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Emerging Equity Markets in Middle Eastern Countries

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ABSTRACT

Within a broad framework for analyzing portfolio capital flows to developing countries, the paper undertakes a comparative analysis of equity markets in six Middle Eastern countries. The analysis, based primarily on a range of quantitative indicators, identifies the principal characteristics of these markets, including relative to international comparators, and examines associated structural features. This, along with an analysis of the informational efficiency of selected markets in the region, provides a basis for the subsequent review of policies for enhancing the role of equity markets in the macroeconomy of Middle Eastern countries.

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Contents

Summary

This paper analyzes the development of equity markets in selected Middle Eastern countries, evaluating their informational efficiency and potential direct and indirect benefits. It provides a basis for exploring policies that would enhance the markets' role in stimulating investment and growth.

The backdrop for the analysis is the internationalization and integration of capital markets and the related sharp increase in private portfolio flows to developing countries. The paper starts by examining the nature of capital flows to developing countries, particularly in Asia and Latin America, in the context of the evolution of the international debt strategy and the restoration of these countries' access to voluntary market financing. The sharp increase in flows to developing countries has given an added impetus to the growth and development of these markets, leading to significant increases in capitalization and trading activity.

The process of development of equity markets in the Middle East, as well as their integration with international capital markets, is less advanced in most of these countries compared with emerging markets in other regions. Appropriately, therefore, there is recognition in the Middle Eastern countries as to the need to broaden these markets. This recognition comes at a time of pressures on external aid flows, increased international competition for private capital, and an uncertain environment for the region's terms of trade.

The paper's analysis focuses on a sample of six countries consisting of relatively active markets (Jordan and Turkey), an established but less active market (Egypt), and more recently established markets (Iran, Morocco, and Tunisia). It is based primarily on a range of quantitative indicators, including market capitalization and concentration, price earnings ratios, price volatility, and the extent of correlation with industrial country markets. It also identifies the main differences within the selected set of markets and relative to international comparators and examines the associated structural factors.

The paper notes that while there are significant differences across these countries in the importance and characteristics of equity markets, in general the supply of equities remains limited both in absolute terms and relative to the size of the economies. The factors affecting the supply constraint are analyzed. A quantitative analysis of the efficiency of selected markets in the region, and a comparison of the efficiency of these markets with a number of other emerging markets, is also undertaken. Taking all statistical results together, the paper concludes that the informational efficiency of the Jordanian and Turkish markets is not very different from that of other emerging markets.

I. Introduction

Several developing countries have succeeded in recent years in attracting considerable external private inflows--thereby providing an important supplement to domestic savings in financing productive investment activities. When compared to other episodes of large private capital flows to developing countries in the last 20 years, the phenomenon differs in one basic aspect: the dominant role of foreign portfolio flows as opposed to bank financing. Indeed, it has been part of a broader process of internationalization and integration of capital markets. Overall, this process has contributed to large voluntary financial flows from industrial to several developing countries, a surge in some developing countries' placement of equities in industrial country markets, and increased institutional linkages--including mergers and strategic alliances--between financial firms in industrial and developing countries.

The process of development of equity markets and their integration with international capital markets is less advanced in most Middle Eastern countries, especially when compared to economies in Latin America and Asia. Yet capital markets provide an important instrument for mobilizing resources--from domestic, regional and international sources--and allocating them to productive investments. The need to exploit the potential offered by capital markets assumes greater importance in view of the possibility of downward pressures on development assistance to the capital-scarce countries in the region, as well as greater international competition for foreign direct investment. It is also consistent with the emphasis that is being placed increasingly in the region on the private sector as the main engine for investment and growth.

The aim of this paper is to review the status and role of equity markets in selected Middle Eastern countries. To this end, the paper explores the potential benefits of these markets--both direct and indirect. These include the availability of a larger pool of investible capital, as well as positive externalities in the form of enhanced access to market-based hedging instruments, larger foreign direct investment inflows, and expanded export market opportunities. Attention is also drawn to the implications for economic and financial policies, including the challenges associated with capital market integration with industrial countries.

The paper's analysis is organized as follows: Following the introduction, Section II develops a broad framework for interpreting the current phase of private flows to developing countries. Within this framework, Section III undertakes a comparative analysis of markets in six capital-scarce Middle Eastern countries (viz., Egypt, Iran, Jordan, Morocco, Tunisia and Turkey). 1/ The analysis is based primarily on a range of quantitative indicators including market capitalization and concentration, price earnings ratios, price volatility, and the extent of correlation with industrial country markets. It also identifies the main differences within the selected set of markets and relative to international comparators, and examines the associated structural factors. This is followed in Section IV by a quantitative analysis of the efficiency of selected markets in the region. Given the severe data limitations, the discussion in these two sections must be viewed as tentative at this stage. Nevertheless, it provides a basis for the subsequent review of policies for enhancing the role of equity markets in the macro-economy of Middle Eastern countries (Section V). The paper concludes with a summary of the main findings.

II. The Process of Capital Market Internationalization and Developing Countries

Foreign capital provides a supplement to domestic savings for financing productive investment activities. As such, appropriate use of foreign capital has the potential to enhance growth and development. Foreign capital may be deemed to be used efficiently if it is associated with activities whose rate of return equals or exceeds the annual cost of "servicing" the inflows. The fulfillment of this condition requires the satisfaction of two related criteria--yield and transfer. The yield criterion refers to the return obtained on the financed activities, whereas the transfer criterion refers to the ability to transform the returns into foreign exchange to meet the contractual obligations. Meeting these two related criteria implies that the foreign exchange equivalent of the marginal return on the borrowed funds exceeds the value of the servicing. Nonfulfillment of these criteria results in the debt servicing capacity falling short of debt servicing obligations, leading to liquidity and/or solvency problems.

Over time, the main sources of foreign capital available to developing countries have included commercial bank loans (voluntary and concerted), bonds, foreign direct and portfolio flows, and official bilateral and multilateral assistance. Notwithstanding this range of sources, certain types of flows have tended to dominate in particular periods--particularly in the case of private flows. Indeed, as discussed below, the environment

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1/ In line with the coverage of the "Economic Research Forum," Turkey is included in the broad definition of "Middle Eastern countries." Other active regional equity markets include Bahrain, Kuwait, Israel, and Oman. Although there are no formal stock markets in Saudi Arabia and the United Arab Emirates, equity transactions take place through the banking system. The establishment of equity markets is under consideration in Lebanon, Sudan and Syria.

for external private inflows currently facing developing countries is dramatically different from that prevailing in the 1970s and 1980s. 1/

1. Background discussion on the nature of private flows to developing countries

In contrast to the 1990s, the external private financing environment faced by developing countries in the 1970s and 1980s was dominated by international commercial bank related activities. Specifically, the 1970s and early 1980s were characterized by large flows to developing countries in the form of voluntary commercial bank loans, mainly through syndications. These loans declined sharply with the onset of the debt crisis triggered by Mexico's August 1982 announcement that it was unable to meet scheduled debt service obligations. Several other developing countries followed suit.

The associated "debt crisis" reflected the growing imbalance between contractual obligations and countries' servicing capacity resulting from inappropriate domestic policies and unfavorable exogenous factors (including adverse terms of trade, higher international interest rates, and sluggish external demand conditions). These factors resulted in a decline in countries' ability to meet the related yield and transfer criteria. Developing countries' financial difficulties were compounded by the sharp reduction in new bank flows, and the related curtailment of access to other international private capital flows.

