² See Press Release on Net Private Capital Flows to Emerging Markets by Georges Blum, Chairman of the IIF, 29 January 1998 and letter from Charles Dallara, Managing Director of the IIF, to Phillippe Maystadt, Chairman of the IMF Interim Committee, 11 September 1997. This letter also hints that ratings changes can indeed lag developments that might give reason for a reassessment of a credit rating.

2. Measures Taken to Maintain Access to the International Bond Market

(a) Bond Enhancements

As a result of the recent financial crises, emerging markets were forced to offer enhancements designed to reduce the risk borne by the investor. Thus, it was reported³³ that in June 1997 the Korea Development Bank (KDB) issued a \$300 million structured credit-ratings-based floating rate note which included a put option that could be exercised on specific dates in the event that KDB's credit rating fell below specified threshold levels. An August 1997 Industrial Finance Corporation of Thailand \$500 million issue also included a credit-rating linked enhancement allowing higher returns for initial credit downgrades and redemption at par value should further downgrades take place. Several issues were also made that included currency linked enhancements. In this case, the investor was partially shielded from currency risk (they were local currency issues) but allowed to participate in gains from currency appreciation. Such issues were reported for the Central Bank of the Philippines in August 1997 and a Korean corporate in March 1998. A third type of enhancement was offered by Argentina on note programs known as SPANS (spread adjustable notes) and FRANS (floating rate accrual notes). SPANS allow investors to reset the rate spread on the note through a bidding process at specified reset dates. FRANS provide for automatic adjustment of the coupon rate every six months and an automatic premium if the interest rate spread on specified outstanding bonds rises above a specified threshold.³⁴ In some cases at least, enhancements on syndicated bank loans were also issued, such as a credit-rating related enhancement on Mexico's November 1997 \$2.5 billion revolving credit.³⁵

The inclusion of enhancements is a natural result of the desire of emerging markets to retain access to international bond markets as a result of heavy external financing needs. Such innovations are an ongoing feature of international and domestic bond markets. However, the dislocation following the Russian default created an even greater squeeze on emerging market access to the international bond markets that has led to measures that go beyond the provision of enhancements. Furthermore the danger in a widespread use of such enhancements is that it can exacerbate a liquidity crisis, as it will induce automatically either a withdrawal of funds or a significant increase in the cost of finance should difficulties occur.

(b) Official Bilateral and Multilateral Support Measures

Miyazawa Initiative

In the wake of the Russian default, emerging markets, particularly those in Asia, have benefited from the provision of guarantees from the Japanese government as well as several supranational organizations, including the World Bank and the Asian Development Bank (ADB). On 3 October 1998 the Japanese Minister of Finance, Kiichi Miyazawa unveiled what has

³³See IMF: *International Capital Markets*, September 1998.

³⁴ See "Enhancements and Innovations in Bond Structures in response to the Asian Crisis", Box 2.6, in IMF (ICM), September 1998, p. 29 for more details on these enhancements.

³⁵ IMF (ICM) September 1998, p. 30.

become known as the *Miyazawa Initiative* (MI).³⁶ The Initiative represents a \$30 billion program of financial assistance for the Asian countries affected by financial crisis, including \$15 billion for mid- to long-term financial assistance and \$15 billion as a reserve against short-term capital needs, including trade finance, to be provided in the form of swap arrangements. The mid- to long-term financial assistance includes Export-Import Bank of Japan (JEXIM) loans, credits and guarantees and the creation of an Asian crisis support facility to provide interest subsidies and thereby allow Asian borrowers to raise funds at lower cost than otherwise possible. With regard to access to international capital markets, the JEXIM will provide the following: acquisition of sovereign bonds issued by Asian countries; loans to Asian countries; guarantees on bank loans to Asian countries and on sovereign bond issues by Asian countries; and, export insurance on loans to Asian countries. The Initiative also indicates the “hope” of serious consideration in the long-term of the establishment of an international guarantee institution that would focus primarily on Asian countries.

