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Emerging Equity Markets: Growth, Benefits, and Policy Concerns

by

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Abstract

Since the mid-1980s, there has been a very substantial increase in stock market activity in many developing countries. This paper first examines the main characteristics of the emerging stock markets, and illustrates the evolution of equity prices in these markets over the last decade. It then discusses the reasons for the markets' growth and assesses the extent to which domestic policies, as well as external factors, have played a role. This is followed by a discussion of the likely benefits of these markets; the effects which any abrupt correction in stock prices could have for the economy; and the ways in which these markets can be made more efficient.

JEL Classification Numbers:
E5, G1, G3

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I. Introduction

The very rapid growth of the so-called emerging equity markets in recent years has brought to the forefront a number of important questions about the operations of these markets. What are the factors underlying their growth? What are the benefits of these markets, both to the home country and to international investors? In light of their recent performance, are there associated risks, for instance, of an abrupt correction in market prices? If so, what are the economic implications? What might policy makers do to improve the way these markets operate?

This paper discusses these various questions. To set the stage, it first examines the salient characteristics of emerging equity markets and discusses the evolution of equity prices over the last decade (Section II). It emphasizes that these markets should not be seen as a homogeneous group. Rather, there are significant differences in the size and structural characteristics of these markets, with some still in early stages of development but others approaching the sophistication of industrial country markets. It then considers the reasons for the growth of emerging equity markets and examines the role played by improvements in policies and changes in the "fundamentals", as well as by external capital inflows (Section III). Where markets have grown the fastest, macroeconomic and structural policy reforms together with measures to improve the institutional setting have generally played a key role. These factors have also been instrumental in attracting foreign capital, although external factors such as low international interest rates have also been important.

The paper then examines the benefits of equity markets to developing countries, and some of the concerns that have been raised because of the sharp growth of these markets (Section IV). On benefits, it notes that the growth of equity markets has contributed to the mobilization and more efficient allocation of domestic saving, with an increasing proportion of new corporate funding being raised in these markets. In addition, it argues that while a reasonably efficient banking sector, by facilitating transactions, is necessary for the sustained development of these markets, there are a number of constraints which may prevent banks from providing long-term investment finance. Also, the continuous valuation of share prices, and the possibility of takeovers, can impose discipline on the behavior of firms and lead to a more efficient allocation of capital.

The main concern with the growth of these markets is not so much with their oft remarked short-term volatility per se, but with the possiblility of the bursting of speculative bubbles, and a significant reversal of capital inflows into these markets, that bring with them abrupt corrections in market prices. Such corrections can have serious implications for the stock markets and for the financial sectors. Moreover, the adverse wealth and confidence effects which follow from a major stock market adjustment can have important macro-economic consequences as illustrated by the experience of several industrial and developing countries over the last decade.

The last section of the paper explores ways in which equity markets can be made more efficient. These include a number of institutional and policy reforms aimed at reducing the likelihood of speculative bubbles forming, while leading to a further improvement in the efficiency of these markets. Improving the functioning of equity markets and hence secondary trading has the added advantage of facilitating the primary issuance of equity shares.

II. Characteristics of Emerging Equity Markets

There are 38 emerging stock markets, including 13 in Asia, 12 in Latin America, 7 in Africa, and 6 in the Middle East and Europe (Table 1). 1/

1/ Note that this is according to the classification used by the Economist which counts Hong Kong and Singapore as part of the emerging markets. The IFC regards both these countries as developed markets. It should also be noted that many other countries, including several former centrally planned economies, are in the process of developing equity markets.

Table 1. Market Capitalization of Traded Equities 1/
(Billions of U.S. Dollars, and Percent of GDP)

	1983		1992	
	Billions of US Dollars	Percent of GDP	Billions of US Dollars	Percent of GDP
Latin America				
Argentina	1.4	1.3	18.6	8.2
Barbados	na	na	0.3	16.4
Brazil	15.1	7.4	45.3	11.7
Chile	2.6	13.2	29.6	78.1
Costa Rica	0.1	3.8	0.5	7.7
Colombia	0.9	3.1	5.7	11.6
Jamaica	0.1	2.8	3.2	100.7
Mexico	3.0	2.0	139.1	43.0
Peru	0.5	2.6	2.6	5.6
Trinidad and Tobago	1.0	12.8	0.5	9.2
Venezuela	2.8	3.5	7.6	12.4
Uruguay	--	--	0.4	3.5
East Asia				
China	na	na	18.3	4.2
Hong Kong	17.1	70.8	172.1	177.0
Korea	4.4	5.3	107.4	36.2
Philippines	1.4	4.3	13.8	26.2
Singapore	15.5	89.2	48.8	106.0
Taiwan Province of China	7.6	14.5	101.1	48.9
South Asia				
Bangladesh	0.05	0.4	0.3	1.3
India	7.2	3.5	65.1	26.7
Indonesia	0.1	0.1	12.0	9.3
Malaysia	22.8	76.1	94.0	163.3
Pakistan	1.1	3.7	8.0	15.8
Sri Lanka	na	na	1.4	14.5
Thailand	1.5	3.8	58.3	55.4
Europe/Middle East/Africa				
Cote d'Ivoire	0.3	4.4	0.3	NA
Egypt	1.1	3.0	2.6	6.2
Greece	1.0	2.9	9.5	12.0
Iran	na	na	1.2	0.1
Jordan	2.7	56.7	3.4	73.9
Kenya	na	na	0.6	7.5
Mauritius	na	na	0.4	13.2
Morocco	0.3	2.1	1.9	6.6
Nigeria	3.0	3.7	1.2	4.5
Portugal	0.1	0.5	9.2	10.9
Tunisia	na	na	0.05	0.3
Turkey	1.0	2.0	9.9	8.9
Zimbabwe	0.3	4.8	0.6	8.2
Largest Industrial Countries				
Canada	141.0	42.8	243.0	42.7
France	38.1	7.2	350.9	26.5
Germany	82.6	12.6	348.1	17.9
Italy	21.0	5.0	115.3	9.4
Japan	565.2	47.6	2399.0	65.4
United Kingdom	225.8	48.9	838.6	79.8
United States	1898.1	55.7	4757.9	78.8

Sources: Based on IFC Emerging Markets Data Bank and International Financial Statistics.