With the drying up of new voluntary flows to many developing countries in the early 1980s, the emphasis shifted to relaxing liquidity pressures through concerted financing from private creditors. 2/ This emphasis was part of the broader "international debt strategy" which sought to strike an appropriate balance between adjustment and financing while ensuring relatively equitable burden sharing among creditors. The key elements of the strategy were: (i) developing countries' implementation of adjustment programs aimed at restoring domestic and external financial stability; and (ii) provision of financial support by official bilateral and commercial bank creditors.

The provision of financial support from commercial banks initially took the form of rescheduling of principal obligations and concerted new money loans to refinance interest payments. While this approach was broadly successful in meeting developing countries' immediate liquidity needs and preserving the financial integrity of the international banking system, its sustainability was uncertain. Specifically, developing country growth performance remained sluggish while the mobilization of concerted bank loans

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1/ An historical overview of flows to developing countries, with emphasis on the late 19th century and first 30 years of the 20th century, is contained in Eichengreen and Lindert (1989).

2/ In several cases, this was in conjunction with lending by international financial institutions and rescheduling of official bilateral debt.

became more difficult as a result of weakening creditor cohesion and associated free rider problems. In recognition of these factors, the emphasis in the international debt strategy shifted away from liquidity support and toward more fundamental restructuring of contractual debt obligations (i.e., addressing solvency issues). A key notion underlying this move was the need to address "debt overhang" concerns as a precursor to developing countries re-establishing access to voluntary international capital market financing. 1/

In practical terms, this evolution in the international debt strategy was reflected in greater use of debt and debt service reduction instruments. Through a reduction in the contractual loan amount and/or interest rates, these instruments provided for a more fundamental restructuring of external liabilities consistent with both immediate liquidity considerations and longer term external solvency issues. As of the second half of last year, an estimated US$116 billion of developing country sovereign debt had been restructured under debt and debt service reduction operations, 2/ resulting in an estimated gross reduction in the present value of obligations amounting to some US$51 billion at a cost of US$18 billion. 3/

The use of debt and debt service reduction instruments was facilitated by developments in the secondary market for bank claims. The initial expansion in this market in the second half of the 1980s was due to three factors: banks swapping assets as a means of rationalizing their loan portfolios; purchases of debt claims for use in officially-sanctioned debt-equity conversion programs; and retirement by corporation own-debt at a discount. The sharp increase in market activity, however, followed official support for debt and debt service reduction operations under the "Brady Plan". 4/ These operations greatly expanded the liquidity of the market, including through the creation of new instruments (so-called "Brady bonds"). While reliable data are not available, rough estimates suggest that the size of the market grew from less than US$5 billion in 1985 to US$70 billion in 1990. It expanded further to around US$500 billion in 1992. 5/

1/ Dooley et. al. (1990) contains a useful discussion of the debt overhang concept.

2/ In 1994, Brazil finalized a commercial bank debt and debt service reduction package covering some US$50 billion of obligations.

3/ See Collyns and El-Erian (1993) who review the main lessons for developing countries from the experience to date with comprehensive debt and debt service reduction packages with commercial bank creditors. A discussion of the restructuring of official bilateral claims on developing countries is contained in Kuhn et al. (1994).

4/ A discussion of the origins and elements of the plan is contained in Griffith-Jones (1989).

5/ Based on estimates reported in Leipold et. al. (1991) and Collyns et. al. (1993).

Debt and debt service reduction operations also played a critical role in defining the nature of the subsequent private flows to developing countries. By alleviating concerns about debt overhang effects and reducing the risks of disruptions in creditor/debtor relations (and related adverse externalities affecting trade and payments pattern), this fundamental restructuring of debt liabilities was an important contributor to the success of the initial phases of developing countries' restoration of access to the broader range of voluntary market financing (viz., equity and bond financing). 1/

A second factor was the impact of domestic adjustment and reform policies on investors' perceptions of developing country risk. Indeed, this was the most important "pull factor" contributing to enhancing the profitability (in absolute terms) of investing in developing countries. Thus, while the specifics vary, the policies contributed to: (i) improved prospects for investment and sustained economic growth due to the implementation of structural reforms and reduced domestic and external financial imbalances; (ii) alleviation of private sector concerns about transfer risk as the reform of the exchange and external payments regimes provided greater assurances on the availability and pricing of foreign exchange; and (iii) opening up of domestic capital markets to foreign investors as part of the broader program of economic and financial liberalization.

It may be noted that appropriate macroeconomic policies proved essential not only for the initial phases of market opening and integration but also to minimize the potential adverse implications of surges in capital flows. Analysis of this issue has attracted growing attention recently. Most studies confirm that a prompt adjustment in macroeconomic policies and flexibility in the domestic cost and price structure hold the key to avoiding overheating and loss of competitiveness that may result from such surges. 2/

The third factor contributing to the market reentry of developing countries related to their ability to tailor financial instruments, particularly in the initial stages of the reentry. As illustrated by the experience of Latin American countries in particular, key aspects included: (i) the placement of an appropriate "benchmark" instrument on the basis of which subsequent issues were priced off; (ii) targeting specific markets or investor segments; and (iii) incorporating features that address particular credit risk concerns. Among the latter, several developing countries resorted to "credit enhancement techniques." Of such techniques, the most commonly used was that of collateralization which, by linking payments to a more secure source (e.g., receivables held in industrial countries) provided a means of reducing credit and transfer risks.

1/ This is discussed in El-Erian (1992).
2/ For example, Schadler et. al. (1993).

2. The role of international equity flows

Notwithstanding the return of voluntary flows to several developing countries, there is a marked difference with the earlier episode of the 1970s. Thus, while there has been some resumption of voluntary bank lending to developing countries, it is of limited quantitative importance. Specifically, voluntary bank lending flows to developing country "market re-entrants" amounted to only US$2.9 billion in 1990-92, compared to US$32 billion in the form of international bond and equity flows. 1/ The contrast is even more stark for 1993 when voluntary bank loans amounted to only US$0.5 billion in the first half of the year compared to US$14 billion for other flows.

The share of developing countries in total international bond issues in international markets rose from a negligible level in the 1980s to 2.7 percent in 1990 and 7.1 percent in 1992; it amounted to 8.7 percent in the first half of 1993 (Table 1). 2/ Similarly, the share of developing countries in global equity issuance rose from a negligible level in the 1980s to 15.5 percent in 1990 and 40.9 percent in 1992; it totalled 32.5 percent in the first half of 1993. In terms of contribution to total external capital flows to developing countries, the share of portfolio equity and bond financing rose from 3.1 percent in 1982-88 to 16.0 percent in 1992 (Table 2). This share varied considerably among developing country regions ranging from 28.8 percent for Central and South American countries to 3.3 percent for Africa.

Equity-related flows to developing countries have taken a number of forms. These include direct investor flows to equity markets in developing countries, purchases of developing market equities through pooling vehicles (such as country, regional and sector-specific mutual funds), and placement of developing country equities on industrial country markets. In some cases, the associated inflows were facilitated by the large pool of residents' capital previously held outside the developing countries. Indeed, "return flight capital" has tended to exhibit the most rapid response to improvements in countries' economic and financial situations. Also notable is the widening in the coverage of international equity flows in the last couple of years in terms of borrowers and sources of funds. Thus, the flows of funds to developing countries in the 1990s have been part of the broader process of internationalization and integration of capital markets. 3/ At

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1/ Collyns et. al. (1993).

