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PORTFOLIO EQUITY INVESTMENT AND NEW FINANCING MECHANISMS

Foreign portfolio equity investment in developing countries: current issues and prospects.

Report by the UNCTAD secretariat

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CONTENTS

SUMMARY AND CONCLUSIONS

1. Over the past four years, foreign portfolio equity investment (FPEI) in developing countries has expanded rapidly. This increase has taken place against the background of structural changes in international capital markets, which shifted emphasis from banking intermediation to financial securitization and which were increasingly influenced by the important role played by institutional investors.

2. FPEI has also been encouraged by structural reforms in developing countries, which have increasingly moved towards more market-oriented economic systems. The surge in FPEI has also been underpinned by a steady recovery- and growth-record of recipient developing countries, which has allowed high returns on emerging markets (EMs).

3. However, the number of beneficiary countries is still small, as only some 15 developing countries/economies are now able to attract such flows on a significant scale. These are typically middle-income countries with a meaningful domestic industrial base. The conditions for attracting an increasing volume of FPEI to a larger number of recipient countries are mainly linked to domestic efforts to implement policies conducive to growth and to strengthening the operational framework of local stock markets. In addition, developed countries can also help to increase such flows by relaxing their regulations on the investment policies of their institutional investors in EMs.

4. The main advantage of FPEI flows is that the service on capital imported is linked to returns of the investment made, thus helping to match service payments to ability to pay and serving as an effective instrument to share risks between investors and borrowers. As foreign investors are attracted above all by high returns, such flows are closely linked to the performance and competitiveness of private companies, which much depend on a stable and enabling business environment.

5. Beyond the benefits of FPEI as a mechanism to channel foreign savings to developing countries, the question arises as to the role of stock markets in their financial systems. A growing number of developing countries have recognized the useful role that stock markets can play in enhancing the efficiency of domestic financial systems, and have established and developed stock markets. Stock markets can usefully complement the banking sector by providing risk finance and ensuring a healthy corporate financial structure. On the other hand, stock markets can entail costs, as their price mechanism can at times be destabilizing for the economy, especially if markets are thin and highly concentrated and if the regulatory framework is weak. There is some evidence on the positive contribution of stock markets in the mobilization of resources in developing countries. Further research, however, is needed to analyze in greater depth the contribution of stock markets to an efficient allocation of resources.

6. Despite the striking progress made by major EMs whose performance is now comparable to that of developed markets (DMs), the state of many EMs is still characterized by high volatility, high market concentration, lack of liquidity, inadequate market regulation or weak capacity to enforce rules. These factors can to a large extent discourage foreign investors. Widespread reforms are needed to improve the functioning of EMs. This will necessitate an important involvement of Governments to ensure an adequate institutional, legal, and regulatory framework for a proper functioning of local stock markets.

7. FPEI flows, however, can also have an adverse impact on the domestic economy, if they are based primarily on short-term speculative motives. Experience has shown, though, that fears in this respect have been largely unfounded: global investors have tended to "invest" in EMs, and foreign equity flows have not shown large fluctuations. Nevertheless, FPEI flows have generally increased the volatility of EMs, due perhaps to a faster transmission of

information. This possible effect on markets which are known to be already volatile might justify a gradual opening of EMs to foreign investors.

8. On the investors' side, the enormous potential represented by the pool of savings held by institutional investors in OECD countries may increasingly seek investment outlets other than those offered by mature markets. As investment managers become more familiar with EMs, a relaxation of home country policies concerning investment portfolios of institutional investors could allow a multiple increase in FPEI.

9. Overall, prospects for increasing FPEI further in developing countries seem to be promising, given the large potential of institutional savings and progress made by EMs. Indeed, the continuing progress made in raising standards in many EMs and in enhancing the competitiveness of domestic companies through improvements in economic management are likely to make these markets even more attractive, as volatility may consequently be reduced and high growth prospects are expected to induce high returns.

INTRODUCTION

10. The recent surge in foreign portfolio investment, particularly equity investment, in developing countries is a welcome sign of the improvement in their creditworthiness, but, at the same time, it raises a number of policy issues. What is the potential of foreign portfolio equity investment (FPEI) as a sustainable source of external finance for developing countries? What are the policy implications, at the micro- and macro-level, for the recipient countries? What is the role of stock markets in the financial system of developing countries, and will developing countries derive benefits from an active development of stock markets in order to attract FPEI? Given the limited number of countries which have so far attracted FPEI, what policies and measures should be adopted to channel FPEI into a larger number of countries?

11. The present report addresses these issues, in an attempt to draw some policy implications for developing countries in dealing with FPEI. The report first examines the trends in FPEI and factors behind these trends. It then analyzes the motivations of foreign investors, as well as factors deterring foreign investment, in order to gauge the potential of FPEI as a sustainable source of external finance. Finally, the report considers policy implications for host countries.

I. TRENDS IN FOREIGN PORTFOLIO EQUITY INVESTMENT

A. *Factors behind recent trends*

12. Over the past four years, FPEI flows to developing countries have increased sharply. FPEI (in gross terms) rose from $3.5 billion in 1989 to $8.2 billion in 1992 (table 1).[1] Developing countries' share in global equity issues in international capital markets increased from 11.6 per cent in 1990 to 30.7 per cent in 1991 and to 46.0 per cent in the first half of 1992.[2] In addition to these equity flows, developing countries also issued other equity-related

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[1] World Bank, *World Debt Tables, 1992-93*, Volume 1. Other sources give much higher figures. Baring Securities, for example, estimated that *net* equity capital flows to emerging markets (EMs) of developing countries increased from $0.94 billion in 1986 to $8.63 billion in 1989, and to $17.12 billion in 1992 (table 1).

[2] IMF: *Private Market Financing for Developing Countries*, Washington, D.C. 1992.

securities such as convertible bonds and bonds with equity warrants.[3] Whereas in 1986 and 1987 South-East Asia attracted more than three quarters of FPEI, Latin America has recently accounted for the major part of these flows (table 1).

13. The surge in FPEI in EMs[4] took place against the background of structural changes in international capital markets and in recipient countries' economies. These factors are expected to have a long-term effect on capital flows and lead market observers to believe that the new trend in FPEI will continue in the coming years.

14. Structural changes in the international capital markets have shifted emphasis from bank intermediation to financial securitization.[5] Many factors have contributed to the revival of securities. Advances in information and communications technology, deregulation of financial markets (notably, removal of official constraints on the development of securities markets in major OECD countries), and increasing internationalization of financial transactions (through the liberalization of cross-border operations) have led to the promotion of financial securitization. The use of marketable instruments (including equity and equity-related instruments) which allow a better management of risk has grown rapidly at the expense of bank deposits and loans.

15. The institutionalization of savings is another important feature of international finance. The increasing importance of institutional investors (insurance companies, pension funds, collective investment trusts),[6] reinforced by demographic and institutional factors in OECD countries, has tended to alter the nature of financial markets. Unlike the individual investor who may have either a very conservative or highly speculative stance, institutional investors are usually bound to adopt a more professional approach to risk management. They will seek to diversify portfolios, find investments that offer the possibility of yield enhancement and, at the same time, of matching future returns with their own forthcoming obligations. Institutional investors generally assign greater weight to the equity components of their portfolios, as they realize that returns on equity tend to exceed those on debt instruments in the long term and that modern financial techniques allow them to improve the management of risks.

16. In developing countries, important structural changes have also taken place which have encouraged FPEI inflows. The vast majority of developing countries have embarked on a widespread process of reform, moving towards more market-oriented economic systems. In particular, privatization and liberalization of domestic financial systems in many countries have encouraged the development of domestic stock markets. Many countries have also gradually opened their financial markets to foreign investors by relaxing restrictions on international

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[3] Data on convertible bonds issued by developing countries are scarce. One source of information on convertible bonds issued by East Asian companies indicated a total amount of about $1 billion over the period 1986-1991. See. K.K.H. Park and A.W. Van Agtmael, editors: *The World's Emerging Stock Markets* (Probus Publishing Company, Chicago, Illinois, 1993), p.35.

[4] Emerging stock markets are here defined as stock markets established in developing countries/economies and countries of Eastern Europe.

[5] For an analysis of the securitization of OECD financial markets, see OECD: *Financial Market Trends,* No. 55, June 1992, "Special Features, World Securities Markets: Looking Ahead":, pp 13-42. See also, Bank for International Settlement (BIS): *62nd Annual Report, 1991/92,* Chapter VIII: Structural aspects of financial markets and prudential supervision.

[6] In 1990, the financial assets held by institutional investors, expressed as a percentage of household financial assets, for the major OECD countries, varied from 26.4 per cent (Japan) to 58.6 per cent (United Kingdom). See BIS: *62nd Annual Report,* op.cit., p. 194.

capital transactions and allowing entry of foreign banks and financial intermediaries. Of the 47 developing countries and countries in transition which have established stock markets, 24 accord free entry to foreign investors, 11 allow relatively free entry and 11 apply restrictions on foreign entry (table 2).[7]

17. The recent increase in FPEI to a few developing countries has also been underpinned by a steady recovery and growth record of emerging market countries. Fifteen countries/economies are major recipients of FPEI: five in Latin America (Argentina, Brazil, Chile, Mexico, Venezuela); nine in Asia (Hong Kong, India, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Taiwan Province of China, Thailand); and Turkey.[8]

18. In Asia, the fast growing economies of East Asia (Hong Kong, Indonesia, Malaysia, Republic of Korea, Singapore, Taiwan Province of China, and Thailand) have experienced the highest growth record, well above world average and OECD countries' growth. Through adequate government support for domestic industries and a judicious export-oriented policy, these countries have become internationally competitive. At the same time, local stock market booms have encouraged new issue activity, and the cost of capital has been further reduced through access to international bond and equity markets. The economic transformation of China and the new orientation of economic policies in India have also improved their competitiveness; local enterprises have also begun to increase their volume of securities issues on international capital markets.