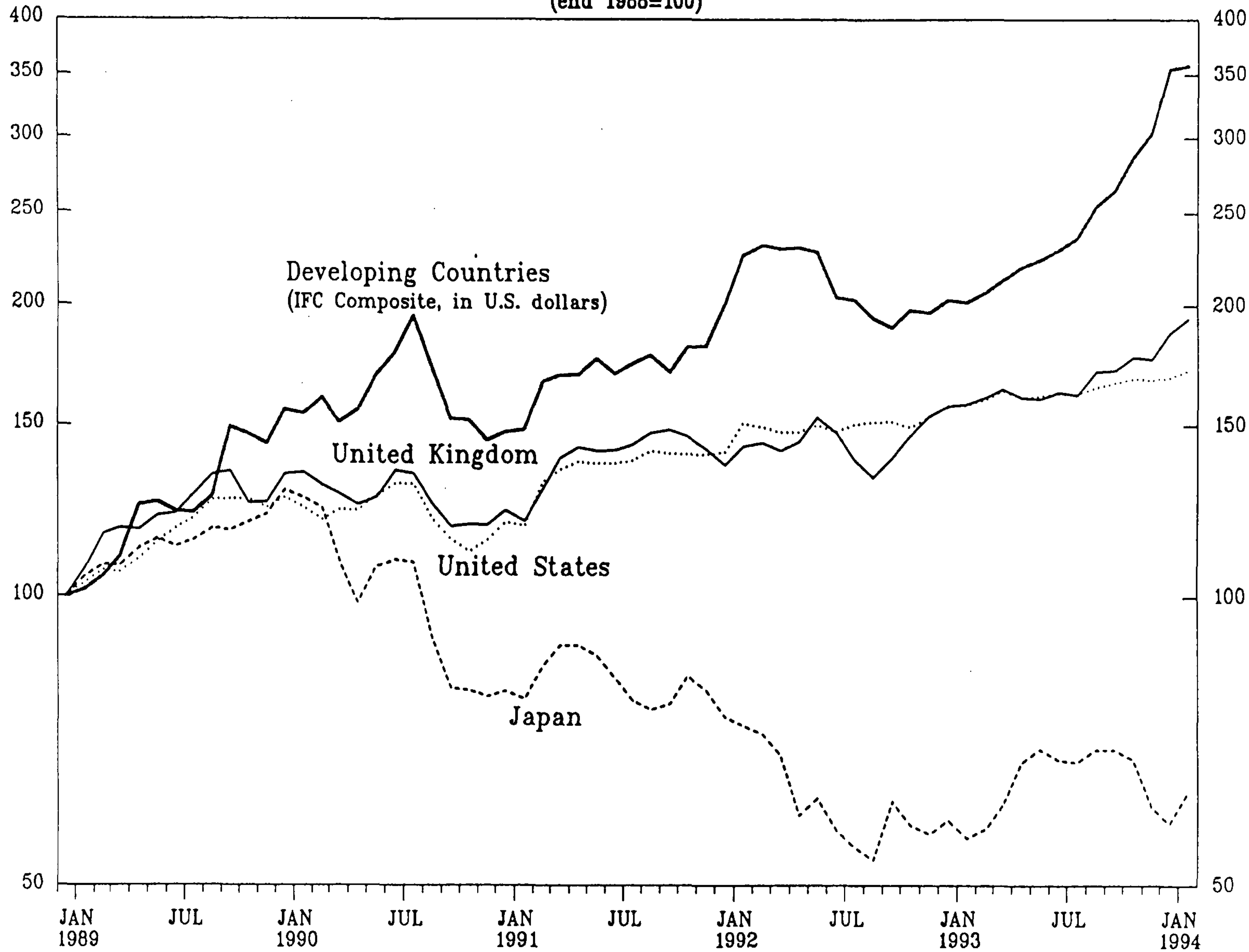
1/ Data are for end of period. "--" indicates capitalization less tha US$ 10 million; "na" indicates data not available.

Their combined capitalization--the market value of the equity of firms quoted on the stock markets--has increased dramatically during the last decade, from under a hundred billion U.S. dollars at the end of 1983, to nearly one trillion U.S. dollars by end-October 1993. This compares with an increase in the combined capitalization of industrial-country markets over the same period from three trillion U.S. dollars to ten trillion U.S. dollars. While the markets in the United States, the United Kingdom and Japan are still significantly larger, the capitalization in some of the emerging markets is now approaching that in many of the industrial countries. Expressed as ratio to GDP, market capitalization in Chile, Hong Kong, Malaysia and Singapore is similar to, or exceeds that in the United Kingdom or the United States.

While the increase in capitalization includes the increase due to new listings, it mainly reflects large increases in prices in recent years, which have exceeded markedly price increases in industrial countries (Chart 1). There are, of course, considerable differences, noted below, between developing country regions (Chart 2), and between countries within regions. Nevertheless as Table 2 shows, many of these markets have exhibited remarkable performance since the mid-1980s. In U.S. dollar terms, the markets in Chile, Mexico and the Philippines have increased over twenty-fold during the last decade. But, as Table 2 also illustrates, these markets have tended to be quite volatile over the last decade, although there have been considerable differences across countries.