2/ The process was facilitated by the increase in the number of developing countries being assigned credit ratings by the major and most market-credible rating agencies. As detailed in Collyns et. al (1993), eight countries received first time ratings in the 18-month period ending June 1993, of which five were "investment grades." This trend has facilitated flows from industrial country investors subject to internal restrictions or prudential regulations regarding ungraded instruments.

3/ See Goldstein et. al (1993).

Table 1. International Bond Issues by Developing Countries and Regions
(In millions of U.S. Dollars)

	1989	1990	1991	1992	First Half 1993
Developing countries and regions	5,487	6,164	12,428	23,526	21,718
Africa	159	90	236	725	--
Algeria	159	90	--	--	--
South Africa	--		236	725	--
Asia	1,601	1,630	3,000	5,846	5,430
China	--	--	115	1,289	1,057
Hong Kong	193	66	100	185	657
India	450	274	227	--	--
Indonesia	175	80	369	493	30
Malaysia	425	--	--	--	500
Philippines	--	--	--	--	345
Singapore	--	105	--	--	--
South Korea	258	1,105	2,012	3,208	2,014
Taiwan Province of China	100	--	160	60	36
Thailand	--	--	17	612	791
Europe	2,171	1,856	1,960	4,562	4,120
Bulgaria	101	--	--	--	--
Czechoslovakia, former	--	375	277	129	--
Czech Republic	--	--	--	--	375
Hungary	879	888	1,186	1,242	1,642
Turkey	1,190	593	497	3,191	2,103
Middle East	723	--	400	--	1,000
Israel	723	--	400	--	1,000
Western Hemisphere	833	2,589	6,832	12,392	11,167
Argentina	--	21	795	1,570	941
Brazil	--	--	1,837	3,655	2,962
Chile	--	--	200	120	333
Colombia	--	--	--	--	325
Mexico	570	2,306	3,373	5,916	5,932
Panama	--	--	50	--	--
Trinidad and Tobago	--	--	--	100	--
Uruguay	--	--	--	100	140
Venezuela	263	262	578	932	535
Memorandum Items					
Issues under Euro-medium term note (EMTN) programs	--	--	375	1,165	710
Argentina	--	--	--	40	50
Brazil	--	--	--	110	110
Mexico	--	--	375	615	550
Venezuela	--	--	--	400	--
Total bond issues in international bond market	255,800	226,556	297,588	333,693	249,317
Share of developing countries and regions in global issuance (in percent)	2.1	2.7	4.2	7.1	8.7

Source: Private Market Financing for Developing Countries, IMF, 1993.

Table 2. Developing Countries: Capital Flows 1/
(In percent of total unless otherwise noted)

	1971-76	1977-81	1982-88	1989-92	1991	1992
All developing countries						
Foreign direct investment	10.8	8.5	10.6	17.7	18.8	18.0
Portfolio equity	--	--	--	3.3	4.0	5.8
Bonds	1.4	2.5	3.1	5.7	6.2	10.2
Commercial bank loans	35.8	43.5	27.9	16.2	16.6	9.6
Suppliers and export credits	9.2	10.3	11.7	11.4	9.4	16.1
Official loans	30.9	26.4	35.7	31.9	29.3	28.9
Grants	11.9	8.8	10.9	13.8	15.7	11.4
Total in billions of US$	41.2	110.9	125.5	175.3	177.7	218.4
Total in billions of constant dollars 2/	78.1	117.6	117.6	138.0	138.6	167.5
Africa						
Foreign direct investment	13.3	4.7	4.4	5.8	5.2	5.4
Portfolio equity	--	--	--	0.3	0.5	0.9
Bonds	0.3	0.9	0.7	1.0	0.8	2.4
Commercial bank loans	18.0	23.4	16.5	9.6	9.6	7.3
Suppliers and export credits	13.2	20.4	20.0	18.2	16.9	16.0
Official loans	43.7	39.0	40.1	35.4	33.5	37.2
Grants	11.4	11.7	18.3	29.7	33.5	30.8
Total in billions of US$	8.1	22.0	24.9	30.4	29.6	30.8
Total in billions of constant dollars 2/	14.9	22.3	22.3	22.3	21.3	21.9
Asia						
Foreign direct investment	8.9	8.9	13.2	22.7	24.1	22.7
Portfolio equity	--	--	--	3.9	1.6	7.5
Bonds	0.7	1.4	5.2	3.9	4.2	6.5
Commercial bank loans	21.3	30.9	31.5	23.0	25.5	14.7
Suppliers and export credits	9.2	11.9	10.2	10.9	8.8	19.6
Official loans	42.2	36.0	32.7	29.8	29.8	24.5
Grants	17.7	10.8	7.2	5.7	6.0	4.6
Total in billions of US$	10.5	24.6	43.3	73.8	73.7	92.8
Total in billions of constant dollars 2/	19.8	25.7	40.8	59.8	59.0	73.4

Table 2 (Concluded). Developing Countries: Capital Flows 1/
(In percent of total unless otherwise noted)

	1971-76	1977-81	1982-88	1989-92	1991	1992
Middle East and Europe						
Foreign direct investment	1.4	5.8	7.0	8.5	5.9	8.1
Portfolio equity	--	--	--	0.3	0.3	0.4
Bonds	0.6	0.3	1.9	6.3	3.8	9.5
Commercial bank loans	10.0	16.2	15.4	8.6	2.3	2.1
Suppliers and export credits	4.4	5.8	11.4	11.7	14.0	17.3
Official loans	43.1	43.5	40.9	30.6	30.0	35.3
Grants	40.5	28.5	23.4	34.1	43.8	27.3
Total in billions of US$	5.0	14.6	20.5	25.5	23.6	33.6
Total in billions of constant dollars 2/	8.8	14.9	19.1	18.9	17.2	24.0
Western Hemisphere						
Foreign direct investment	12.6	10.7	14.0	22.6	25.1	22.5
Portfolio equity	--	--	--	5.8	11.3	8.8
Bonds	2.6	4.5	2.2	10.7	13.5	20.0
Commercial bank loans	59.3	66.7	36.2	14.2	14.2	7.3
Suppliers and export credits	8.7	6.2	8.8	7.3	3.7	10.2
Official loans	15.8	11.1	35.2	34.4	25.7	27.9
Grants	1.1	0.8	3.5	5.0	6.6	3.2
Total in billions of US$	17.6	49.7	36.8	45.6	50.8	61.2
Total in billions of constant dollars 2/	36.6	58.1	36.0	37.8	42.5	49.6

Source: IMF Staff estimates; and World Bank.

1/ Gross flows (excluding short-term loans). These data should be regarded as illustrative of the broad trends of flows to developing countries.

2/ Deflated using 1985 = 100 unit value of total imports.

the same time, it is notable that this process has not as yet significantly affected countries in certain regions such as sub-Saharan Africa and, to a lesser extent, the Middle East.