19. The recent turnaround in economic policies in many Latin American countries has led to a remarkable recovery. Privatization and restoration of financial stability have revitalized stock markets, and a few major Latin American countries have become the largest issuers on international equity markets.

B. *Evolution of emerging stock markets*

20. Today about 50 developing countries and East European countries have established stock exchanges. While the East European markets have been created only in the past 2-3 years, in a few developing countries stock exchanges sometimes date back to the nineteenth century or the first half of the twentieth century. Such long-established stock markets are located in seven Latin American countries (Argentina, Brazil, Chile, Colombia, Mexico, Uruguay and Venezuela), and in five African and Asian countries (India, Pakistan, Philippines, Egypt and Morocco).

21. In the nineteenth and early twentieth centuries, activities were irregular, with, for instance, booms in trading during the 1920s before the worldwide recession of the 1930s. During the 1950s and most of the 1960s, many stock markets were dormant. The waves of nationalization halted the growth of

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[7] The 24 countries/economies with free entry are: Argentina, Bulgaria, Chile, Colombia, Costa Rica, Côte d'Ivoire, Ecuador, Egypt, El Salvador, Honduras, Hong Kong, Jamaica, Jordan, Kenya, Malaysia, Morocco, Panama, Pakistan, Poland, Russian Federation, Slovenia, Singapore, Turkey, and Venezuela. The 11 countries with relatively free entry (limits on foreign ownership): Botswana, Brazil, Indonesia, Peru, Philippines, Republic of Korea, Sri Lanka, Thailand, Trinidad and Tobago, and Uruguay. The 11 countries/economies with restrictions (either closed markets or foreign investment restricted to only certain classes of shares) are: Barbados, China, Ghana, Hungary, India, Kuwait, Mauritius, Nepal, Nigeria, Taiwan Province of China, Zimbabwe.

[8] These countries are the major countries having access to international equity markets through American Depository Receipts, Global Depository Receipts or country, regional or global funds. See Sudashan Gooptu: *Portfolio Investment Flows to Emerging Markets*, paper presented to the World Bank Symposium on Portfolio Investment in Developing Countries, 9-10 September 1993.

exchanges in several countries. It is only in the late 1960s and the 1970s that EMs were given a new impetus, as a result of strong economic growth and better economic prospects, as well as the development of a middle class. During that period, Governments' interest in developing capital markets also increased, and in a number of countries stock exchanges were reorganized.

22. During the period 1976-1980, market capitalization (i.e. total market value of equities traded) as well as trading activity increased substantially in both Latin America and Asia (table 3). While in a number of Asian countries, stock market growth reflected a substantial increase in the number of listings, in most Latin American markets growth was due to capital increases and growing market values of already listed companies.

23. This period of strong growth was followed by one of mixed performance in the first half of the 1980s due to a slowdown in the world economy and stagnation and recession in a number of developing countries which were facing external debt problems (table 3). Investors' confidence waned and stock prices fell, particularly in Latin America. The situation was less severe in Asia, though Asian markets' growth was clearly below the performance registered during the 1970s.

24. Subsequently, however, EMs have expanded dramatically, particularly since 1985. Over the past 10 years, total market capitalization of EMs has increased eleven times rising to about $960 million in December 1992, and the share of EMs in world market capitalization almost tripled, amounting to 8.7 per cent in 1992. Liquidity improved even more, as the trading volume increased by 25 times over the same period. Today the size of the larger EMs is comparable to many European markets. This is the case for Brazil, India, Malaysia, Mexico, Republic of Korea, Taiwan Province of China, Thailand, Hong Kong and Singapore, while in 1982 only three EMs had a meaningful size. In 1992, eight of the 20 largest markets in the world were EMs.[9]

25. At the same time, the deepening of EMs, expressed as a ratio of market capitalization to GDP, has become more important. In 1992, this ratio in EMs was equivalent to 32 per cent, on average. Although, this is still below the average of 46 per cent in mature developed markets (DMs), growth has been very rapid. For a number of developing economies such as Chile, Malaysia, Mexico, Philippines, Republic of Korea, Taiwan Province of China, and Thailand this ratio rose substantially in just 10 years, increasing in a number of cases from less than 5 per cent to 30-40 per cent. This is an impressive performance when compared with the growth registered by most developed countries in the nineteenth and early twentieth centuries.[10]

26. The number of listed companies also increased significantly, almost doubling between 1983 and 1992. While in the mid-1980s domestic companies listed in EMs were less than a third of the total listing worldwide, today they represent about 40 per cent. Some countries, such as India, Republic of Korea, Brazil and Pakistan have a very large number of listed firms, although many of them are quite small (table 4).

27. Market concentration is higher in EMs than in DMs. In most EMs the share of market capitalization held by the 10 largest stocks at end-1992 exceeded 30 per cent (table 4). Market concentration is particularly high in Latin America, with shares of 50 per cent and more in Argentina, Chile, Colombia and Venezuela.

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[9] See International Finance Corporation: *Emerging Stock Markets Factbook*, various issues (Washington D.C.).

[10] See J. Mullin "Emerging Equity Markets in the Global Economy", *Federal Reserve Bank of New York Quarterly Review*, Summer 1993.

In DMs, with the exception of Germany and Switzerland,[11] this share is below 30 per cent.

28. While the trading volume has increased dramatically in many EMs since the mid-1980s, many of them still remain thin. Although the most active stocks in several of these markets are as liquid as, for instance, the issues of an average-sized firm listed on the New York Stock Exchange, trading tends to be concentrated in a small number of stocks. This is particularly the case in Latin America, where in most markets the share of traded value accounted for by the 10 most active stocks was between 50 and 80 per cent in 1992.[12] This feature is much less pronounced in Asia, where several countries exhibited a share of below 22 per cent.

29. Many of the EMs have registered outstanding returns in the past 15 years. For instance, between 1976 and 1992, the IFC total return indexes (in US$) for Argentina, Chile, Mexico, Republic of Korea, and Thailand grew at annual rates of between 22 and 35 per cent. In comparison, for the United States and Europe, total return indexes increased at an annual rate of about 15 per cent.[13] In the past two years, EMs' return performances have been less outstanding, although the performance of some EMs remains remarkable when compared with that of most developed markets.

30. While returns in EMs have been extraordinarily high, especially since 1986, volatility (as measured by standard deviations of return indexes) has also been high. As reported by the IFC, standard deviations of global total return indexes (in US$) over the five-year period ending 1992 were the highest in EMs. During that period, the IFC composite index for EMs exhibited a standard deviation of 6.7 per cent, while for Latin America and for Asia it reached 9.2 and 8 per cent respectively. These values are high, when compared with those of 3.9 per cent for the United States return index and 5.8 per cent for the EAFE (Europe, Australia, Far East) index. Furthermore, these averages conceal a wide variation among countries. Some very volatile EMs had standard deviations exceeding 15 per cent (Argentina: 34.2 per cent; Brazil: 23 per cent; Taiwan, Province of China: 15.1 per cent; Turkey: 19.5 per cent).

C. *Types of FPEI*

31. Foreign investment in EMs can be channelled through three main mechanisms: direct purchases on local stock markets; country or regional funds; and issues of depository receipts on foreign stock exchanges by EM companies.[14]

32. The extent of direct purchases in local markets will depend on market developments that facilitate and encourage such trading. In recent years, the opening of the local brokerage and investment banking business to foreigners has facilitated such purchases. On the other hand, the possibility of an adverse impact on EMs (through fund outflows or stock price volatility) is greater under this form of FPEI.

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[11] In Germany and Switzerland, the share of market capitalization held by the 10 largest stocks was respectively 40 and 53 per cent at end-1992.

[12] In Mexico for example, of the 252 companies listed in the stock exchange (as of February 1993), 21 are highly traded, 46 are moderately traded and the remaining have a low trade. See *Case study submitted by Mexico*, TD/B/WG.1/Misc.3/Add.1, Part II.

[13] See Mullin, op.cit.

[14] For a detailed review of these mechanisms, see V. Errunza: "Capital markets, foreign portfolio investment, and economic development", background paper UNCTAD/GID/DF/4 prepared for the third session of UNCTAD's Ad Hoc Working Group on Investment and Financial Flows.

33. Country or regional funds, which can be open- or closed-end,[15] provide foreign investors with the advantages related to mutual funds. They can mobilize large resources for effective portfolio diversification and offer specialized knowledge regarding firms, markets and economies. Whereas open-end funds are bought and sold from the fund managers at the same value as in originating markets, the closed-end funds are priced on the exchange where they are traded. Typically, closed-end funds have traded with a premium or a discount over their net asset values (i.e. values prevailing on originating markets). The premiums and discounts also fluctuate over time for a given fund. The investor is thus facing two sources of risk and return: the first is associated with net-asset value movements and the second is related to shifts in the discount or premium. At the end of 1992, there were about 589 open- and closed-end country funds for EMs in operation, with over $35.5 billion in net assets under management.[16]

34. In recent years, the public offerings and listing of EM equity on foreign markets through depository receipts have increased due to changes in regulatory requirements and reduced costs.[17] Since 1991, issues of depository receipts on international capital markets have dominated other forms of FPEI in EMs.

35. An American Depository Receipt (ADR) is a certificate or receipt issued by a United States bank that represents title to a specified number of shares deposited in a custodian bank by an overseas corporation in its home country.[18] The ADR is freely traded on United States stock exchanges, without the delivery of the underlying shares that it represents. Global Depository Receipts (GDRs) are similar to ADRs but are simultaneously issued in security exchanges all over the world.[19] These depository receipts represent claims on underlying assets and entitle the investors to dividend payments, as well as all cash flows and proceeds upon sale.

36. For foreign investors, ADRs and GDRs present the advantage of conformity to standards of developed stock markets. Moreover, ADRs allow United States institutional investors to purchase non-US securities, as very often they are required to invest only in US dollar denominated securities. For companies from developing countries, depository receipts facilitate access to international capital markets, while also assuring lower cost of capital and heightened visibility. This alternative also involves lower monitoring costs and smaller concern over foreign control as compared to direct purchases by foreigners on local stock markets. Depository receipts enlarge the market for EM companies, thus increasing or stabilizing securities prices through a broadened exposure and an increase in demand.