The increase in equity prices has gone hand-in-hand with a sharp increase in trading activity in many of the emerging markets. For instance, the value of equity shares traded soared in Taiwan Province of China, increasing from under US$10 billion in 1983 to over US$240 billion in 1992, and increased by twenty-fold or more in Argentina, Hong Kong, Korea, Mexico and Thailand. This compares with a roughly four-fold increase in trading activity in the industrial country markets over the same period. The most

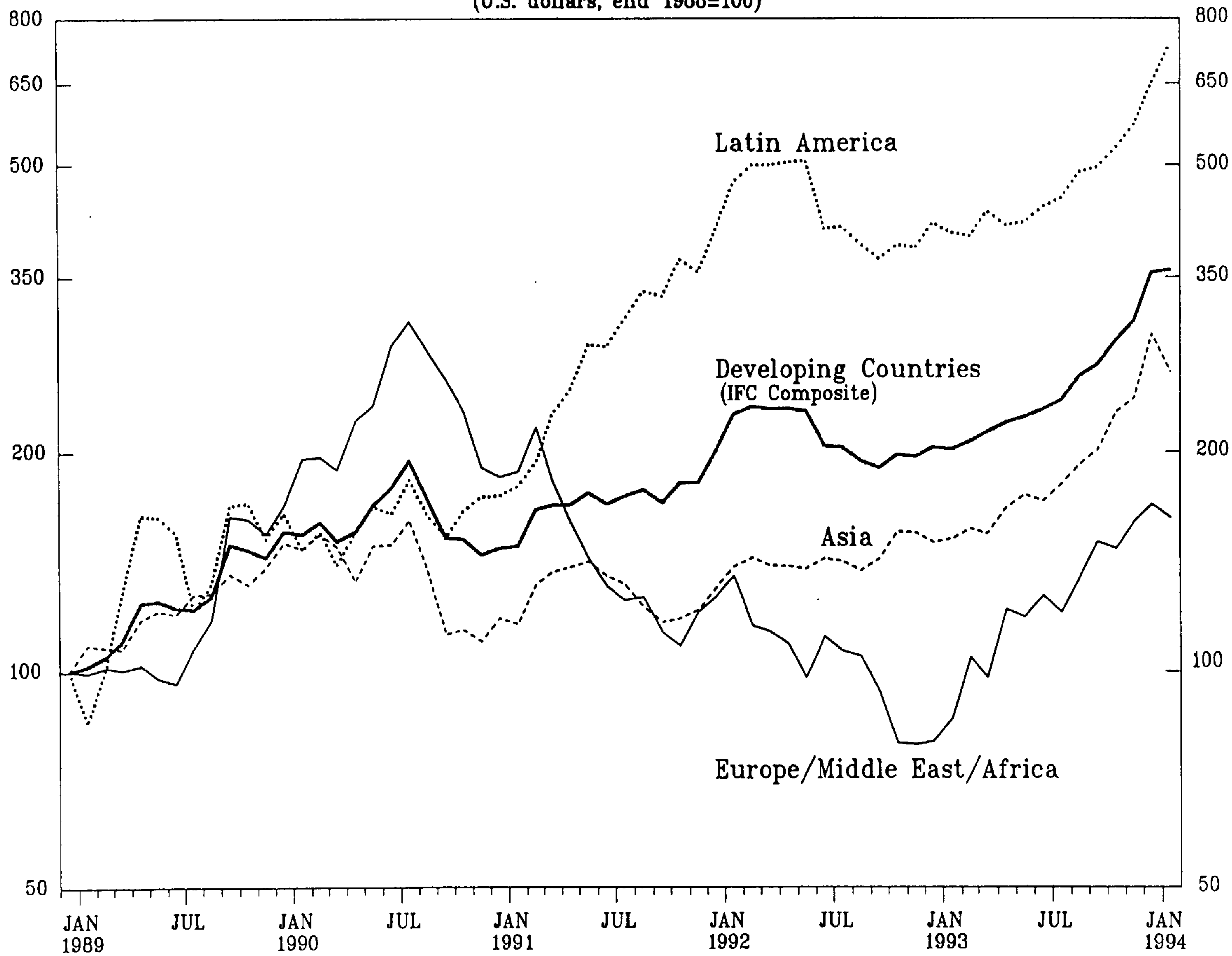
Chart 1. Equity Prices in Developing and Industrial Countries
(end 1988=100)



Source: IFC, Bloomberg Incorporated.

Chart 2. Equity Prices in Developing Country Regions

(U.S. dollars, end 1988=100)



Source: IFC.

Table 2. Stock Prices in Emerging Markets
(percent change in U.S. dollars) 1/

Market	1984-93	1984-87	1987-90	1990-93	1992-93
Latin America					
Argentina	1502.6	37.2	95.1	498.7	67.3
Brazil	93.4	-54.2	-9.8	368.3	91.3
Chile	2215.8	286.3	117.1	176.1	29.5
Colombia	1371.6	178.1	7.8	390.7	31.7
Mexico	2601.9	82.2	317.6	255.1	46.2
Venezuela	306.5	64.4	235.6	-26.3	-10.5
East Asia					
Hong Kong	890.7	91.8	31.3	293.1	115.7
Korea	407.7	197.6	62.4	5.0	20.6
Philippines	3635.3	812.8	-4.7	329.2	132.2
Taiwan, China	743.3	239.9	86.0	33.4	86.9
South Asia					
India	305.1	54.8	57.2	66.4	17.0
Indonesia 2/	20.5	na	-1.1	21.8	109.2
Malaysia	274.7	-9.1	51.5	172.1	99.5
Pakistan	318.6	22.5	7.9	216.6	52.4
Thailand	1092.9	90.9	99.6	213.0	97.0
Europe/Mideast/Africa					
Greece	239.2	206.8	82.5	-39.4	16.1
Jordan	56.0	25.0	-19.4	54.9	20.8
Nigeria 3/	-72.2	-68.0	33.8	-35.0	-16.5
Portugal 4/	464.4	744.0	-33.0	-0.1	30.9
Turkey 4/	377.1	240.5	76.6	-20.7	213.7
Zimbabwe	337.3	328.4	163.9	-61.3	122.3

Source: Computed from IFC Emerging Stock Market Factbooks. "na" indicates data not available.