Emerging equity markets (especially in Asia and Latin American countries) have experienced sharp increases in capitalization and trading activity. The combined capitalization of traded equities on the 38 emerging stock markets has risen from under US$100 billion at end-1983 to nearly US$1 trillion by end-October 1993. As detailed in Feldman and Kumar (1994), capitalization in relation to GDP is now larger in some developing countries than in the United Kingdom and the United States. The increase in trading activity has also been notable, amounting to some twenty-fold or more in Argentina, Hong Kong, Korea, Mexico and Thailand.

In addition to the general issues discussed above--especially, the role of appropriate macroeconomic policies--several factors may be identified as accounting for the growth in emerging equity markets and the importance of international equity flows. 1/ These include structural and regulatory changes in the international investment process and developments in industrial country markets. 2/ Overall, there has been an increase in expected returns from investing in developing country credit and equity instruments, combined with a decline in the cost of doing so; the latter was also favorably influenced for some time by lower opportunity costs associated with investments in industrial countries.

The improvement in developing country "fundamentals" discussed in the previous section has been accompanied by structural and regulatory changes facilitating international investor response. Technological progress--particularly that affecting information flows and payments and settlement systems--has reduced transaction costs. This has been reinforced by increased liquidity and improved regulatory regimes. Indeed, important steps have been taken in several developing countries to reduce investor risks associated with limited liquidity, inadequate investor protection, weak accounting and information disclosure systems, and vulnerable payments and settlement regimes. The availability of investment paper in some countries has also been enhanced by the modalities of privatization programs. Finally, several developing countries have rationalized the domestic taxation of equity returns, including the treatment of dividend income and capital gains. 3/

Regulatory changes in industrial country markets have also played an important role by lowering regulatory costs. They include rationalizing procedures governing registration, disclosure, and minimum credit rating

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1/ Indications of a correlation between economic fundamentals and cumulative equity returns may be found in Mullin (1993), including a statistically significant positive correlation with export growth rates.

2/ See El-Erian (1994).

3/ Details may be found in International Finance Corporation (1993).

standards, as well as the relaxation of restrictions on investment abroad by institutional investors and the emergence of a broader range of vehicles for such investments (e.g., mutual funds). Of particular relevance are operations associated with American and global depository receipts (ADR and GDR, respectively) systems which provide for international trading of developing country stocks through trust arrangements, with the clearance and settlement handled by custodian banks in industrial countries. 1/ Overall, the increased accessibility of equity markets in developing countries provided for a process of adjustment in the "appropriately diversified" international portfolios.

The response of investors was also affected by an important "push factor"--viz., developments in expected common-currency returns on alternative investments. Thus, particularly in the context of expectations of relatively stable bilateral exchange rates, the reduction in nominal yields in industrial country markets in the early 1990s, (especially in the United States) and, more generally, subdued economic activity, induced investors to seek opportunities in developing countries. 2/ Conversely, the increase in industrial country nominal rates in the first half of 1994 contributed to a sharp correction in emerging equity and bond markets.

3. Economic benefits of equity market growth and internationalization

The process of capital market growth and internationalization provides developing countries with a larger pool of capital which can assist in financing productive investment activities. 3/ Indeed, recent studies document the importance of equity financing for firms in the rapidly growing economies of east Asia; including when compared to industrial countries. 4/ This comes at a time of increasing pressures on industrial country aid budgets and growing international competition for the relatively less divisible foreign direct investment flows.

In addition to expanding the channels for financial holdings to be channeled to productive investments, the process of capital market growth and internationalization facilitates the operation of price signals in lieu of what has proved to be more disruptive market clearing through quantity rationing. Moreover, a well-functioning price mechanism, and the related

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1/ See Collyns et. al. (1993).

2/ See Calvo, Leiderman and Reinhart (1993).

3/ See Dailami and Atkin (1990). While the focus here is on developing countries, it should be noted that there are also several benefits for industrial countries. Thus, developing country equity markets allow for risk reduction through greater portfolio diversification. For example, the analysis carried out by Feldman and Kumar (1994) for the period December 1988-June 1993 point to a low and sometimes negative correlation between stock prices in the large emerging markets and those in the United Kingdom and the United States.

4/ Singh and Hamid (1992) and Singh (1994).

potential for efficient mergers and acquisition, can strengthen market discipline in developing countries and contribute to a more efficient allocation of capital. 1/ The corollary at the macroeconomic level is the potential for the enforcement of greater discipline on policies through more immediate costs to policy slippages in terms of market reaction--thereby also providing for enhanced policy credibility.

There is a growing literature on the specific role of equity markets in economic development. The consensus view, as formalized by Atje and Jovanovic (1993), is that these markets can potentially have a beneficial effect, and may even lead to an increase in the steady-state growth path of an economy. This is so in part because they are conducive to the development of venture capital and hence technical progress. They can raise the fraction of financial resources available for investment by increasing liquidity, and enhancing the set of financial instruments available to savers to diversify their portfolios. The limited availability of debt finance in many developing countries, including bank loans which may be limited to a select group of companies can also make equity finance highly attractive. 2/

In part, equity markets can have a beneficial effect because by eliminating the likelihood of premature retraction of capital from firms, they can accelerate the growth rate of human-capital production which is plays a crucial role in determining long-run growth. In this context, it has been noted that high capital gains taxes, or taxes on equity market transactions, can directly affect growth rates. These taxes alter resource allocation by reducing the expected after tax resale value of companies' stock. This reduces the fraction of resources invested and, hence, can have adverse consequences for growth.

It should be noted, however, that the use of equity markets is also considered to entail a number of potential costs. For instance, the managerial and financial resources required for instituting, regulating, and operating these markets could have a high opportunity cost. More importantly, there may be costs due to the separation of management and ownership, the efficiency with which project risks are diversified and priced and, possibly, excessive volatility.

The role of these markets in takeover activities and their impact on companies competitiveness have received particular attention. It is suggested, for instance, that the takeover threat, or actual takeovers, may reduce long-term investment and hence competitiveness by inducing a bias towards short-term profits and financial returns. In this context, the

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1/ See Kumar (1984), Schleifer and Vishny (1986), and Feldman and Kumar (1994).

2/ This limitation can reflect endogenous constraints in credit markets, resulting from adverse selection and incentive problems. See Feldman and Kumar (1994) for a further discussion of these issues.

performance of U.K. and U.S. companies is contrasted with the so-called bank based systems in Germany and Japan but without yielding convincing results (see Singh 1994). Evidence on this issue is even less systematic for developing countries, but what little evidence there is does not suggest that the takeover mechanism significantly affects firms' operating horizons.

As far as the magnitude of equity financing is concerned, recent evidence would tend to suggest that developing country corporations use non-internal finance (long-term debt and equity) to a far greater extent than in industrial countries. While in industrial countries growth is financed overwhelmingly from internal sources (i.e. retained profits), in the case of some developing countries such as Korea, Mexico and Thailand, the median corporation in the top 50 financed over 80 percent of its growth from external sources. 1/ Within non-internal sources, it is shown that equity finance is a very important source of funds among the listed large companies, accounting in the 1980s for as much as 50 percent of corporate growth in Jordan and over 60 percent in Turkey. In industrial countries, net new issues on equity markets usually make a small contribution to corporate growth.