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[15] A *closed-end fund* raises an initial sum of money from the public and other institutions which is then invested in the securities of a particular market or set of markets. Shares of closed-end funds are traded on major foreign securities markets, different from originating stock markets which provide the underlying assets. An *open-end fund* buys and sells stocks in the local markets in response to net deposits or withdrawals in the funds by investors. This kind of fund can only be established in countries with fairly liquid securities markets and without exchange controls, and can operate on a small scale.

[16] International Finance Corporation: *Emerging Stock Markets Factbook 1993*.

[17] For example, in the United States, the SEC rule 144a (April 1990) has reduced the registration/disclosure requirements for private securities placements, thus facilitating ADR issues from EM companies.

[18] In May 1991, the Mexican company Telmex's ADR issue of $ 2 billion was the biggest issue by any developing country.

[19] In 1991, Samsung Electronics of the Republic of Korea was the first company from a developing country to issue a GDR.

Experiences of Brazil and Mexico

37. Information made available to the Ad Hoc Working Group on Investment and Financial Flows by Brazil and Mexico[20] indicates that recently FPEI in these two countries increased substantially.

38. In 1987, Brazil allowed investment in local stock markets by foreigners through mutual funds; in 1991, free entry was accorded to foreign institutional investors. Mutual funds include: (a) foreign capital investment companies, which should hold a minimum of 50 per cent of their portfolios in stocks; (b) foreign capital investment funds, with a minimum of 70 per cent of portfolios in stocks; (c) closed-end Brazil Fund; (d) foreign capital conversion fund, established in the framework of the debt-to-equity conversion scheme. In 1991, total net FPEI flows amounted to $571 million ($185 million from mutual funds and $386 from institutional investors). During the period from January to October 1992, they jumped to $1,527 million ($202 million from mutual funds and $1,325 million from institutional investors).

39. Mexico has allowed foreign investment in domestic equity markets through four mechanisms: (a) ADR; (b) unrestricted subscriptions of non-voting "B" shares; (c) purchases of "A" shares (which were previously restricted to Mexican investors) through a trust fund which issues certificates to foreigners; (d) Mexican country funds. By February 1993, cumulative FPEI had reached $25.3 billion, representing about 20 per cent of total market capitalization. From January 1991 to February 1993, total FPEI amounted to $12 billion, of which $9.5 billion was raised through ADRs and GDRs. During the same period, total purchases of Mexican "B" shares by foreigners amounted to $1,553 million, and purchases by foreigners of "A" shares through trust funds amounted to $817 million. Since 1981, 40 Mexican funds (including country and global funds) have been launched.

II. FOREIGN INVESTORS' CONSIDERATIONS

A. *Factors enhancing FPEI*

40. Foreign investors in EMs are attracted by high returns in these markets and by possibilities offered for portfolio diversification. Information on the composition of foreign investors is scarce; however, different categories of investors motivated by different degrees of risks and returns have been reported to be active in EMs.[21] Domestic residents of developing countries with overseas holdings (through a return of flight capital) and other private investors, as well as some foreign banks, are often thought to be primarily interested in short-term returns. Institutional investors, including mutual investment funds, pension funds and insurance companies, have a relatively long investment horizon and are interested in high potential rates of returns combined with risk diversification.

1. Returns

41. As seen earlier, returns in EMs have been outstanding. For several consecutive years, EMs ranked among the best performing markets. In 1992, according to IFC return indexes,[22] the 10 best performing markets were EMs, with the exception of Switzerland. Equity returns are positively correlated with export growth and dividend-per-share growth.[23] Fluctuations in returns are also

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[20] See *Case study submitted by Brazil*, Part II: TD/B/WG.1/Misc.3/Add.6 (24 June 1993) and *Case study submitted by Mexico*, Part II, op.cit.

[21] See Sudashan Gooptu: *Portfolio Investment Flows to Emerging Markets*.

[22] IFC, *Factbook 1993*, p. 8.

[23] See Mullin: "Emerging Equity Markets in the Global Economy".

positively correlated with fluctuations in industrial production.[24] However, the extraordinary recent increases in returns cannot be explained by measures of macroeconomic performance alone. Returns in EMs in the recent period also reflected the impact of structural changes that boosted investor demand for EMs' equities. Returns in Latin America reached a peak in 1991 and fell sharply in 1992, although Chile, Colombia and Mexico still maintained reasonably high returns. Likewise, some Asian countries (India, Malaysia, Pakistan, Philippines and Thailand) also exhibited high returns in 1991 (although smaller than in Latin America) and lower returns in 1992.[25] Returns can thus be subject to wide fluctuations, and consequently risks can also be high.

2. Portfolio diversification

42. Using asset portfolio models, market analysts have demonstrated that investors can raise expected returns while reducing risks by including in their portfolios assets which are largely uncorrelated. Portfolio diversification across countries, more than across industries, can greatly contribute to maximizing returns and reducing risks as a result of low correlations among national stock markets.[26] Opportunities are created for maximizing returns when market cycles do not coincide by moving funds from markets which have peaked to markets which are on an upward trend.

43. A number of studies using data on EMs spanning over the period 1960-1990 have shown substantial benefits for international investors from investing in developing countries.[27] The main findings are:

- Portfolio diversification in EMs have been beneficial in terms of both increased returns and reduced risks;
- The domestic systematic risk has been higher in EMs than in major DMs, but not necessarily higher than in the smaller DMs;
- The return correlations vis-à-vis DMs have been low and at times negative. Among themselves, the EMs have shown very weak correlations.

44. However, as the economies of EMs become more open, their equity markets could also become more globally integrated. Greater integration is expected to increase correlation between EMs and DMs. Trends in correlation coefficients of global return indexes between EMs and the United States market do not show conclusively that these markets have become more correlated (table 5). With the exception of a few EMs (such as Malaysia, the Philippines and Thailand) where there is some indication of such increases in correlation with DMs over time, for other EMs correlations have remained low and sometimes negative, and are much lower than correlations among DMs. This indicates, therefore, that there are still ample opportunities for enhancing risk-adjusted returns through portfolio diversification in EMs.

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[24] See E. Han Kim and Vijay Singal: "Opening of Stock Markets by Emerging Economies: Effect on Portfolio Flows and Volatility of Stock Prices", paper presented at the World Bank Symposium on Portfolio Investment in Developing Countries, 9 - 10 September, 1993.

[25] See IFC, *Factbook 1993*, p. 41.

[26] On the greater merit of country-diversification over industry-diversification, see, for example: I. Meric and C. Meric: "Potential gains from international portfolio diversification and inter-temporal stability and seasonality in international stock market relationships", *Journal of Banking and Finance*, 13, 1989.

[27] A review of these studies can be found in V.R. Errunza: "Emerging markets: some new concepts", *Journal of Portfolio Management*, forthcoming, 1994.

3. *Institutional investors*

45. With the increasing importance of institutional savings in OECD countries, institutional investors are expected to become a major source of investment in financial markets. However, institutional investors have typically invested less than 5 per cent of their foreign equity holdings in EMs (which is less than 0.2 per cent of their total asset portfolios).[28] By the end of 1991, pension funds and insurance companies had an estimated $12-15 billion invested in EMs (which was equivalent to 3 per cent of total market capitalization of EMs).

46. In a review of investment portfolios of institutional investors in those OECD countries which have invested the most abroad, Baring Securities has given some indications on the composition of these portfolios:[29]

(a) In the United States, in 1991, ERISA funds[30] invested a net $19.8 billion in foreign equities, while mutual funds, closed-end funds and individuals invested another $ 23.5 billion. At the end of 1991, total assets of ERISA funds amounted to $2,725 billion of which about 4.6 per cent was invested in foreign assets; this share is expected to reach 10 per cent by 1997. The number of mutual funds has also increased, and their total foreign assets exceeded $30 billion in March 1992. In 1992, there were 48 closed-end country funds listed in the United States, with a total asset value of $5.9 billion.

(b) In the United Kingdom, accumulation of foreign assets has been important in pension funds' portfolios; the share of foreign assets in total assets increased from 6 per cent in 1979 to 26 per cent in 1991. Their geographical distribution has been diversified, with 13 per cent of foreign assets being invested in countries other than the United States, Japan and European countries. The world's largest foreign investors are United Kingdom investors with an amount of $175 billion invested in foreign equities at the end of 1990; 75 per cent of this foreign equities investment was held by major institutional investors.[31]

(c) In the Netherlands, private and public pension funds' assets grew to around $350 billion by 1992; foreign assets were equivalent to about 13 per cent of total assets.

(d) In Japan, while investment in foreign bonds more than doubled between 1990 and 1991, net investment in foreign equities decreased from $6.3 billion (of which $1.7 billion were invested in EMs) to $3.6 billion over the same period. The share of foreign assets in the total assets of Japanese life insurers increased from 8.8 per cent in 1984 to 12.3 per cent in 1991. The share of foreign equities in total foreign assets of these insurers also increased from 7.9 per cent in 1984 to 23.7 per cent in 1991. Japanese investment trusts, however, reduced the percentage of foreign equities in their foreign assets, from 65 per cent in 1982 to 15 per cent in 1991, mainly as a result of a reduction of investment in the United States. On the other hand, these investment trusts increased their investment in countries other than the United States and Europe, from 14 per cent of total foreign assets in 1989 to 31 per cent in 1992.

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[28] See: M. Ahmed and S. Gooptu: "Portfolio investment flows to developing countries", *Finance and Development*, March 1993.

[29] Baring Securities , op.cit.

[30] Funds regulated by the Employee Retirement Income Security Act (ERISA) of 1974.

[31] As cited by S. Gooptu, op.cit.