1/ On an end-of-period basis.
2/ Data for 1987-90 and 1984-93 are for 1989-90 and 1989-93 respectively.
3/ Data are up to November 1993.
4/ Data for 1984-87 and 1984-93 are for 1986-87 and 1986-93 respectively.

active stocks in several of the emerging markets now appear to be as liquid as the issues of a typical firm listed in an industrial country. 1/

Looking at other features of the markets in the various countries indicates considerable variation in terms of the number of listed companies, number of new listings per year, market capitalization, total funds raised, and value traded. These differences in turn reflect differences across countries in the characteristics of the economic, market and financial environment: the role and size of the private sector; access to the market by external investors; the role of alternative sources of financing; the institutional setting including supervision, and clearing and settlement arrangements; and the legislative and regulatory framework, including restrictions on insider trading. In addition, the characteristics of information flows, reflecting disclosure requirements, accounting standards, the existence of credit-rating institutions and external auditing have an important bearing on the development and operations of these markets. In the most mature markets, such as the well-functioning ones of several large industrial countries, liquidity and trading activity tend to be very high, and market breadth is substantial, with the role and size of the private sector looming large in the economy. In addition, information tends to be widely available and reporting and disclosure standards are high. The institutional setting is conducive to broad-based investor confidence and competitive trading.

Against this yardstick, the emerging markets are divided below into four groups. These groups are admittedly impressionistic, rather than rigid classifications, with some overlap in them. Moreover, over time, equity markets in the various countries would move into the more developed groupings as they mature (see, Papaioannou and Duke 1993). The objective

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1/ Liquidity can be taken to mean the ability to move in and out of the market with low transaction costs. Transaction costs in this context include the ease and speed associated with buying and selling equity shares as well as the ability to transact at prices that are known reasonably well in advance.

here is simply to try and provide a rough perspective on how the characteristics and operations of various markets can differ.

The first group consists of countries with markets in early stages of development with very few quoted companies, small capitalization, high concentration, low liquidity, high volatility, and a comparatively rudimentary institutional setting. This group, at present, would include several markets in Africa, such as those in Cote d'Ivoire, Kenya and Zimbabwe, and in Eastern Europe including Poland and Hungary. 1/

In the second group, market liquidity increases, a wide variety of companies are quoted, and foreign investors begin to realize the diversification benefits of investing in such markets. While markets are still small in relation to the economy, the corporate sector has begun to rely increasingly on equity financing. The equity markets in Brazil, China, Colombia, India, Morocco, Pakistan, and the Philippines may be considered to be in this second group.

In the third group, market returns are less volatile, volume of issuance and trading activity increase rapidly, capitalization expands considerably, and interest in developing risk transfer mechanisms such as equity and currency hedging instruments begins to increase. These markets include Argentina, Indonesia, Malaysia and Thailand.

Finally, Hong Kong, Korea, Mexico, Singapore, and Taiwan Province of China may be regarded as mature markets in that liquidity and trading activity is very high, market breadth is substantial, and equity risk premia--risk adjusted returns relative to short-term money market interest rates--begin to move to internationally competitive levels. In several of

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1/ Newly established markets in the former Soviet Union (like Belarus and the Ukraine) are also put in this group, recognizing that there may be significant differences between the operations of these markets and others in the group.

these countries, markets would seem to have reached a stage where they can provide a barometer of domestic economic conditions, and also a measure of the degree of confidence by the world community. However, as movements in equity prices can also be the result of small shifts in industrial country portfolios, such movements need to be interpreted with a degree of caution. 1/ Furthermore, as in industrial countries, speculative bubbles, market manipulation, or restrictions on trading activity that result in inefficient pricing in emerging markets can significantly distort the relationship between equity price movements and the underlying fundamentals.

III. Determinants of Market Growth

A basic factor contributing to the growth of the emerging equity markets has been the beneficial effects of a broad range of macroeconomic and structural reform policies which many of these countries have implemented in recent years. 2/ As a result, domestic demand, exports, and corporate profits have all increased sharply. Furthermore, declining fiscal deficits and inflation, realistic and stable exchange rates, and other improved economic incentives--several Latin American countries are good examples--have provided an environment in which the private sector has begun to flourish, and confidence in economic prospects has been boosted. While the increase in the size of domestic equity markets reflects the improved prospects, another sign of confidence in these economies has been the sharp increase in the inflow of foreign capital. Non-bank capital flows to developing countries are at an all time high, with dramatic increases in foreign direct investment, as well as in bond and equity flows. 3/ At the same time, basic improvements in technology and communications have spread

1/ These shifts, even if small from the standpoint of the investing countries, may result in inflows and outflows which are rather large in relation to the size of the recipient equity markets.

2/ The World Economic Outlook, October 1992, highlights important aspects of stabilization and structural reform policies in several developing countries.

3/ As discussed in Section IV, benefits from portfolio diversification are also a factor behind these inflows.

worldwide, further helping to propel markets in many developing countries.

There is some systematic evidence of a correlation between cumulative equity returns and economic fundamentals. For instance, Mullin (1993) finds a statistically significant cross-country relationship between equity returns and export growth rates, and equity returns and growth rates of dividends per share, for a number of large developing countries over the period 1976-91. 1/ This study also suggests that the outstanding return performances registered by several of these countries surpass levels that can be explained solely by measures of performance and risk. 2/ These findings are not inconsistent with the possibility of speculative bubbles (discussed in Sections IV below). However, other evidence would also suggest the importance of basic structural improvements in the operations of the financial sector, and of equity markets, in boosting investor demand, and therefore equity prices.