The heavy reliance of these developing country corporations on equity markets may appear surprising given the level of development of these markets and the fact that not many listed firms will have a long enough track record. Singh (1994) offers two main explanations to explain this phenomenon. First, governments in several developing countries have played an active role to encourage equity funding to deepen and broaden the stock markets, in part to accommodate the privatization program and, in the case of Latin American countries, to attract foreign portfolio investment. Many restrictions on market activities have been removed, and tax incentives and a variety of nontax benefits provided in order to induce firms to seek stock market listing and for individuals to purchase shares. For instance, in Jordan companies are allowed the use of the limited liability construct only if they offer a minimum proportion of their equity to the general public (25 percent for financial institutions and 50 percent for industrial and commercial companies); in India, nonresidents of Indian origin have been given special tax-incentives to invest in the stock market; in Korea, the government set up a stabilization fund to provide price support and put a statutory ceiling on debt-equity ratios for firms thereby forcing them to seek equity market financing.

The second explanation for firms' reliance on equity markets relates to the sharp decline in the cost of capital which followed the increase in the price-earnings ratios during the 1980s. For instance, in 1980 the average price-earning ratio on the Korean market was about 3. By 1989, price earnings ratios were more than four times as high (average 14) and thus the cost of equity capital fell sharply. In terms of cash flow, taking into account taxes, the cost of equity capital to the Korean corporations in 1989

1/ Singh and Hamid (1992) and Singh (1994).

is estimated to have been only 3 percent, as dividend yields were only 2 percent. This compares with a figure of 12 1/2 percent for commercial bank loans. Singh (1994) notes that there appears to be some positive relationship between equity financing and the long-term price earnings ratios in a sample of developing countries.

The internationalization of developing countries' equity markets entails three important indirect benefits which also warrant mention at this stage. First, it enhances developing countries' ability to use market-based risk management techniques to reduce the cost of unfavorable international price developments. This is particularly important for countries with limited trade diversification. Thus, the reduction in country risk perceptions provides several developing countries with access to cost-effective hedging tools that limit the impact of unanticipated adverse developments in commodity prices, as well as international interest rates. 1/ Second, as investors get to know about investment opportunities in developing countries, there is a range of potential positive externality effects. These include improvements in the financial intermediation process resulting from the increased liquidity and efficiency of developing country financial markets, as well as potential transfer of expertise and technology. In addition, by reducing the so-called "recognition problem," there is scope for larger foreign direct investment and higher exports. Third, by increasing the immediate costs of policy slippages and thereby providing for a more effective disciplinary instrument on policymakers, greater integration with international capital markets can serve as an important factor in enhancing policy credibility.

As is the case for other types of financial inflows, the use of equity financing may be deemed efficient if, as discussed earlier, it is associated with activities whose rate of return equals or exceeds the annual cost of "servicing" the inflows. An important aspect of equity finance is that its "servicing" (through profit transfers and dividend payments) is linked directly to the performance of the underlying investment. As a result, in assessing the yield criterion, there is a more direct correspondence between the capacity to meet the payments and the contractual obligations. This may be compared to loans where payments are not directly linked to the performance of the financed activity. The attractiveness of foreign direct and portfolio investment increases in the context of a relatively high stock of debt.

The internationalization of equity markets entails important challenges for policymakers. With a more open capital account, the economy becomes more vulnerable to shifts in investor sentiment. Hence, policy slippages translate more quickly in capital outflows and currency substitution. Moreover, developing countries' capital markets may become more sensitive to price instability in industrial country markets--the so-called "contagion

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1/ Mathieson et. al. (1989) reviews the actual and potential use of market-based risk management instruments by developing countries.

effects" of financial market instability. Surges in external capital inflows may also complicate economic management through increased inflationary pressures and appreciations in the real effective exchange rate, with potential adverse effects on international competitiveness. 1/ The associated risks are more pronounced in cases where push-induced flows--and associated "bandwagon effects"--are important and result in "bubbles" (i.e., price levels that are not sustainable by the economic fundamentals). 2/

III. Analysis of Equity Markets in Selected Middle Eastern Countries

Following the general discussion of equity financing in developing countries, this section reviews the status of markets in the Middle East, focussing on six countries--viz, Egypt, Iran, Jordan, Morocco, Tunisia and Turkey. This set covers relatively active markets (Jordan and Turkey), an established but less active market (Egypt), and more recently established ones (Iran, Morocco and Tunisia). The discussion below first provides general background information, and then, using quantitative indicators, compares the equity markets in these countries with other emerging markets.

1. Some general features of the market place

The financial sector in Middle-Eastern countries is dominated by commercial banks. The securities markets in these countries are relatively small despite the fact that the region contains some of the developing world's largest institutional investors in the international bond markets. For instance, the total capitalization of the Arab securities markets, reflecting mainly loan rather than risk finance, is around US$50 billion, compared to the region's private sector foreign asset holdings of over US$700 billion. 3/ Foreign participation, even in the government bond markets, is practically nonexistent. Similarly, there have been few direct placements of Middle Eastern equities on foreign markets. Moreover, the use of market-based risk management instruments by countries in the region has been extremely narrow despite the relatively limited degree of export diversification.

While there are considerable differences across countries in the importance of equity markets, with Jordan and Turkey having thriving markets, the supply of corporate securities remains generally limited both in absolute terms, and relative to the size of the economies. As discussed below, this reflects several factors which have constrained the demand for, and the supply of equities, including the closed, family-owned nature of many companies in the region. Moreover, in several countries the public

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1/ See Schadler et. al (1993).

2/ See, for example, the discussion on Hong Kong contained in Kumar (1994).

3/ See Abisourour (1994).

sector enterprises continue to play a dominant role in a wide a range of economic activities. The number of effectively quoted companies thus has been relatively small while shares available for trading have been limited, and the markets have, in general, remained thin and illiquid.

Due to the relatively under developed nature of equity markets, the region has attracted a disproportionately small share of recent international flows to developing countries. Thus, according to the data compiled by Fleming Investment Management Limited, the Arab countries received around US$0.2 billion out of the total of US$52 billion that flowed into developing country equity markets in 1993. 1/ The region's share of inflows associated with new issues was also negligible. More broadly, IFC data indicate that Arab countries accounted for only about 2 percent of total flows of foreign portfolio and direct investment in developing countries in 1989-92, with the bulk of the Arab country share reflecting foreign direct investment. 2/

While equity markets in countries other than Jordan and Turkey are small, the provision of risk finance and the tradition of market trading is hardly new. In Egypt, for instance, the Alexandria and Cairo stock exchanges are over a century old, and the Cairo stock market was one of the most active in the world in the 1940s. Other countries have also had stock exchanges for many years: in Iran, an exchange was set up in 1966, and in Tunisia in 1969.

It is increasingly recognized that, given the competition for foreign sources of funding and the limited availability of domestic finance in some countries relative to their developmental needs, equity markets could play an important role in providing capital to productive sectors, as well as facilitating the process of privatization. As noted above, the experiences of other developing countries is encouraging in this regard. They demonstrate that if conditions are right, relatively dormant markets can become relatively liquid and functioning quickly, with considerable potential. These issues are discussed below in Section V.

2. Development of markets 3/

Jordan has a relatively highly developed equity market which plays an important part in the economic life of the country. 4/ Instruments traded on the stock exchange include private corporate equities and bonds, Jordanian government bonds, and Jordan dinar certificates of deposits issued

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1/ Bates (1994).

2/ Hovaguimian (1994).

3/ For a detailed discussion of Arab equity markets in general see Abisourour (1994) which is part of an ongoing project by the Arab Monetary Fund.