47. This brief review indicates that the investment resources of institutional investors in OECD countries are enormous, but institutional investors are holding primarily domestic securities. There is, however, a discernible tendency to diversify across countries and, most interestingly, to invest in countries outside the developed area of North America, Japan and Europe. The share of equities in foreign assets has also tended to increase, but remains small. This might, in part, result from the existence of barriers to FPEI, an issue which is explored below.

B. *Factors deterring FPEI*

1. *State of EMs*

48. Some characteristics of EMs are often cited as factors which might deter foreign investment:

- Small size;
- High market concentration;
- Lack of liquidity, because of small volume of trading;
- Small number and small size of listed companies;
- Small number of active traders;
- High volatility;
- Inadequate market regulation or weak capacity to enforce rules, which can encourage insider trading and a "casino mentality".

49. Although some of these criticisms are still relevant because many EMs are at their "learning stage", important progress has been made. In many respects, some EMs are now comparable to DMs. Although the market capitalization of EMs is still small, the turnover ratio, i.e. the ratio of value traded over capitalization, in some EMs is comparable to that prevailing in DMs, thereby reflecting the liquidity of these markets (table 4).

50. Likewise, with a few exceptions (Argentina, Chile, Colombia, Venezuela and the Philippines), the concentration ratio of EMs, i.e., the share of market capitalization held by the 10 largest companies, is on average not higher than the average of DMs. The number of domestic companies listed in EMs has also increased and in some EMs is now quite large.

51. In an effort to make domestic stock markets internationally attractive, Governments in EM countries are taking steps to improve standards and regulation of stock markets. [32] Indeed, many regulations concerning market information and investor protection are adequately implemented and, in many EMs, are of internationally acceptable quality.[33]

52. Despite the progress made, relative thinness and high concentration can contribute to the high volatility observed in some markets,[34] as the small volume of trading, concentrated in a few listed stocks, can vary excessively in reaction to market changes. Return volatility also depends on the nature of information flows into a market. An unstable business and economic environment

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[32] For example, as reported by the press, Argentina (*Financial Times*, 10 August 1993), Thailand (*Financial Times*, 4 June 1993), and China (*Financial Times*, 26 May 1993), have recently undertaken regulatory reforms of their stock markets in order to attract foreign investors.

[33] See IFC: *Factbook 1993*, p. 26.

[34] It should be pointed out that, at times, mature markets can show high volatility, as in the case of Japan, for example.

can thus fuel volatility. Indeed, returns appear to be volatile in countries that pursue unstable monetary and exchange rate policies.[35]

2. Government policies

53. Government policies in both host and home countries can put obstacles in the way of international equity flows. In host countries, such obstacles can result from taxation policies and policies regulating foreign entry to domestic stock markets.

54. Withholding taxes on capital gains and on dividends can affect the pre-tax equity returns required by foreign investors, unless foreign investors can benefit from tax relief in the form of a tax credit or deduction from their national tax authorities.[36] As some developed countries (for example, the United States) generally provide such relief only for foreign dividend taxes, foreign taxes on capital gains are hence fully borne by the foreign investor and tend to increase pre-tax required equity returns, thus, increasing the cost of capital for issuing firms.

55. Of the 33 EM countries for which information is available,[37] only 11 apply taxes on capital gains; six countries tax neither capital gains nor dividends. At the same time, developing countries have also liberalised entry to their stock markets (table 2), and almost all the major EMs have allowed free repatriation of income and capital.

56. With regard to home countries, regulations concerning investments of institutional investors can be an important constraint on FPEI.[38] In most developed countries, savings institutions, such as insurance companies and pension funds, face ceilings on the share of foreign assets in their portfolio and are usually subject to prudent investment and diversification rules.

57. In Germany, tight regulations apply to insurance companies, which are required to invest in a few categories and in the same currency in which insurance payments are to be made. Consequently, these companies have invested only a tiny fraction of their portfolios overseas. Moreover, bonds are preferred to equity, as regulations (such as a stiff capital gains tax) favour the holding of debt over equity. Likewise, pension funds face prohibitive restrictions on foreign assets (such as ceiling of 5 per cent of total assets, 100 per cent matching of liabilities by assets in the same currencies, and restrictions on credit quality of investment).

58. In Japan, insurance companies and pension funds face less restrictive rules, as ceilings on holdings of foreign assets have been raised to 30 per cent of total assets. However, insurance companies cannot use capital gains to pay dividends to policy holders.

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[35] Mullin, op. cit., found a close correlation between the standard deviation of equity returns on the one hand, and standard deviation of dividend-per-share growth in US$, exchange rate volatility, inflation volatility, and export growth volatility, on the other hand.

[36] For an analysis of the incidence of taxes on required pre-tax equity returns, see Asli Demirgüç-Kunt and Harry Huizinga: *Barriers to Portfolio Investments in Emerging Stock Markets* (World Bank, Working Paper WPS 984, October 1992).

[37] See IFC: *Factbook 1993*, p. 27, table on withholding tax for US-based institutional investors at the end of 1992.

[38] Information on home country regulations is taken from: World Bank: *Global Economic Prospects and the Developing Countries*, 1993, pp. 41-42.

59. In the United States, state regulations have imposed severe limits on foreign investment of insurance companies and public pension funds, as well as restrictions on credit quality of investment and on composition of assets.

C. *FPEI prospects*

60. Against the background of the securitization of international capital flows, recent increases of FPEI in EMs are also explained by exceptionally high returns in EMs, supported by widespread growth-enhancing economic reforms in EM countries. However, returns in EMs have slowed down in the past two years, and some markets have remained highly volatile. Furthermore, the surge in portfolio flows to a number of Latin American countries was also due to a return of flight capital and to lower interest rates in the United States.[39] The question, thus, arises as to whether the recent pace of expansion of FPEI in EMs can be sustained in the near future.

61. Other factors, however, support the view that there are good longer-term prospects for further increases in FPEI flows to developing countries. The continuing progress made in raising the standards of EMs and in improving economic management in EM countries is likely to make these markets even more attractive. The strengthening of stock markets may reduce volatility, and high growth prospects are expected to induce high returns. Despite their growing integration in the global capital market, a trend which can increase their correlation with DMs, EMs still offer good opportunities for portfolio diversification. Correlation between EMs and DMs still remains lower than correlation among DMs, and new EMs will continue adding to the list of attractive markets for portfolio diversification. In addition, the enormous potential represented by the pool of savings held by institutional investors in OECD countries may increasingly seek investment outlets other than those offered by mature markets. As investment managers become more familiar with EMs, a relaxation of government policies in home countries concerning investment portfolios of these institutional investors could allow a multiple increase in FPEI.

III. HOST COUNTRIES' CONSIDERATIONS

62. Portfolio equity flows can potentially become an important source of external finance and present some advantages over debt finance. However, for host countries, implications of such flows for the management of their domestic economy and financial system raise many questions that need to be clarified.

63. A first set of questions is related to the role of stock markets in economic development. A recent debate has evolved about the merits of stock markets, in the context of recent experiences in developed countries.[40] Against this background, a number of issues relating to the role of stock markets in the financial systems of developing countries need to be discussed.

64. Secondly, questions are raised about the implications of FPEI for macro-economic management, and the costs and benefits of such flows.

65. Finally, taking into account the potential benefit of attracting equity finance from abroad, questions need to be addressed concerning the appropriate changes in the structure of EMs which would improve their standards and make them attractive to foreign investors.

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[39] UNCTAD: *Trade and Development Report, 1993*, United Nations publication, Sales No. E.93.II.D.10, p. 122.

[40] See Ajit Singh: "The stock market and economic development: Should developing countries encourage stock markets?" in *UNCTAD Review*, 1993, No. 4, pp.1-28. Singh argued that "even in advanced countries with well-functioning markets, the stock markets are likely to do more harm than good to the real economy".

A. <u>*The role of stock markets*</u>

1. *Costs and benefits of stock markets*

66. The role of stock markets should be viewed in the more general context of linkages between financial systems and economic development. The work of many precursors[41] on the important role played by the financial structure and financial intermediation in economic development, followed by the much debated work on the impact of financial liberalization on growth in developing countries,[42] have contributed to the wide recognition that financial systems matter in economic development.

67. An efficient financial system should provide the necessary financial services for the good performance of economic agents, thereby enhancing overall economic development. The problem is to define a generally acceptable concept of financial efficiency, as economies develop the types of financial services required by their economic agents, according to their level of development, policies and legal structures.

68. Despite these conceptual difficulties, some basic requirements of an efficient financial system can be identified:

- Adequate mobilization of savings (including foreign savings) through financial instruments;
- Efficient intermediation between investors and borrowers;
- Efficient allocation of resources to most productive users.

69. These characteristics involve the creation of many different types of financial institutions and instruments which respond to different risk/return and time preferences of investors, and to different cost-evaluation and risk-hedging behaviour of fund users. The financial system would have to provide the basic short-term (deposit-type or money market) and long-term (bonds) debt instruments, and risk capital (stocks and related instruments), matching the different financing needs of the economy. More advanced economies also create more sophisticated instruments to allow effective hedging against contingencies.

70. As economies develop and financial needs become more varied, stock markets will also develop to complement and compete with the banking sector, thereby

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[41] M. Gertler provides a good review of the literature on the real and financial interaction in: "Financial structure and aggregate economic activity: an overview", *Journal of Money, Credit and Banking*, Vol.20, No. 3 (August 1988, Part 2). On the linkages between financial structures and economic development, the main authors are: R.W. Goldsmith: *Financial Structure and Development* (Yale University Press, New Haven, Connecticut, 1969); Gurley, J.: "Financial Structures in Developing Economies", in D. Krivine, ed.: *Fiscal and Monetary Problems in Developing States* (New York, Praeger Publishers, 1967); Patrick, H.: "Financial development and economic growth in underdeveloped countries", *Economic Development and Cultural Change*, 14, January 1966.