Indeed, the country experience suggests that specific measures taken to improve the institutional setting have boosted investor confidence and added to market growth (see IMF (1993)). For example, many countries including Argentina, Chile, India, Korea and Mexico, have eliminated or reduced restrictions on foreign holdings, and improved settlement and clearance procedures. At the same time, a tightening of the regulatory environment, for instance by increasing disclosure requirements, especially for new listings, together with reduced taxes and fees on transactions, have played

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1/ This result is based on an analysis of a group of major developing countries composed of Argentina, Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan Province of China, and Thailand using panel data (breaking each country's export growth performance and equity returns over 1976-91 into four four-year periods).

2/ In a cross-country regression, Mullin regresses mean annual returns against cumulative growth rates for exports and dividends per share, as well as a commonly used measure of risk (beta coefficients). The fitted regression errors tend to be positive among the developing countries and negative among the developed countries. In addition, the coefficient on an added dummy variable for developing countries is positive and statistically significant.

a key role in encouraging market development. In the last few years, several countries have also lowered or removed altogether dividend taxes or capital gains taxes. 1/ Improvements in the institutional setting have been crucial for broadening the investor base by helping to avoid the kinds of problems that have deterred both domestic and foreign investors from participating in these markets. In this regard, it is generally acknowledged that improprieties, including market manipulation, and insider trading--which have been an element in the operations of several emerging markets--have in several cases been reduced considerably.

The privatization of state enterprises has in addition played a key role in boosting capitalization and stock market activity by expanding the supply of shares, many of them marketable internationally. Privatization itself has been part of a broader trend of disengagement from state-involvement in the economy, although it has also been undertaken because of tight budget constraints, which have limited new investments, and to reduce public debt. Malaysia's equity issuance peak of 1990, for example, coincided with the privatization of the state-owned telecom company. In Mexico, the recent acceleration in equity issuance has been fed by privatization. Privatization also has bestowed indirect benefits through a widening of the scope of the private sector, often inducing significant improvements in the efficiency of the privatized operations.

During the last three to four years, external factors have also played an important role in encouraging foreign capital to move into these markets, which further boosted trading activity and prices. In particular, the unusually low interest rates prevailing in the United States have attracted investors to the high yields available, in both fixed return and equity investments, in these economies (Calvo et al (1993)). 2/ In addition,

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1/ See International Finance Corporation (1993) for details.
2/ For an assessment of factors affecting capital inflows into Asian countries, see Bercuson and Koenig (1993). For a discussion of the broader issues related to developing country access to international capital markets, see El-Erian (1993, 1994).

external inflows can set up a virtuous cycle whereby efficiency of the domestic market is increased through contacts with foreign financial institutions, and importation of sophisticated financial technology, thereby attracting further flows. Moreover, increased familiarity with these markets and economies can in itself be an additional factor that stimulates foreign interest. It has been reported that the use of derivative instruments in a few of these markets has also allowed foreign investors the possiblility of hedging risks. 1/ But clearly had it not been for the domestic macro-economic policy reforms, an improved institutional framework, and the resulting heightened confidence in these markets, external factors by themselves would not have led to increased inflows. Additional factors which have attracted foreign inflows include a growing supply of new equity issues into the market, due in part to the privatization process, but also to high realized returns and improvements in the regulatory and tax environment.

While there seems to have been a structural shift in the international investment community's attitude toward investing in emerging markets, Tesar and Warner (1993) show that the increase in U.S. equity flows--the dominant source--has only been in proportion to the emerging markets' share of the global market capitalization value. 2/ That the share is not higher may reflect, in part, the fact that access to many emerging markets has remained difficult, with the consequence that the preferred vehicle for portfolio investment has been in the form of country funds which have in general traded at a significant premium to asset value. 3/ As these markets liberalize and develop, institutional investors are likely to continue to

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1/ Antecdotal evidence also indicates that positions have been taken on the volatility of equity prices by using derivative instruments.

2/ That is, of the fraction of the U.S. equity portfolio that is held in the form of international equities, roughly 12 percent is allocated to emerging stock markets, roughly their share in global capitalization.

3/ For a detailed analysis of the pricing behavior and diversification benefits of country funds see, for instance, Errunza et al (1993).

move away from funds to the kind of activity to which they are accustomed in industrial country markets, including direct equity purchases. 1/

IV. Benefits and Policy Concerns

These markets contribute to the mobilization of domestic saving by enhancing the set of financial instruments available to savers to diversify their portfolios. In doing so, they provide an important source of investment capital at relatively low cost (Dailami and Atkin 1990). The substitution of equity finance for debt finance reduces domestic firms' vulnerability to earnings' volatility or interest rate increases. Equity issuance has been a particularly important form of finance during the last decade, accounting for more than a third of the increase in large firms' net assets in Korea, Taiwan, Malaysia, Thailand, Chile and Mexico. As Singh and Hamid (1992) emphasize, this pattern of external finance contrasts sharply with the pattern for the industrial countries where equity financing has accounted for less than five percent of the growth in net assets.

More fundamentally, the limited availability of debt finance in many countries, including bank loans which may be limited to a select group of companies, can make equity finance highly attractive. This limitation can reflect, for example, endogenous constraints in credit markets, resulting from adverse selection and incentive problems. 2/ The constraints arise from the possibility that a bank's return from lending to a specific group of borrowers does not increase monotonically as the interest rate it charges to borrowers rises (see Stiglitz and Weiss (1981), and Cho (1986)). This

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1/ In the last three years equity flows have largely taken place through American and Global Depository Receipts, country funds, followed by direct purchases and foreign country offerings (see Claessens and Rhee 1993). Depository receipts are receipts issued by financial intermediaries in industrial countries against shares held in custody by these intermediaries in the developing countries.

2/ These constraints have been analyzed at length in the literature on financial liberalization in developing countries. See, for example, Mirakhor and Villanueva (1989), and Villanueva (1991).

can be so for two reasons: first, the adverse selection effect--higher interest rates discourage the safe borrowers which the banks prefer; second, the incentive effect--when borrowers are free to choose the projects for which the borrowed funds are to be used, they may tend to favor those with higher return and higher risk, raising the probability of default when the interest rate is increased. 1/ These two effects could discourage banks from raising their interest rates in response to an excess demand for credit, and decide instead to ration credit, but at a lower interest rate.