4/ See Toukan (1994) who details the structure of the Amman Stock Exchange which was established in 1978.

by commercial banks. The bull market of the early 1980s was associated, inter alia, with an influx of remittances from workers in the Arab oil countries following the sharp rise in international oil prices. With the fall in oil prices, remittances declined sharply and funds were withdrawn. A second generalized surge was recorded starting in 1992, consistent with the marked improvement in economic and financial performance. Activity was well above any levels previously seen, with a daily volume averaging about US$5 million and daily trading levels exceeding US$10 million on several occasions.

Concerning the institutional environment, the Government promulgated in 1986 the Encouragement of Investment Law in which it provided numerous tax exemptions and holidays for any investment in the securities industry. Capital gains, earned interest, profits and dividends are all tax exempt. There are no special regulations affecting foreign investors; Arab and non-Arab investors are all treated on an equal footing with Jordanian investors. The repatriation of investment income (in any convertible currency) out of Jordan by non-residents is free of restrictions.

In the case of Turkey, although securities trading has a long history (the first securities market was established in the late 1860s), the equity market in its present form is recent. Centered around the Istanbul Stock Exchange (ISE), it dates from the enactment of a capital-market law in 1983. This was associated with the government's broader policy of financial and economic liberalization. In part, the government's desire to develop a deeper capital market stemmed from a decision to privatize the large and inefficient state enterprises. The privatization program was launched in 1986, but experience with privatization has not been entirely successful, leading to public sector shares being offered outside the stock exchange. The operational elements of the exchange have been significantly improved during the last few years. Since 1989, foreign investors have been permitted to trade in listed securities with no restrictions, and pay no withholding or capital gains tax provided they are registered with the Capital Markets Board (CMB) and the Treasury. There is considerable information available on the stock market and the constituent stocks on a regular basis.

The listing requirements are quite stringent in Turkey: for securities to be listed on the ISE, the company must offer at least 15 percent of the company's shares to the public; have some trading history; be in a sound financial condition as determined by the exchange; and present a detailed prospectus for public offering. Reporting requirements for companies that are listed on the exchange are two-fold: those imposed by the CMB, which governs stock market activities, and those imposed by the ISE. CMB regulations require regular independent external auditing of companies listed in the ISE, as well as special audits conducted when the company is going through a public offering, merger, acquisition, or liquidation. Listed companies are under an obligation to provide the ISE with information concerning their operations including such aspects as annual financial statements, minutes of general assembly meetings, account statements, changes in shareholders owning 10 percent or more of the company.

In Egypt, the Cairo Stock Exchange was founded in 1883. As early as 1906 there were over 300 quoted companies. Activity remained relatively brisk until the nationalization program of the early 1960s, when trading volumes virtually collapsed and only about 30 companies remained listed as compared to 925 in the late 1950s. The exchange was never closed, however, and as the market shrank, the government subsidized the remaining brokers whose commissions had fallen sharply. Greater attention has been devoted recently to the potential role of equity markets--this in the context of Egypt's adjustment and structural reform program. Specifically, the equity market is viewed as providing an important instrument for mobilizing domestic and external resources--thus, it is reported that without access to a well-functioning capital market, many otherwise viable firms may not be able to continue in the face of increased foreign competition. Moreover equity markets would facilitate privatization of state-owned enterprises, and broaden the economy's ownership base. 1/ In addition, there is increased interest among market operators in expanding the range of instruments (including through the introduction of mutual funds). This is being accompanied, as discussed below, by greater efforts on the part of the market authorities and regulators to reduce institutional, legal and other impediments.

The institution of stock exchanges in the other three countries is more recent as compared to Egypt and Turkey: Iran in 1966, Tunisia in 1969, and Morocco in 1973. In these countries, the bourses did not play a major part in economic life in the 1970s and 1980s reflecting, inter alia, the role of government-directed credits and concessional facilities. With the reform of the financial sector, more emphasis is being placed on equity markets.

3. Comparative market indicators

Before examining the factors which may explain why Middle-Eastern markets have in general remained small and the differences among them, it is worth considering a number of indicators of market activity and performance, and compare them with other countries. Table 3 provides data on market capitalization of equities for two benchmark years (1983 and 1992). In 1983, the equity market in Egypt was larger than that in Turkey, as well as several other emerging markets, when judged by capitalization (in U.S. dollar terms) as well as in relation to GDP. However, by end-1992, while the Egyptian market had increased roughly 2 1/2 fold, other emerging markets, including Turkey, had increased by a factor of 10 or more. It is also noticeable that, at end 1992, the ratio of Jordan's market capitalization to GDP exceeded that in most emerging markets, and was similar to that in industrial countries.

1/ Fag El-Nour (1994).

Table 3. Market Capitalization of Traded Equities
(Millions of U.S. Dollars, and Percent of GDP)

	1983		1992	
	Millions of U.S. Dollars	Percent of GDP	Millions of U.S. Dollars	Percent of GDP
ERF 1/ Countries				
Egypt	1106	3.0	2594	6.2
Iran	--	--	1157	3.7
Jordan	2713	56.7	3365	73.9
Morocco	253	2.1	1876	6.6
Tunisia	--	--	817	6.1
Turkey	968	2.0	9931	8.9
Other Emerging Markets				
Argentina	1386	1.3	18633	8.2
Chile	2599	13.2	29644	78.1
Colombia	857	0.9	5681	11.6
Greece	964	2.76	9489	12.2
India	7178	7.2	65119	26.7
Kenya	--	--	607	7.5
Nigeria	2970	3.7	1243	4.5
Philippines	1389	1.4	13794	26.2
Thailand	1488	1.5	58259	55.4
Industrial Markets				
Japan	565164	47.6	2399004	65.4
United Kingdom	225800	48.9	838579	79.8
United States	1898063	55.7	4757879	78.8

Sources: IFC Emerging Markets Factbooks and International Financial Statistics.

1/ Economic Research Forum.

-- Indicates data not available.

In terms of the numbers of listed companies and value traded, the picture looks rather different. As Table 4 illustrates, the number of listed companies in Egypt increased from 154 to 656, compared to a much smaller increase in several other countries and a decline in others. However, if one considers activity on the market, as measured by value traded, Egypt's increase was limited when compared to other markets. Consequently, value traded remains small relative to the number of companies quoted. In the case of Morocco and Tunisia, the average value traded has increased, albeit remaining relatively small especially in the case of the latter market. Trading volume in the Amman Stock Exchange (ASE) has increased sharply from US$19 million in 1978 to US$640 million in 1989 and further to US$1.5 billion in 1993 (the largest in the Arab countries). During the same period, the number of listed companies rose from under 70 to almost 115. 1/

The interpretation of some of these raw data needs to be qualified with a number of observations. In Egypt, the 674 shares listed include over 400 that are closed companies, with the rest seldom trading. Companies, including those that are fully owned by state entities, list to take advantage of tax breaks. It is estimated that the shares of only about 80 companies actually trade--albeit an increase from 40 in 1983. 2/ Similarly, market capitalization data, which show the nominal value of all listed shares, should also be interpreted with caution. Excluding listed shares that are not available for trading, sharply reduces the total. At the same time, those few shares that do trade usually do so at a multiple of their nominal value, thereby raising the total. Taking these factors into consideration, it has been estimated that market capitalization of the stocks that trade is probably around U$0.5 billion. 3/

Finally, it is worth noting that in both Jordan and Turkey, market concentration--defined as the share of capitalization held by the ten largest stocks--although high compared to industrial country markets, is by no means out of line with market concentration in other emerging markets (Table 5). Moreover, capitalization concentration has declined over the last few years in both countries. There has been an even more significant decline in the share of value traded by the most active stocks, attesting to the increasing breadth and depth of the two markets.