[42] The seminal work on the impact of financial repression on growth was undertaken by: Gurley J. and Shaw, E.S. in: "Financial Structure and Development", *Economic Development and Cultural Change*, April 1967; McKinnon, R: *Money and Capital Economic Development* (Brookings Institution, Washington D.C., 1973). Many developing countries, often following the advice given by international financial institutions, have implemented financial liberalization policies with mixed results.

reducing the cost of capital for borrowers.[43] Stock markets would allow a diversification of company ownership, more efficient risk-sharing, and a healthier financial structure of corporations by improving their debt/equity ratios. Stocks will offer greater opportunities for investors to diversify their portfolios according to desired risk/return structures.

71. Secondary equity markets also help in matching the long-term horizon of borrowers with the short-term liquidity preference of investors. Through the stock price mechanism, a more effective allocation of investment might also result, as poor management of listed companies may have large effects on the price at which the market values a firm. Furthermore, listing on stock markets implies disclosure of information to investors; this will encourage firms to improve accounting standards and make management more transparent.

72. More efficient risk-sharing can be ensured: investors with greater inclination to risk are more willing to invest because of possibilities for sharing risks through stock offerings or for divesting through the secondary market. A broader ownership of shares allows the risk associated with the new project to be spread across many shareholders, who can in turn diversify across different companies. This will lower the risk premium component in the cost of capital.

73. The recent history of developing economies adds other objectives that stock markets can usefully serve. Government policies promoting privatization and debt-equity swaps, for example, can hardly be implemented outside the framework of a stock market. In addition, stock markets can become an important channel to raise external finance, as debt finance becomes less available as a consequence of the debt crisis.

74. However, stock markets are not without cost. The process of building investor confidence can be slow, as it requires a broad market, good regulation and capacity to enforce rules. The costs involved in building up an appropriate infrastructure and regulatory framework can be important. Furthermore, behaviour of stock markets can at times be destabilizing for the financial system.

75. Stock market cycles often arise because markets react quickly to domestic and international events. Stock prices can be volatile and do not always reflect changes in fundamentals.[44] Speculative "bubbles" may lead to price overvaluation and a subsequent crash, while price undervaluation may lead to speculative and hostile takeovers. Market cycles and price volatility may have important adverse implications for the ability of companies to raise funds in the primary market.

76. During the early stages of development, stock markets are more susceptible to market cycles and price volatility, because of the small volume of stock,

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[43] For a similar analysis of the role of stock markets, see also V. R. Errunza: "Capital market, foreign portfolio investment and economic development".

[44] The October 1987 worldwide crash of stock markets was attributed, in part, by some analysts to the existence of speculative "bubbles", based on overestimation of the value of stock in the boom period preceding the crash. High expectations of future price increases built up over a rather long period of upward price movements; as the degree of overvaluation increased, the pressure tending towards a sharp downward correction also increased. A small external shock (such as the uncertain international economic situation at that time) then led to a collapse in prices. Other analysts, however, have shown that prices were not overvalued and that the October 1987 crash was due mainly to other institutional causes, such as temporary failure of certain market mechanisms. See BIS, *58th Annual Report 1987/88* (Part IV: Developments in domestic financial markets) for a detailed analysis of the October 1987 crash.

relative ease of manipulation, and unsophisticated and inexperienced investors, underwriters and brokers. There may also be barriers to the dissemination of information, and companies appear to divulge less information with a greater time lag than in developed markets.

77. Operations on stock markets involve high intermediation costs. A large number of support personnel, including underwriters, brokers and investment analysts, is required. Companies issuing shares have to pay the costs of providing financial information, underwriters' commissions and other legal expenses. However, these costs may be roughly the same as for bank loans.

78. Recently, two main streams of research on asymmetric information and corporate control[45] have added other elements to the analysis of the costs and benefits of stock markets.

79. The existence of asymmetric information between borrowers (insiders) and lenders (outsiders) can result in situations of credit rationing and adverse selection. Insiders (managers of borrowing companies) control the company's operations and possess better information about the company's future returns. Outsiders possess less information about the company's prospects and acquire the information at a cost.

80. In the bank loan market, default probabilities differ across borrowers, due to factors lenders cannot observe. Banks, therefore, do not have all the necessary information to distinguish between risky and good borrowers. This imperfect information results in credit rationing, as some borrowers are excluded from the credit market, although the expected returns of their projects may be higher than those which obtain credit. Furthermore, a rise in interest rates lowers the average borrower quality, as those with relatively safe projects are the first to drop out because of the high cost of capital (adverse selection). High interest rates also tend to favour riskier projects with higher expected returns but also higher probability of default.

81. The development of an equity market is necessary in order to finance the riskier projects and, thus, to achieve the full efficiency of capital allocation of a liberalized financial system. Equity capital can finance the risky, productive borrowers excluded from the credit market because of imperfect information, while banks concentrate on the other well-established, safe borrowers.[46]

82. However, the problems of imperfect information and associated adverse selection also exist in equity markets, and can restrict companies' ability to issue new shares. Because of asymmetric information about the value of a firm's existing assets, the market cannot discern between good companies, which issue shares in a legitimate effort to either obtain new financing or diversify risk,

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[45] Given the vast literature on the two subjects, only articles most relevant in the context of this paper are cited here for reference. On asymmetric information, see: Stiglitz, J.E. and Weiss, A.: "Credit rationing in markets with imperfect information", *American Economic Review,* 71, 1981; Stiglitz, J.E. "Financial markets and development", *Oxford Economic Review of Economic Policy,* Vol. 5, No. 4, Winter 1989; Cho, Y.J: "Inefficiency from financial liberalization in the absence of well functioning equity markets", *Journal of Money, Credit and Banking,* 18 (2), 1986. On corporate control: J. Franks and C. Mayer: "Capital markets and corporate control: a study of France, Germany and the United Kingdom", *Economic Policy,* 1990; T. Jenkinson and C. Mayer: "The assessment: corporate governance and corporate control": *Oxford Review of Economic Policy,* Vol. 8, No. 3, Autumn 1992; Ajit Singh: "The stock market and economic development ....".

[46] The argument was developed by Y.J. Cho, op.cit, who concluded that full-scale liberalization of the banking sector would not achieve efficient capital allocation in the absence of well-functioning equity markets.

and bad companies, which are simply making an attempt to pass off bad assets. This problem may lower the price the firm can obtain for its equity and, in extreme cases, make it prohibitive to issue new shares. In some developed markets, it has been observed in the past that an adverse signal associated with issuing new shares has tended to lower share prices. In Japan and the Republic of Korea, however, the announcement of stock offerings is generally regarded as a good sign of profitable investment opportunities for the firms, and the market reacts positively.[47]

83. Credit rationing arising from imperfect information in both bank and equity markets can restrain the recourse to external finance and push companies to rely more on retained earnings.[48] However, the recent resurgence of equity issuance in developed countries[49] could indicate that the problem of credit rationing on equity markets might lose its importance.

84. Research on corporate control is concerned with the way in which capital markets exert control over the management and operations of firms. In economies with "market-oriented" financial systems, such as the United States and the United Kingdom, with widely dispersed shareholders, takeovers are regarded as a central function of stock markets in ensuring corporate governance. First, the threat of takeover may contribute to efficient management by making managers concentrate on maximizing shareholder value, rather than pursuing their own personal objectives. Second, in the event of managerial failure, takeover allows poor management to be replaced with good.

85. Elsewhere, in economies with "bank-oriented" financial systems, such as Japan and countries of Continental Europe, less emphasis is placed on the role of takeover in changing corporate control. Instead, banks, very often, families and the state, sometimes, have controlling shareholdings that impede the takeover process and exert monitoring powers on corporate governance. Furthermore, the close links between banks and companies would help to overcome the problem of credit rationing related to imperfect information, as banks would be more willing to provide the finance for corporate investment. Japanese corporate financial structure, for example, has been relatively dependent on bank lending.[50]

86. It has been asserted that takeovers undermine contractual relations between investors, managers and employees. As a consequence, long-tem investment may not be sustained. Financial markets in which takeovers are prevalent may, therefore, suffer from "short-termism", i.e. short-time horizons for corporate investment decisions.[51] Moreover, it is suggested that the expected rates of return on investment, hence the cost of capital, dictated by the quarterly or six-monthly earnings-per-share requirements of the Anglo-Saxon stock markets are too high, as compared with the cost of capital prevailing in Japanese and German capital markets.

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[47] Kim E.H.: "Issuing stocks in Korea" in *Research in Pacific Basin Capital Markets* (Elsevier Science Publisher, North Holland, 1989).

[48] See C.Mayer: "The assessment: financial system and corporate investment", *Oxford Review of Economic Policy*, Vol.3, No.4, Winter 1987.

[49] On new equity in the United States, see: E.M. Remolona, R.N. McCauley, J.S. Ruud and F. Iacono: "Corporate Refinancing in the 1990s"; Federal Reserve Bank of New York, Quarterly Review, Winter 1992-93. For Germany, see: "Learning to love equity", The Economist, July 3rd 1993, pp. 73-74.

[50] See J. Corbett: "International perspectives on financing: evidence from Japan", *Oxford Review of Economic Policy*, Vol.3, No.4, Winter 1987.

[51] See, for example, Franks and Mayer, op.cit. and Jenkinson and Mayer, op.cit.