This type of behavior has the implication that banks may avoid financing new, productive borrowers even though the banks are free from interest rate ceilings. The difficulty that new productive customers have in obtaining finance from banks comes essentially from the fixed-fee contract nature of bank loans, where the borrower's obligations are fixed regardless of the outcome (Stiglitz (1991), and Diamond (1991)). This results in borrowers being mainly concerned with the upper tail of the distribution of investment outcomes ,i.e., projects with higher expected returns even if greater risks are attached to them. Lenders, meanwhile, are concerned only with the lower tail of the distribution, i.e., whether low return projects, irrespective of the lower risks attached to them, generate sufficient returns to service the loan. Under this situation, banks may totally avoid lending to specific groups unless they have information that enables them to rank each borrower and charge appropriate interest rates according to each borrower's riskiness so that they can ensure a profitable expected return. Acquiring information on the different risk characteristics of different customers can be a costly process, or even

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1/ In countries where there is a shortage of managerial talent, individual managers are less likely to suffer adverse consequences on their reputations, and future employment and earnings prospects, from having taken on riskier projects that failed. In this way, there would seem to be stronger incentives to take on higher-return-but-higher-risk projects in situations with relatively less stringent consequences on reputation.

impossible in some circumstances. The result is a market failure resulting from imperfect information. 1/

In addition to the mobilization of capital, the continuous valuation of share prices inherent in well-functioning equity markets, and the implied possibility of mergers and takeovers, can impose discipline on the behavior of firms, and lead to a more efficient allocation of capital. Similarly, by being able to effect changes in quoted companies' management, equity markets can enhance the efficiency with which managerial resources are used. While the incentive to monitor the firms may be limited and the takeover mechanism not very effective with broadly dispersed shareholdings, in many developing countries equity ownership is sufficiently concentrated to lead to the emergence of large shareholders who would find it beneficial to exercise effective scrutiny over managerial actions. 2/ For instance, in a majority of the markets, over a third of the capitalization is accounted for by the ten largest stocks (International Finance Corporation (1993)).

At the macroeconomic level, as the experience of the last three years has shown, equity markets act as a conduit for foreign saving. External equity finance can help these countries avoid the excessive reliance on debt accumulation that can render them vulnerable to international interest rate increases and associated increases in debt-service payments. Allowing

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1/ It can, of course, be recognized that this section of the paper describes situations outside the realm of Modigliani-Miller (MM) models in which, under a specified set of assumptions, the value of a firm and its cost of capital are unaffected by its financing mix between debt and equity. MM assumes, inter alia, that capital markets are perfect, business risk can be measured, and all investors have identical expectations about future earnings. The MM-type world clearly doesn't hold under the conditions being discussed in this section of the paper.

2/ The issue here revolves around the "free-rider" problem: If individuals hold a tiny slice of the equity of any one firm, it gives them little incentive to incur the costs of monitoring management--since most of the benefit of their monitoring would accrue to other shareholders. For a discussion of the role of the takeover mechanism in enforcing managerial discipline, and how it too depends on dispersion of equity holdings, see Kumar (1984), and Shleifer and Vishny (1986).

dividend payments and equity prices to adjust instead also involves risk sharing with foreign investors. Moreover, inflows of equity finance bring improved accounting and reporting standards in their wake, and may increase exposure to advanced supervisory and managerial techniques prevalent in the source country.

From a global perspective, as capital is channelled to areas yielding the highest returns, there is a net gain to the world economy. Of course, investors in industrial countries at this stage may also benefit from a diversification of their portfolios, since these markets do not appear to be highly correlated with the markets in industrial countries. Indeed, as Table 3 illustrates, several of the large developing country markets have low or negative correlation with markets in the United States, the United Kingdom, or Japan. 1/

There is considerable empirical evidence on the extent to which these markets are playing a role in allocating capital to the corporate sector, and on their beneficial effects for the rest of the economy. Although the structure of corporate finance varies widely among the developing countries, the use of equity finance by the corporate sector has been very significant. During the 1980s, as a share of net investment expenditures, equity funds exceeded debt finance, or internally generated funds, in countries like Korea, Mexico, Thailand and Turkey (Singh and Hamid (1992)). As Mayer (1989) shows, this pattern contrasts sharply with the corporate finance pattern in industrial countries, which in general rely much more on internally generated funds. However, Mullin (1993) suggests that firms in industrial countries relied much more heavily on external finance at an earlier stage in their development. In this respect, it could be argued

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1/ The advantages of diversification may, however, be overstated to the extent that the observed low correlations reflect speculative bubbles in some of the emerging markets.

Table 3. Correlation among Industrial and Developing Country Stock Prices 1/
(December 1988 - June 1993)

	United States	United Kingdom	Japan	Brazil	India	Korea	Malaysia	Mexico	Taiwan Prov. of China	Thailand
United States	1.0									
United Kingdom	0.59	1.0								
Japan	0.29	0.50	1.0							
Brazil (8.9)	0.19	0.04	0.16	1.0						
India (6.9)	0.09	-0.59	-0.72	0.26	1.0					
Korea (14.0)	-0.14	-0.12	0.15	-0.40	-0.36	1.0				
Malaysia (14.0)	0.47	0.42	0.49	0.08	-0.21	0.24	1.0			
Mexico (15.3)	0.39	0.10	0.18	0.12	-0.51	0.28	0.33	1.0		
Taiwan Province of China (14.3)	0.06	0.10	0.25	0.26	-0.49	0.03	0.31	0.05	1.0	
Thailand (7.3)	0.39	0.15	0.17	0.06	0.58	0.10	0.53	0.25	0.11	1.0

Source: Based on International Finance Corporation's Price Indexes in US dollars.