4. Determinants of stock market activity

Consistent with the general analysis of Section II, the absolute and relative developments of Middle Eastern equity markets is related to a range of economic, financial, institutional and legal factors. Market deepening and related international linkages have progressed furthest in the context

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1/ Toukan (1994).
2/ Fag El-Nour (1994).
3/ See Morland (1993). The unadjusted market capitalization amounted to some US$2.6 billion at end-1992.

Table 4. Listed Companies and Value Traded

	1983			1992		
	No. of Listed Companies	Value Traded (Millions of US Dollars)	Avg. Value Traded (Millions of US Dollars)	No. of Listed Companies	Value Traded (Millions of US Dollars)	Avg. Value Traded (Millions of US Dollars)
ERF Countries						
Egypt	154	32	0.21	656	293	0.45
Iran	--	--	--	118	225	1.91
Jordan	95	329	3.50	103	1317	12.80
Morocco	76	17	0.22	62	70	1.13
Tunisia	--	--	--	17	2	0.12
Turkey	373 1/	7 1/	0.02	145	8191	56.50
Other Emerging Markets						
Argentina	238	389	1.63	175	15679	89.59
Chile	214	65	0.30	245	2029	8.28
Colombia	196	65	0.33	80	554	6.93
Greece	113	17	0.15	129	1605	12.44
India	3118	2377	0.76	6700	20597	3.07
Philippines	208	483	2.32	170	3104	18.26
Thailand	88	381	4.33	305	72060	236.3
Kenya	--	--	--	57	12	0.21
Nigeria	93	18	0.19	153	23	0.15
Industrial Markets						
Japan	1789	230906	129.10	2118	635261	299.93
United Kingdom	2217	42544	19.20	1874	382996	204.37
United States	7722	797123	103.20	7014	2678523	381.88

Sources: IFC Emerging Markets Factbooks and International Financial Statistics.
1/ Data are for 1984.
-- Denotes data not available.

Table 5. Market Concentration

	1988		1992	
	Share of Capitalization held by ten largest Stocks	Share of Value Traded by ten most most active Stocks	Share of Capitalization held by ten largest Stocks	Share of Value Traded by ten most most active Stocks
Jordan	62.2	46.0	49.4	31.6
Turkey	43.6	65.5	39.9	11.4
Argentina	53.2	78.5	68.8	72.5
Colombia	64.4	60.1	78.5	62.9
Greece	44.8	60.3	43.6	50.4
India	22.6	56.6	22.6	32.2
Nigeria	49.4	48.8	48.5	53.6
Philippines	54.6	56.8	22.6	32.2
Japan 1/	24.6	--	16.5	--
United Kingdom	22.7	--	24.2	--
United States	13.7	--	14.9	--

Source : IFC

1/ Data for industrial markets are for April 1988 and April 1992.

-- Indicates data not available.

of sustained implementation of financial sector reforms and, more generally, policies aimed at liberalizing economic activities and reducing financial imbalances. The sustainability of normal financial relations with existing external creditors, characterized by timely payment of scheduled contractual obligations, has also been an important factor.

Historically, the financial sector in many of the Middle Eastern countries (especially the non-oil economies) was characterized by strict controls over rates of returns and administrative allocation of credit through the banking system and public sector specialized financial institutions. In recognition of the adverse impact on the overall process of financial intermediation--both in the domestic mobilization and allocation of loanable funds and in competition for international funds--several Middle Eastern countries embarked on financial liberalization efforts. Measures included greater price flexibility, reduction of preferential credit facilities, and a move toward indirect monetary control instruments. In some countries, efforts were also directed at deepening domestic capital markets.

As noted earlier, the development of equity markets and their internationalization have also been adversely affected by investor concerns regarding structural inadequacies in the legal and regulatory framework. The impact of financial sector reforms which address these aspects has differed among countries due to two sets of factors. First, progress in the implementation of market-enhancing measures such as: (i) improvements in trading, reporting and accounting systems; (ii) strengthening of legal procedures; and (iii) removal of fiscal distortions discouraging equity financing. Second, progress in the broader program of economic and financial liberalization, particularly in the areas of: (i) liberalization of regulations governing foreign direct and portfolio investments, including ownership, market access, and repatriation of capital, dividends and profits; (ii) privatization of state owned enterprises, especially in the industrial, telecommunication and financial sectors; and (iii) liberalization of the domestic investment regime, including dismantling of government monopolistic and oligopolistic structures. 1/

As noted in the analysis of Section II, there is also a need to consider the status of financial relations with existing creditors. After rescheduling in the late 1970s and early 1980s, Turkey met scheduled debt payments without recourse to debt restructuring, enhancing during this period the domestic and external private sector's positive perceptions of country transfer risks. Jordan recently concluded a commercial bank package

1/ A review of Arab countries' structural reform policies may be found in El-Erian and Tareq (1993). The Tunisian experience is discussed in Nsouli et al. (1994).

incorporating debt and debt service reduction elements. 1/ Anticipations of the beneficial impact of this package and, more importantly, the accompanying adjustment and reform policies, were reflected in a sharp increase in the secondary market valuation of Jordan's debt and is expected to facilitate its tapping of international financial markets. Egypt, whose debt is predominantly to official creditors, has completed two of the three stages of debt forgiveness with the Paris Club. Interestingly, reaction in the secondary market prices for Egypt's bank claims has been relatively more subdued. 2/ Iran has achieved some progress in normalizing its external payments situation through bilateral refinancing arrangements. Finally, in the case of Morocco and Tunisia, external financial relations do not seem to have been the binding constraint on the expansion of equity markets. Thus, both countries have maintained normal payments relations with external creditors in recent years, with Morocco experiencing a sharp increase in secondary market prices (Chart 1). 3/

IV. Market Volatility and Informational Efficiency

Stock market efficiency plays an important role in enhancing the contribution of equity markets to countries' economic growth. There are two related types of issues which are important with regard to the functioning of the emerging equity markets in general, and which are specifically explored below for the more developed of the Middle Eastern equity markets (Jordan and Turkey)--the extent of volatility and the information content of prices.

The first issue relates to the short-term volatility in stock prices, which is said to be "excessive". Such excessive volatility would tend to discourage participation of risk-neutral and risk-averse investors. In theory, while it is difficult to have a clear criterion for defining the degree of "excessiveness", in practice, the standard usually adopted is that of the volatility of the established industrial country stock markets. 4/ To the extent that the emerging markets are more volatile, the reasons are

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1/ Debt restructured under debt and debt service obligations amounted to some US$735 million, resulting in an estimated reduction of US$360 million in the present value of the debt at a cost of some US$150 million.