87. Based on these observations and on the allegedly higher competitiveness of Japan and Germany over the United States and the United Kingdom, conclusions have been drawn on the "harm" that stock markets are likely to do to the real economy. According to this view, the "market-oriented" economies of the United States and the United Kingdom are less competitive than the "bank-oriented" economies of Japan and Germany because of differences in corporate control which might have implications for investment policies of companies.[52]

88. However, it should be noted, first, that these conclusions have been based on observations made on the most recent period. In earlier periods (in the 1950s and 1960s, for example), the United States' economy was quite competitive, while operating under the same market-based system. Second, reasons for differential competitiveness are various and include factors other than the financial systems of the countries concerned, such as cultural and industrial organizational differences. Third, in "bank-oriented" systems, although the problem of bank credit rationing can be mitigated for established firms, new entrants might face rationing on bank loans and, therefore, might have to rely on other sources of risk finance. Fourth, the possibility of a negative impact of takeovers on corporate governance does not invalidate other positive contributions of stock markets, as equities remain important financial instruments for spreading risks and ensuring a healthy corporate financial structure. (Indeed, despite the important role played by banks, the Japanese stock market is the second largest market in the world, after the United States). In many developing countries, the interlocking between major corporate and bank interests has had an adverse impact on the solvency and efficiency of the financial system; it has also contributed to barring entry into product markets by new firms, thereby hindering efficient industrial development. Fifth, over the last few years, the German and Japanese systems appear to have shown some signs of reform[53] under the pressure of global integration and liberalization of their capital markets. At the same time, the growing importance of institutional investors in the United States and the United Kingdom could result in a different form of corporate control, as these investors will be better able to monitor corporate governance than individual shareholders. Developing countries can draw lessons from these experiences.

2. Resource mobilization and stock markets in developing countries

89. A general conclusion which may be drawn from the foregoing is that a country with a fairly developed industrial sector can derive benefits from the development of stock markets, which would promote a more dynamic development pattern because stock markets can usefully complement the banking sector by providing risk finance.

90. An increasing number of developing countries have established stock markets, testifying, thus, their recognition that a stock market has a role to play in the financial system (table 2). In the period of the 1950s and before, 14 stock markets were established; in the 1960s, six; in the 1970s, nine; in the 1980s, ten; in 1990-1991, eleven. The pace of stock market creation has recently accelerated, as developing countries and Eastern European countries have become more market-oriented.

91. Mexico,[54] for example, gives an important role to its equity market as a source of risk capital, as an instrument for the implementation of privatization programme, as a means to attract foreign capital and as a factor contributing to improved management of domestic companies. Indeed, access to the domestic

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[52] Argument advanced by Ajit Singh, op.cit.

[53] Small shareholders in Germany and Japan are putting pressure on companies for more control on management (*Financial Times*, 1 July 1993 and 1 October 1993).

[54] See: *Case study submitted by Mexico.*

equity market obliges corporations to improve accounting standards and management and helps to maintain an adequate ratio between equity and debt.

92. Scattered information on the contribution of stock markets to corporate finance indicates that equity issuance has recently surged in the more advanced developing countries (table 6). One way to assess the importance of equity as a source of corporate investment capital is to measure new equity issues by domestic firms as a ratio of gross domestic investment (GDI).[55] In some of the rapidly growing economies of East Asia, this ratio has reached high levels in some years. For example, in the Republic of Korea new equity issues represented about a third of GDI in 1989. In Thailand, the ratio was equivalent to 28 per cent in 1989 and nearly 20 per cent in 1990. In Malaysia, this ratio reached 21.6 per cent in 1990, while Taiwan Province of China, had an average ratio of 10 per cent for the period 1989-1992. By contrast, Latin American countries seem to rely less on stock markets to finance investment, although Mexico has shown a tendency to increase equity issuance in the latest years.

93. A study comparing the experience of EMs with that of DMs has found that equity issuance in several of the rapidly growing economies of East Asia has exceeded the post-Second World War norm for G-7 economies and has been roughly in line with the high rates of equity issuance experienced by the United States during an earlier stage in its development process.[56] This behaviour is consistent with the hypothesis that equity issuance as a source of finance tends to become increasingly important in the latter part of an economy's rapid-growth stage of economic development and subsequently becomes more modest.

94. Another study on corporate finance in developing countries over the period 1980-1987 has also found that firms in some of the eight sample countries included in the study relied on equity for an important part of their investment finance.[57] The percentage of equity in the financing of corporate growth was 40.3 per cent for the Republic of Korea, 12.3 per cent for Pakistan, 84.1 per cent for Jordan, 76 per cent for Mexico, 11 per cent for India, 60.5 per cent for Turkey, 31.4 per cent for Malaysia and 4.3 per cent for Zimbabwe.

95. Finally, a positive relationship between growth and stock market development has been observed for some countries. A significant correlation between the ratios of stock market capitalization to GDP and rates of growth over the period 1983-1991 has been found in the cases of Brazil, Malaysia and Venezuela, while other countries, such as Jordan, Colombia, Mexico, Republic of Korea, Thailand and India, have also shown a positive correlation between these two variables.[58] The direction of causation cannot, however, be ascertained: does stock market development support growth, or does growth induce an enlargement of stock markets?

96. These preliminary observations provide evidence on the role played by stock markets in the mobilization of finance, especially in dynamic developing countries. In a number of countries, stock markets develop rapidly, *pari passu*

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[55] It could be argued that in some cases funds raised through equity issues might not be fully used to increase corporate investment. However, at an aggregate level, companies would tend to use equity funds to finance long-term investment rather than current expenditures.

[56] Mullin: "Emerging equity markets in the global economy", in particular pp. 72-75.

[57] Ajit Singh and Javed Hamid: *Corporate financial structures in developing countries*, Technical Paper No.1, IFC, Washington D.C. 1992.

[58] The correlation coefficients between the ratios of stock market capitalization to GDP and rates of growth are the following: Brazil, 0.66; Venezuela, 0.63; Malaysia, 0.57; Jordan, 0.47; Colombia, 0.47; Republic of Korea, 0.45; Mexico, 0.43; Thailand, 0.42; India, 0.40.

with economic growth, and in periods of favourable stock prices, corporations rely on equity issuance for an important part of their financial requirements. More research, however, is needed to analyze in greater depth the contribution that stock markets can make to efficient resource allocation in developing countries.

B. *Macroeconomic and financial impact of FPEI*

1. Macroeconomic impact

97. In the aftermath of the financial crisis resulting from the sizable accumulation of debt finance of the 1970s, developing countries have intensified efforts to attract non-debt-creating external finance, such as foreign direct investment and FPEI. The main advantage derived from these flows is that the service on capital imported is linked to returns of the investment made, thus helping to match service payments to ability to pay.

98. However, the important size of capital inflows that developing countries have recently attracted has caused concerns about the macroeconomic impact of these flows and the increased risks that they might entail for domestic capital markets because of unpredictable outflows. The recent surge in capital inflows in a number of Latin American countries has resulted in an appreciation of real exchange rates (stemming from an appreciation of nominal exchange rates under a flexible exchange rate regime or from an increase in inflation under a fixed exchange rate regime), which might threaten the competitiveness of recipient countries. By contrast, the increase in capital inflows in recent years in some fast-growing Asian countries has not been accompanied by an appreciation of real exchange rates.[59]

99. Countries have reacted to the macroeconomic impact of capital inflows by using a combination of policies, including complete liberalization of the current account, fiscal restraint, sterilization operations, controls on capital inflows and widening of the band of permissible exchange rate fluctuations. These policies have contributed to arresting real exchange rate appreciation.

100. As far as FPEI is concerned, the size of such inflows in individual countries is not large enough to have a major impact on real exchange rates. The negative impact would rather result from the possibility of massive withdrawal of cumulative equity investment in response to changes in short-term returns. Such outflows could result in payments difficulties and could have a destabilizing impact on the economy. If residents are ready to buy the stock that foreigners want to sell, this will cause a drain in foreign exchange reserves. Otherwise, the effect will be a sharp drop in stock prices. The decline in stock prices could, however, be equally detrimental to the economy, if it affects other parts of the financial system and if it is prolonged enough to depress investment and consumption (through the wealth effect).

101. Experiences so far indicate that such fears of massive outflows are largely unfounded. Immediately following the opening up of domestic markets, there are some net fund outflows but soon after, the emerging markets attract substantially positive net flows which become more stable thereafter.[60] It has also been found

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[59] See V. Corbo and L. Hernandez: "Macroeconomic adjustment to portfolio capital inflows: Rationale and some recent experiences", paper presented at the World Bank Symposium on Portfolio Investment in Developing Countries, 9-10 September, 1993.

[60] Han Kim and Singal, op.cit., using data on United States portfolio investment in EMs, have found that in those EMs which have largely opened the door to foreign investment (after a period of limited entry of foreign flows), net equity flows were negative in the first few months after opening, but thereafter became largely positive. Moreover, the mean volatility of flows for (continued...)

that while global investors are "trading" equities of DMs (increasingly with derivative instruments) in search of arbitrage opportunities, they are "investing" in the EMs, steadily building up exposure. Over the 1986-1992 period, the ratio of average holdings of stock over total value of trading of global investors' foreign equity portfolios was on average equivalent to 2.6 times annually in DMs, and 0.8 times in EMs.[61] Furthermore, the possibility of destabilizing outflows does not arise in the case of funds raised through depository receipts which are traded abroad. As noted above, depository receipts are currently the dominant component of FPEI.

2. Financial impact

102. Increases in return volatility in EMs have been observed after the opening up of these markets. However, this was not due to the volatility of equity flows (which were, on the contrary, stabilized in the period following opening-up), nor to increased sensitivity to price swings in foreign stock markets (which showed no trend in volatility). The increase in market volatility might be due to higher market efficiency, as new information is reflected in prices more fully and quickly, with increased liquidity and more frequent trading. Nevertheless, because of this possible effect on markets which are already volatile, a case can perhaps be made for a gradual liberalization of domestic stock markets.

103. On the other hand, FPEI brings benefits through the mobilization of additional finance, a reduction of capital costs for domestic firms and an improvement in the standards of local stock markets.[62] The issuing of shares by domestic firms on international capital markets through international offerings and depository receipts, as well as purchases by foreigners of new share issues on local markets, will directly finance an increase in investment. Even in the case of stock purchases by foreigners on the secondary markets, this will also help indirectly to finance investment. In the first place, the increased wealth of local investors can be expected to induce an increase in their consumption, which in turn, might encourage domestic production and investment; the sellers of stocks might also decide to use part of their wealth to finance other investments. In the second place, the increase in foreign demand for local stocks will increase the equity prices, which will lower the cost of capital and encourage new equity issues.