1/ Numbers in brackets underneath developing country names show the share of developing country market capitalization (in IFC's list of emerging markets) accounted for by each country at end-June 1993.

that the developing country corporate financing pattern is now following a similar evolutionary path. 1/

Despite this empirical evidence of the benefits of equity markets, a number of legitimate concerns have been expressed about the growth of these markets, and what it might entail for the rest of the economy. A common concern is about the volatility in prices, especially if it spills over into the real economy, although this spillover is less of a concern when the market is relatively small. Of course, as markets develop, and liquidity and frequency of trading increase, new information is reflected in prices more quickly, and observed volatility may actually appear to increase. But this is simply an indication of the market becoming informationally more efficient. The concern rather is that the volatility can be in some sense "excessive" and this concern is buttressed by the evidence that even in industrial countries measures of stock price volatility appear to have been too high to be attributed to new information about future real dividends, or movements in expected real interest rates (Shiller (1981), Summers (1986) and Flood (1993)).

It is certainly the case that for a number of developing countries, studies have found rather high volatility, and pricing inefficiencies in the sense of high first order serial correlation in stock prices (Errunza and Losq (1985), Darrat and Mukherjee (1987), and Kapur and Ravallion (1988)). Positive serial correlation may reflect slow incorporation of new information, insider dealing, or infrequent trading. Although it is a legitimate concern, high volatility may also be the result of the thinness

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1/ A few studies have also examined the relationship between stock market development and economic growth, and found a significant effect. For instance, for a sample of 40 industrial and developing countries, Atje and Jovanovic (1993) found that the higher the ratio of all stock market trades to GDP, the higher the growth of per capita income. Value of trades is regarded as more appropriate than capitalization because in some countries like Jordan, in spite of high capitalization, little trading takes place and the stock market seems to play a limited role in allocating funds.

of trading in some markets, and as these markets broaden and deepen further, the volatility can be expected to diminish.

In addition to the short-term volatility, there is a much more important concern that marked increases in equity prices in developing countries may be the result of speculative bubbles. (A bubble exists if the reason that the asset price is high today is <u>only</u> because investors believe that the selling price will be high tomorrow; i.e., when fundamentals do not seem to justify such a price (see Stiglitz 1990)). In this situation, prices can increase for considerable lengths of time relative to the levels warranted by economic fundamentals, only to fall sharply upon abrupt changes in market sentiment. These bubbles may, of course, be driven by domestic or external demand, or a combination of the two. In the case of external demand, the size of the inflows can be large relative to market capitalization and hence the potential for bubbles may be increased.

While there is a significant literature on the extent to which equity prices represent "fundamental values" rather than "bubbles", it is not clear whether developing and industrial countries differ in this regard. Work by Ekechi (1990) suggests, for instance, that in the two years before the October 1987 world-wide collapse of stock prices, in many developing country markets there was a positive bubble premium--the expected extra return when no crash occurs--which was no higher than the premium in the United States or the Japanese markets.

Even if there is no bubble as such, there is a concern that were the fundamentals--including forecasts of corporate earnings and international interest rates, or equity capital inflows--to change relatively quickly, this could lead to an abrupt market correction. The effect of such a correction, or simply of a bubble collapse, on the real economy, especially if a wider range of asset prices were affected, can be considerable, and of much greater significance than the effects of price volatility alone. Moreover, as the experience of several industrial countries has shown, a sharp downturn in asset prices can have significant adverse effects on the banking sector, which can compound the confidence and wealth effects, and lead to a retrenchment in consumption and investment spending (see, for instance, Schinasi and Hargraves (1993)).

The concern for bubbles has been particularly marked over the last few years in light of the sharp rise in equity prices in these markets. At least one interpretation of the price-earnings ratios for these markets would suggest, however, that the possibility of a bubble may have been limited. This is because there has been a concomitant sharp increase in earnings so that until very recently, the price-earnings ratios have not increased markedly. Although differences in accounting standards, corporate capital structures and legal requirements make cross-country comparisons of price-earnings ratios difficult, nevertheless, abstracting from the recent rises in several countries, these ratios have not generally tended to be significantly higher than those in industrial countries (see Table 4).

More recently, for instance in the last six months of 1993, the price-earnings ratios for several of the emerging markets have increased rapidly, by 50 percent or more. Furthermore, price volatility early in 1994 and the recent sharp drop in equity prices further draw into question the sustainability of equity prices in these markets. While this does not necessarily imply the existence of speculative bubbles, these developments warrant some concern about stock market activity--and the domestic and external sources of risks to such markets. 1/

The potential benefits from developing equity markets also need to be judged against the opportunity costs of promoting these markets. Indeed, it has been suggested that devoting scarce resources to developing these

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1/ For a discussion of this issue in the case of Hong Kong, see Kumar (1994). From a historical perspective, it is worth recalling the experience of several Latin American countries in the late 1970s and early 1980s when a sharp run up in equity prices was followed by a precipitous decline (see Calvo et al (1992)).

Table 4. Price-Earnings Ratios
(End-of-Period)

	1989	1992	1993 June	1993 Dec.
Latin America				
Argentina	22.1	38.0	32.4	41.5
Chile	5.8	13.0	15.8	20.0
Colombia	7.0	28.0	21.9	25.5
Mexico	10.7	12.3	12.4	19.4
Venezuela	6.4	15.6	18.6	17.4
East Asia				
Hong Kong	10.8	13.6	15.6	22.6
Korea	38.6	21.4	23.9	25.1
Philippines	18.5	14.1	17.1	38.7
Taiwan Province of China	51.2	16.6	20.4	34.7
South Asia				
India	18.3	33.7	27.4	39.7
Malaysia	30.8	21.8	25.7	43.5
Pakistan	8.4	21.9	17.7	27.6
Thailand	23.1	13.9	14.4	27.5
Europe/Middle East/Africa				
Greece	24.3	6.9	8.0	10.2
Jordan	14.9	14.5	18.6	18.0
Nigeria	7.0	9.0	9.8	7.3 1/
Turkey	17.6	7.0	17.8	36.3
Zimbabwe	7.0	2.0	3.0	8.8
Largest Industrial Countries				
France	12.5	15.8	19.5	27.5
Germany	17.8	14.3	20.3	29.1
Japan	51.9	38.9	60.7	67.8
United Kingdom	11.7	19.7	21.0	20.7
United States	14.1	22.7	22.5	22.1

Source: IFC, and Bloomberg Inc.