Asian Growth and Restructuring Program

In addition to the Miyazawa Initiative, Japan and the United States announced the joint \$10 billion Asian Growth and Restructuring Program (AGRP) on 16 November 1998 to aid Asian countries recovering from financial crisis. Reportedly, the United States will provide \$3 billion in additional export credit and \$2 billion in insurance and guarantees to promote private sector investment, and Japan will provide \$5 billion in financing in cooperation with the World Bank and the ADB.³⁷

With respect to promotion of the return of private sector financing to these countries, the Program includes the following: assistance from the Multilateral Investment Guarantee Agency (MIGA) and the Japanese Export and Investment Insurance (EID) through the Ministry of International Trade and Industry (MITI); provision of up to \$2 billion in political risk insurance and project finance for commercially viable projects that spur development of the region by the United States Overseas Private Investment Corporation (OPIC); activation of a newly-developed “bond insurance product” by OPIC to mobilize private financing; mobilization of private finance by OPIC through its investment fund programs, including the \$150 million Asia Development Fund which will make equity and debt investments in companies in the region; exploration of establishment of a new \$100 million fund by OPIC which would be targeted at mobilizing private equity investment in Asian medium-sized companies; provision of financial (as well as strategic and technical) support by the IFC; and, IFC assistance in establishing privately financed and managed investment funds which is targeted to mobilize at least \$500 million in additional financing.

Recent bond issues with guarantees

To date there have been several bond issues by countries benefiting from support from the Miyazawa Initiative and/or the AGRP, including support from the World Bank and the ADB. On 10 December 1998 Malaysia issued a sovereign bond equivalent to \$570 million (Y66.6 billion) in the international bond markets with support under the Miyazawa Initiative. The bond

³⁶ This section is based upon the statement of Minister Miyazawa to the meeting on 6 October 1998 as well as various notices from the Ministries of Finance and Foreign Affairs of the government of Japan.

³⁷ “US, Japan to launch \$10 billion Asia crisis fund”, *Financial Times*, 17 November 1998.

was covered by guarantees from both the Malaysian government and Japan's MITI that cover 90 per cent of the bond's interest and principal payments. These guarantees would allow a AAA Moody's rating that would substantially reduce the interest rate spread on the issue. The proceeds from the bond will reportedly be converted into a loan that will be used by Malaysia to recapitalize its banking sector. The *Financial Times* reported in late 1998 that several other issues with similar guarantee arrangements were planned.³⁸

Such guarantees are issued in order to allow a higher credit rating and thereby lower the cost of issuing debt for the countries benefiting from the guarantee due to the higher credit rating of the guarantor. In the case of the World Bank and the ADB, however, the use of guarantees is seen as being of use on a limited basis given the cost to the supranational of issuing such guarantees and the large financing needs of the countries that have encountered difficulty in accessing the international bond markets at reasonable cost since the Russian default.

CONCLUSIONS

This report has reviewed a number of issues pertaining to recent trends in investment flows to emerging markets. The frequent occurrence of financial crisis has raised a host of questions about the costs and benefits of capital flows and about the merits of adopting a selective approach towards external financial flows, which should be more discriminatory against short term flows. The lessons learnt from consecutive crises (Mexican, Asian and Russian crises) have allowed to grasp the mechanics of the volatility of capital flows. There is, however, a degree of uncertainty with regard to the appropriate policies to implement at the international and national level.

At the national level, this uncertainty stems from the fact that countries are often facing a dilemma between the need to attract capital flows, which have become of a shorter term as a result of the transformation of international financial markets, and the need to protect their economies from destabilizing effects of short-term flows. Added to that there is also an uncertainty about the effectiveness of different measures taken to control capital, when international regulations remain unclear on reining in the speculative behaviour of international investors. Furthermore, much remains to be learnt about the impact and the developmental contribution that different types of investment can make to the host economies.

In addressing these issues, this report has attempted to provide detailed information and to clarify the analysis on investment flows. It is felt, however, that more research is needed to empirically assess the developmental impact of FDI and FPI. This is a complex issue which perhaps depends much on the particular circumstances of each recipient country. More research is also needed on the policy implications raised in this report, namely:

- the differentiated treatment of FDI and FPI in investment policy regimes;
- the design of market-based measures to control the volatility of capital flows and their efficacy;

³⁸ See "Tokyo backs Malaysian bond issue", *Financial Times*, 11 December 1998 and "Emerging market borrowers may have to bank on supranationals", *Financial Times*, 19 October 1998.

- the measures at the international level to enhance the access of developing countries to stable sources of foreign investment.