104. FPEI, indeed, has contributed to a reduction of capital costs for domestic firms. By removing the segmentation of local markets, the opening of stock markets lowers the cost of equity capital, as the national systematic risk factor included in expected returns is reduced and the increase in foreign demand for local stock also contributes to raising stock prices.[63] In fact, local price-earnings ratios have increased in the last two or three years in a number of

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[60](...continued)
the period following opening is much lower than the mean volatility of flows during the period preceding opening.

[61] M. Howell (Baring Securities): "Institutional Investors as a Source of Portfolio Investment in Developing Countries", 9-10 September, 1993.

[62] See V.R. Errunza: "Capital market, foreign portfolio investment and economic development", for an analysis of benefits derived from FPEI.

[63] Companies in developing countries that have listed American depository receipts (ADRs) have seen their costs of capital decline; see: World Bank, *Global Economic Prospects...* Likewise, there is some evidence, based on country funds listed in American stock exchanges, that the introduction of country funds in the developed markets increased the prices of the underlying component assets traded on originating emerging markets. On the latter, see: V. Errunza, L. Senbet and I. Diwan: "Country funds: theory and evidence", paper presented at the World Bank Symposium on Portfolio Investment in Developing Countries, 9-10 September, 1993.

emerging markets,[64] indicating, thus, lower required rates of return on equities.

105. Finally, FPEI is expected to help in the further development of domestic stock markets. Foreign investors would instill confidence among local investors, demand timely and quality information, as well as minority protection, and require adequate market and trading regulations. FPEI would also encourage the development of new institutions and services, transfer of technology and training of local personnel.

106. In the view of the Mexican authorities, FPEI has had a positive impact on the economy,[65] bringing additional resources which complement domestic savings and helping to improve standards of domestic stock markets. Issues of ADRs have required the standardization of certain regulatory practices between Mexico and the United States, with a view to providing equal opportunities to all participants.

C. *Measures to attract FPEI*

107. Foreign investors have been mainly attracted by high returns in EMs, which are broadly determined by growth and macroeconomic performance of EM countries. Countries that have attracted FPEI flows are generally those with high growth prospects and which have become internationally competitive.

108. Given the huge potential represented by institutional savings in OECD countries, there is room for further increases in FPEI in both well established markets and other new markets. In order to encourage such flows, countries will have to build up investors' confidence by strengthening the operational framework of local stock markets. This will require two necessary preconditions:

- A stable economic policy framework conducive to growth: this will ensure a large supply of good-quality equities and sufficient demand for them;
- An adequate institutional regulatory and legal infrastructure capable of supporting efficient operation of the securities market. Basic requirements for an adequate infrastructure are briefly reviewed below.[66]

1. *Institution-building*

109. Institutional infrastructure forms the operational basis for the market: intermediaries to facilitate trading, investment management and financial advisory services; market and market-related service providers for stock exchanges, over-the-counter market, market information services, transaction clearance and settlement system, and securities transfer, registration and custody; and providers of ancillary services such as accounting and auditing, legal advice, and financial valuation and debt rating services.[67] The

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[64] Price-earnings ratios increased in 1990-1992 in Argentina, Chile, Colombia, India, Mexico, Nigeria, Pakistan, Venezuela: see IFC, *Factbook 1993*.

[65] See *Case study submitted by Mexico*.

[66] Infrastructure requirements are treated by : A.W. Van Agtmael: *Emerging Securities Markets* (Euromoney Publications, London, 1984); R. Pardy: "Institutional reform in emerging securities markets", World Bank Working Papers, WPS 907, May 1992; T.M. Chuppe and M. Atkin: "Regulation of securities markets", World Bank Working Paper WPS 829, January 1992; V. Errunza: "Capital markets, foreign portfolio investment and economic development".

[67] This review on institutional, legal and regulatory framework, as well as on the role of government in the development of markets, draws heavily on R. Pardy, op.cit, and Chuppe and M. Allin, op.cit.

development of contractual savings institutions which can act as major players on local stock markets is also an important step to strengthen stock markets.

2. Legal and regulatory framework

110. An adequate legal and regulatory framework for the development of a viable securities market should protect investors, promote public confidence and guarantee market discipline. It should have four basic functions: prudential, protective, organizational and structural.[68]

111. First, prudential standards establish capital adequacy requirements, safekeeping of securities and financial reporting requirements for intermediaries, as well as a system for monitoring and enforcing such requirements. Entry criteria such as financial soundness and technical competence are also defined in order to reinforce the stability of the system as a whole.

112. Second, an effective framework should be set to protect investors from market manipulations and lack of transparency. It emphasizes information disclosure, clarity of contractual relationships, and strict fiduciary responsibility. Investor protection against unfair practices (such as insider trading and price manipulations) should also be provided through the imposition of penalties for wrong-doing. Regulations on information disclosure include an effective legal system to specify and enforce disclosure standards for all companies issuing securities to the public and listing securities for secondary trading on stock exchanges. In addition, these laws and rules should be backed up by the adoption and use of generally accepted accounting principles and auditing standards by an accounting profession which adheres to a stringent code of ethics.

113. Third, organizational controls provide for the establishment and operation of stock exchanges, clearing houses and market information systems. While there is a great deal of variation in regulatory structures among countries, a regulatory model based on the concept of self-regulation of (often private) market organizations (such as stock exchanges, accounting standards board, and accounting and auditing professional associations) with government oversight is most commonly employed in developed countries today.

114. In the EMs, the type of regulatory structure applied depends on the level of market development and the extent to which associated infrastructure in place. At the early stage of market development, government or quasi-government organizations (e.g. a government-operated stock exchange) tend to exert a greater influence on the market. This often occurs because the basic infrastructure for a securities markets is not yet appropriate. Government regulatory bodies often have a mandate to facilitate the development of the market as well as to establish regulations for the protection of investors. Self-regulation has not played an important role. In recent years, there has been a trend to establish a securities commission or similar organization at about the same time the securities market receives a legal mandate to begin operations (e.g., Poland and Hungary). In contrast, India, Thailand and Malaysia, which have fairly well developed markets, only recently established securities commissions. These countries previously relied before on a mix of self-regulation and government controls over certain activities such as new issues of securities and market access.

115. Fourth, structural controls allow Governments to manage the overall composition and shape of securities markets through such mechanisms as restrictions on foreign ownership of intermediaries, on the type of activity in which intermediaries may engage, and on the specifications of the instruments which may be traded.

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[68] See Dimitri Vittas: "The impact of regulations on financial intermediation", World Bank Working Paper WPS 746, August 1991.

116. Finally, the implementation and enforcement of laws and general policies established for the performance of these four basic functions are likely to have as much impact on the efficiency, fairness and stability of the market as the adoption of laws and policies themselves.

3. Other governmental measures

117. In EMs, Governments often play an active role in developing the equity markets through various incentives. At an early stage of market development, Governments have a range of tools available to stimulate equity market growth. Governments can:

- Reduce capital-raising costs by offering a significant tax advantage to companies which go public and list their shares;
- Increase the stock of tradable securities to provide market depth, for example by directing companies of a certain size and with a certain length of business history to list their shares;
- Reduce transaction costs by fixing brokerage commission fees at a low level;
- Reduce market infrastructure costs by financing (and eventually operating) a stock exchange or a securities clearing organization;
- Apply low or zero capital gains tax.

Table 1

Estimates of foreign portfolio equity flows to developing countries
A. World Bank (gross purchases)

(US$ billion)

	1989	1990	1991	1992
Country funds	2.2	2.9	1.9	0.6
Depository receipts	0.0	0.1	4.9	5.6
Direct equity investment	1.3	0.8	1.5	1.9
Total portfolio equity inflows	3.5	3.8	7.9	8.2

Source: World Bank, *World Debt Tables 1992 - 1993*, Volume 1.

B. Baring Securities (net flows, i.e. purchases net of sales of equities)

(US billion)

	1986	1987	1988	1989	1990	1991	1992
Total (primary and secondary markets)	0.94	1.72	1.33	8.62	12.58	13.15	17.12
Primary issuance (including depository receipts)	0.50	0.00	0.03	0.19	1.25	4.44	6.16
Secondary market (net flows)	0.89	1.72	1.30	8.44	11.33	8.71	10.96
Geographical distribution: Secondary markets + ADRs							
Latin America	0.15	0.28	0.66	4.83	8.98	10.49	8.00
% of total	(16.7)	(16.7)	(50.4)	(57.5)	(78.7)	(87.7)	(57.1)
South East Asia	0.70	1.27	0.58	1.42	1.51	0.85	4.41
% of total	(77.8)	(74.7)	(44.3)	(16.9)	(12.2)	(7.1)	(31.5)
Other emerging	0.05	0.15	0.07	2.15	0.92	0.65	1.59
% of total	(5.5)	(8.8)	(5.3)	(25.6)	(8.1)	(5.4)	(11.4)
Total	0.90	1.70	1.31	8.40	11.4	11.99	14.00

Source: Baring Securities: Cross-Border Capital Flows, A study of Foreign Equity Investment, 1991/92 Review.

Note: Baring Securities country coverage might differ from World Bank's coverage.