1/ Data are for November 1993.

markets may even be inappropriate for countries in early stages of development in the absence of an adequate financial infrastructure, such as a well-functioning clearing and payments system (see, for instance, Frankel (1993)). It is worth noting in this regard that supporting services from the banking system contribute importantly to market development and provide credit to market participants to support equity trading and settlement. Also, banks may be direct participants in securities markets themselves. 1/ Because of this, several authors have emphasized that liquid interbank markets, supported by an efficient payment system, are an important institution for the development of securities markets (Brainard (1991) and Blommestein and Spencer (1993)). Conversely, a weak banking system in need of restructuring and recapitalization, and related mechanisms for clearing and settlement of wholesale payments and securities transactions that are inefficient or ineffective, can constrain the development of securities markets. Efforts to develop equity markets in the face of less than adequate market infrastructure could impose undue risks both on equity trading itself, and more generally on the financial system because of possible spillover effects.

Furthermore, it has been argued that an economic system based on equity finance may be at a competitive disadvantage relative to a bank-based system. This is because equity-based systems can discourage long-term, necessarily somewhat riskier, investments, as firms become preoccupied with short-term financial returns to satisfy shareholders, and to avoid possible takeovers. This may be the case, but recourse to equity financing does not preclude equity stakeholders, including financial groups, from playing an active and long-term role in corporate management. Hence, this type of consideration does not <u>necessarily</u> imply that countries should discourage the development of equity markets. It is also argued that close ties between industrial firms and banks--which could be discouraged in the presence of equity markets--may lessen constraints on an individual firm's

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1/ See Blommestein and Spencer (1993) for an overview of the importance of the banking system in the development of securities markets.

investment decisions. This concern needs to be balanced against the cost of reducing the economy-wide mobility of productive resources.

The above discussion suggests that the advantages of equity markets are not in question. There is, however, less consensus on the speed with which these markets should be developed in countries in early stages of development or in the transition from a centrally-planned system to a market-based system, particularly in regard to the extent to which equity market development must wait on banking system reforms. 1/ There would, however, seem to be little controversy in saying that equity markets function better, and the potential benefits are better captured, when an appropriate institutional framework is in place.

V. Improving Efficiency of Equity Markets

While the operations of equity markets in developing countries have become significantly more efficient, there is still room for further improvement. There continue to be considerable informational inadequacies in many emerging markets, especially those in groups one and two noted earlier. There are often significant barriers to the dissemination of information, and companies appear to divulge less information with a greater time lag than is the norm in developed markets. Most of the developing equity markets lack substantial breadth, in the sense that trading values decrease substantially outside the small set of stocks--usually under 20--with high trading values, with many stocks hardly ever trading. For instance, even in markets as developed as those in Hong Kong and Mexico, 10 stocks have accounted for nearly half of the turnover on the entire market.

1/ Cho (1986) makes the theoretical case for the need to foster equity markets as part of a comprehensive financial liberalization strategy when credit markets are characterized by imperfect information. He does so, however, under the implicit assumption that equity markets are well functioning.

Moreover, while it is generally recognized that a certain volume of speculation is needed to maintain market liquidity and efficient pricing, excessive speculation or trading on inside information can be destabilizing and therefore disruptive to market development. This is particularly important in countries which continue to have regulated financial systems, with controls on interest rates as well as on the allocation of credit (see Dailami and Atkin (1990)). With a regulated financial system, a liberalized stock market can act as a conduit for speculative pressures which would otherwise be released elsewhere. This suggests that efficient stock market development would need to be accompanied by financial sector liberalization. More generally, in the wake of the development of these markets, it is important that countries continue to follow prudent macroeconomic policies. Financial instability creates uncertainty which can seriously impair market efficiency, and lead to significant instability.

A number of specific measures can be undertaken to further increase the liquidity of these markets, reduce transactions costs, and improve pricing efficiency in the markets. These measures include the institution of legal provisions to prohibit insider trading and the means to enforce them, an improvement in accounting and reporting standards, and a simplification of procedures for listing new firms. An increase in audited corporate financial information conforming to the standards of generally accepted accounting principles is also essential. Moreover, improvements in the tax systems, financial infrastructure and laws ensuring that private contracts are honored can further enhance the efficiency of these markets 1/.

The regulatory environment is, of course, particularly important for countries wanting to link their markets into the international financial system. Without effective regulation and its enforcement, domestic or

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1/ See Demirguc-Kunt et al (1993) for an analysis of the significance of non-resident taxation in determining equity costs in emerging markets. They show that capital gains taxes on non-residents significantly increase required pre-tax equity returns.

international investors will not have the confidence to commit resources to these markets. However, regulation should be confined to that needed to correct market failures that arise in unregulated markets and should not impede the development of the market. It is easy to go overboard. Rules and regulations can become so stringent as to stifle private initiative and discourage companies from going public. The challenge thus is to attain a balance between a system that assures adequate protection for investors and one that does not deter market growth.

The regulatory regime should focus on three main areas: the new issues market and related disclosure, accounting and listing standards; secondary market trading activities including market surveillance and enforcement; and, the regulation of market practitioners through registration and prudential standards (Chuppe and Atkin (1992)). The needs for developing the appropriate regulatory safeguards is most pronounced in the former centrally planned economies. Here the basic prerequisites for equity markets--private property rights, adequate accounting systems, etc.--must be fully established along with appropriate regulatory safeguards.

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