Table 2
Emerging Stock Markets

Country/territory	Established (date)	Number of listed companies	Restrictions on foreign ownership
Asia:			
China			
Shanghai	1990, 1991 for (B shares)	10	Foreign investors may buy only B shares, which rank pari passu with ordinary A shares.
Shenzhan	1990, 1991 for (B shares)	9	
India			
Bangalore	1957	350	Foreigners may hold up to 5% of capital of listed companies.
Bombay	1875	2781	
Calcutta	1908	2456	
Delhi	1947	2114	
Madras	1937	717	
Indonesia			
Jakarta	1977	155	Foreign ownership may not exceed 49% of any company's shares.
Surabaya	1989	164	
Rep. of Korea	1956	688	Foreign individual investment must not exceed 3%; total foreign investment must not exceed 10% of capital of listed companies. The limit has been lifted to 25% for certain companies.
Malaysia	1973	366 (3 foreign)	Foreign ownership of companies is generally restricted to 30% for banks and financial institutions, but can reach 100% for other stocks.
Nepal	1984	49 (5 foreign)	Regulated by Foreign Exchange Regulation Act 2019.
Pakistan			
Karachi	1948	628 (63 foreign)	None
Lahore	1970	453 (36 foreign)	
Philippines			
Makati	1965	162	Foreign ownership of any company may not exceed 40%. Foreign investors are limited to class B shares.
Manila	1927	170	

Table 2 (... continued)

Emerging Stock Markets

Country/territory	Established (date)	Number of listed companies	Restrictions on foreign ownership
Sri Lanka	1985	190	Foreigners may purchase up to 40 % of equity of any listed company with certain exceptions (49% of any bank).
Taiwan, Province of China	1961	256	Foreign institutions may own up to 5%of shares in any listed company; total foreign ownership of any listed company may not exceed 10% of the total shares outstanding. Foreigners may not invest in certain companies.
Thailand	1960 (reorganized 1975)	305	Foreign ownership of shares is limited to a maximum of 49% of non financial companies and 25% of financial companies.
Hong Kong	1914 (reorganized 1986)	413 (27 foreign)	None
Singapore	1973	163 (14 foreign)	Foreign investment is restricted only for certain industries such as banks, finance, publication and transportation companies.
<u>Latin America</u>:			
Argentina			
Buenos Aires	1854 (reorganized 1929)	175	None
Rosario	1884	172	
Barbados	1987	15	Subject to exchange control approval.
Brazil			
Rio de Janeiro	1985	593	Mutual funds and institutional investors may invest freely. Individuals may not invest directly.
Sao Paulo	1893	565	There is a limit of 49% of voting common stock
Chile	1890	245	None

Emerging Stock Markets

Country/territory	Established (date)	Number of listed companies	Restrictions on foreign ownership
Colombia	1928	80	None
Costa Rica	1976	93	None
Ecuador	1969	85(3 foreign)	None
El Salvador	1992	-	None
Honduras	1990	28	None
Jamaica	1969	48	None
Mexico	1894	195	Foreigners may buy the following types of shares: series B (free subscription), series A (neutral funds), series C&L (non-voting).
Panama	1990	11	None
Peru	1970	287	None
Trinidad & Tobago	1981	27	Purchases that result in foreign investors owning more than 30% of a listed company require a license.
Uruguay	867 (reorganized 1927)	26	None
Venezuela	1947 (reorganized 1974)	66	Foreign investors must be registered and approved by the Foreign Investment Superintendency. Foreign ownership up to 100% except bank stock.
Middle-East and Africa			
Botswana	1989	10 (4 foreign)	Foreign ownership is limited to 25% of free capital of listed companies; any individual foreign investor may not own more than 5%.
Côte d'Ivoire	1976	24	None
Egypt	1883 (reorganized 1981)	656	None

Table 2 (... continued)

Emerging Stock Markets

Country/territory	Established (date)	Number of listed companies	Restrictions on foreign ownership
Ghana	1990	13	Because of the Foreign Exchange Control Act, foreigners must obtain approval from the Bank of Ghana in order to invest.
Jordan	1978	103	None
Kenya	1954	57	None
Kuwait	1984	39 (10 Foreign)	Nationals from GCC member countries may invest in sectors other than banking and insurance.
Mauritius	1989	22	Legislation is expected that will allow foreigners to invest in unit trust and, within approved limits, in the stock exchange.
Morocco	1929 (reorganized 1967)	62 (6 foreign)	None
Nigeria	1960	153	Restrictions
Turkey	1986	145	None
Zimbabwe	1975	62	Restrictions
Eastern Europe:			
Bulgaria	1991	-	None
Hungary	1990	23	Currently foreigners may own only registered shares.
Poland	1991	16	None
Russian Federation	1991	10	No restrictions on corporate securities: foreign purchases of state-owned securities require permission from the Ministry of Finance.
Slovenia	1990	26	None

Sources: Institutional Investor, October 1992; IFC: Emerging Stock Markets Factbook 1993.

Table 3
Emerging stock markets
Growth rates (annual)

	1976-1980	1980-1985	1985-1990	1990-1992
Market capitalization				
- Latin America	171.9	6.2	7.7	79.9
- Asia	33.1	-0.1	36.0	23.7
- Total emerging markets	45.5	1.8	28.7	32.1
Trading Value				
- Latin America	29.5	18.4	- 2.4	98.9
- Asia	31.8	-4.4	99.9	-18.9
- Total emerging markets	31.4	3.0	77.0	-13.8

Source: IFC, Emerging Stock Markets Factbook, various issues.

Table 4

Summary statistics on stock markets, 1992

	Capitalization (Mil. US$) (1)	Value traded (Mil. US$) (2)	Turnover ratio % (3)=(2)/(1)	Share of market cap. held by 10 largest cies end 1992 % (4)	Number of listed companies (5)	Share of value traded held by ten most active stocks, 1992 % (6)
Latin America						
Argentina	18 633	15,679	84	68.8	175	72.5
Brazil	45 261	20,525	45	29.3	565	51.2
Chile	29 644	2,029	7	53.8	245	57.9
Colombia	5 644	554	10	78.5	80	62.9
Mexico	139 061	44,582	32	31.7	195	39.4
Venezuela	7 600	2,631	35	59.6	66	80.0
East Asia						
Philippines	13 794	3,104	22	52.2	170	30.6
Rep. of Korea	107 448	116,101	108	30.5	688	22.4
Taiwan, Prov. of China	101 124	240,667	238	30.2	256	15.4
South Asia						
India	65 119	20,597	32	22.6	6 700	32.2
Indonesia	12 038	3,903	32	39.2	155	61.4
Malaysia	94 004	21,730	23	30.9	366	14.0
Pakistan	8 028	980	12	23.0	628	19.1
Thailand	58 259	72,060	124	28.5	305	36.3
Europe/Middle East/Africa						
Jordan	3 365	1,317	39	49.4	103	31.6
Nigeria	1 243	23	2	48.5	153	53.6
Turkey	9 931	8,191	82	39.9	145	11.4
Zimbabwe	628	20	3	36.5	62	47.7
Developed markets						
Canada	243 018	83,448	34	30.8	1 119	...
France	350 858	125,052	36	28.7	786	...
Germany	348 138	892,037	256	40.4	665	...
Japan	2,399 004	635,261	26	16.5	2 118	...
Switzerland	195 285	75,407	39	53.5	180	...
UK	838 579	382,996	46	24.2	1 874	...
USA	4,757 879	2,678,523	56	14.9	7 014	...

Source: IFC, Emerging Stock Markets Factbook 1993

Table 5

Monthly return correlation coefficients with the U.S. Index

Country/territory	1976-1980	1981-1984	1984-1988	1988-1992
Argentina	-0.052	0.071	-0.04	0.03
Brazil	-0.023	0.057	0.08	0.14
Chile	-0.172	-0.133	0.20	0.15
India	0.269	-0.071	0.04	-0.16
Jordan	0.379	0.080	0.03	0.24
Malaysia	...	...	0.16	0.53
Mexico	0.223	-0.102	0.26	0.31
Philippines	...	...	0.28	0.40
Rep. of Korea	0.231	0.148	0.04	0.20
Taiwan, Prov. of China	...	...	0.17	0.12
Thailand	-0.358	0.235	0.27	0.41
Turkey	...	...	0.26	-0.13
Zimbabwe	-0.035	0.181	0.22	0.03
EAFE[a]	...	...	0.41[b]	0.45

Sources:
- The 1976-1980 and 1981-1984 results are reproduced from: Errunza, V. and Padmanabhan, P.: "On benefits of portfolio investments in emerging markets", *Financial Analysts Journal*, July-August 1988, pp. 76-78.
- The 1985-1990 and 1987-1992 data are from IFC, *Emerging Stock Markets Factbook*, 1989, 1993.

[a] Composite index of Europe, Australia, Far East

[b] 1985-1989

Table 6

New capital raised by domestic companies on stock markets, 1989-1992
(year-end exchange rates)

	1989			1990			1991			1992		
	Total (million US$)	% of market capitalization	% of gross domestic investment	Total (million US$)	% of market capitalization	% of gross domestic investment	Total (million US$)	% of market capitalization	% of gross domestic investment	Total (million US$)	% of market capitalization	% of gross domestic investment
Argentina	5.0	0.1	0.4	189.0	5.8	2.6	263.1	1.4	...	311.5	1.7	...
Brazil	189.7	0.4	0.7	243.6	1.5	0.6	314.4	0.7	0.1	233.1	0.5	...
Chile	...	...	...	...	...	...	183.0	0.6	3.5	479.3	1.6	6.9
Mexico	591.1	2.6	1.7	1078.0	3.3	2.5	3433.1	3.5	6.3	4851.2	3.5	...
Turkey	...	...	...	...	...	...	2066.1	13.2	11.7	1178.5	11.9	...
Hong Kong	2242.9	2.9	13.0	2662.3	3.2	13.5	4904.3	4.0	21.3	13220.4	...	...
Malaysia	592.8	1.5	5.3	2994.8	6.2	21.6	1235.1	2.1	...	3624.6	3.9	...
Rep. of Korea	21585.0	15.3	32.4	4072.9	3.7	4.6	3545.1	3.7	3.4	2278.6	2.1	2.2
Singapore	512.6	1.4	4.8	1259.5	3.7	9.4	...	...	...	...	...	...
Taiwan	3254.4	1.4	10.0	3537.3	3.5	10.1	4310.7	3.5	10.6	4696.9	4.6	9.9
Thailand	6008.3	23.4	28.0	5701.3	23.9	19.8	2359.7	6.6	...	2147.9	3.7	...

Source: - *Rapport de la Federation International de Bourses de Valeur*, various issues.
- IFC, *Emerging Stock-Markets, Factbook 1993.*
- World Bank, *World Tables 1993.*