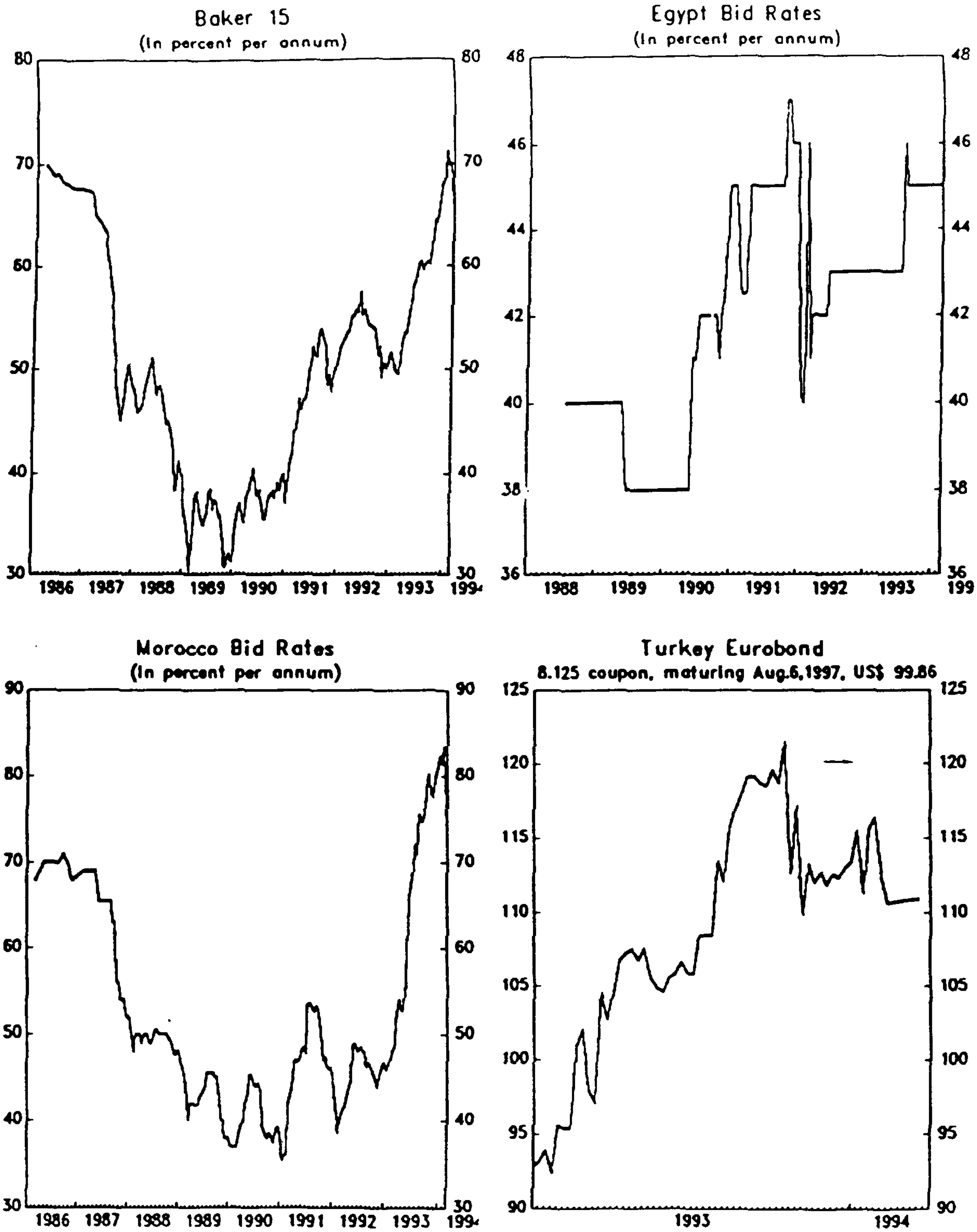
2/ This partly reflects the operation of the debt-equity program which provided for conversions at a price of 50 cents on US$1 of face value of external private debt liabilities.

3/ Morocco's last bank debt rescheduling dates back to September 1990; it last rescheduled its official bilateral debt in 1992 under the auspices of the Paris Club. Tunisia has not rescheduled in recent years.

4/ A framework for assessing volatility was provided by Shiller (1981) who showed that variations in aggregate stock market prices were much too large to be justified by the variation in subsequent dividend payments. However, other studies have suggested that Shiller's tests depend crucially on the correctness of his model of the dividend process (see Marsh and Merton (1986)).

Chart 1.

SECONDARY MARKET RATES



considered to lie in the relative illiquidity in the markets and a sporadic availability of adequate information about the quoted companies. The excessive volatility, in turn, is thought likely to lead to a weakening of investor confidence, thus setting up a vicious cycle.

At first sight, the two Middle Eastern markets differ considerably from each other, with a measure of volatility showing the Turkish market to be exhibiting considerably greater volatility than the Jordanian market (Table 6). Compared to other emerging markets also, the volatility in the Turkish market has been high. In general the emerging markets have been more volatile than the industrial country markets. It should be emphasized, nevertheless, that as the emerging markets develop and as information is reflected more quickly and efficiently, there would expected to be some increase in volatility initially. But this would be a short-term phenomenon related to the developmental nature of the market rather than an element that is intrinsic to the underlying economic and financial factors.

The second issue concerns the information content of prices, and the possibility of speculative bubbles. A bubble exists if the reason that the stock price is higher today is only because investors believe that the price will be higher tomorrow; i.e., when economic fundamentals do not justify such a price. 1/ In this situation, prices can keep increasing for considerable lengths of time relative to the levels warranted by fundamentals, only to fall sharply upon abrupt changes in market sentiment. There is a large literature in this area, and the discussion below first briefly summarizes some of the key issues concerning the related concept of market efficiency, and then presents some empirical evidence for Jordan and Turkey, as well as for some other emerging equity markets.

1. Efficient Equity Markets

The main issue examined here is the degree to which emerging equity markets are efficient in pricing securities. The market is said to be efficient if it fully and correctly reflects all relevant information in determining security prices. 2/ That is, in a free and competitive market prices of financial securities, in general, should reflect all publicly available information and these prices should adjust rapidly to new information. Thus there are two aspects of market efficiency: the type of information that the market is reacting to, and the speed with which the market reacts to that information. Since in an efficient market, prices are assumed to reflect all available information at any given time, the current price of an asset would be a good estimate of its intrinsic value owing to competition among market participants.

1/ See Stiglitz (1990).

2/ There is a very large literature in this area. For a summary of the key issues, see Fama (1976) and Fama and French (1988).

Table 6. Volatility in Selected Equity Markets, 1983-93 1/

	1983-93	1983-88	1989-93
Chile	7.6	7.9	7.2
Colombia	9.3	6.3	11.6
Hong Kong	8.1	10.0	6.8
India	10.0	7.5	12.8
Jordan	4.6	3.9	5.3
Korea	8.2	7.5	9.0
Mexico	13.8	16.4	7.9
Pakistan	6.7	2.8	8.8
Thailand	7.7	7.1	8.7
Turkey	21.2	24.3	19.8
Zimbabwe	8.9	9.5	7.7
Japan	0.9	3.8	5.7
United Kingdom	1.1	4.7	3.9
United States	1.0	3.8	2.9

1/ Measured by the standard deviation of the percentage change in equity prices (at end-month) in domestic currency: data for 1993 are up to August.

In a world of uncertainty, however, the intrinsic value cannot be properly determined. Hence, there will be differences of opinion among market participants as to the value of each share, so that actual prices will wander around the intrinsic value. According to the efficient market hypothesis, however, competition among investors will ensure that these discrepancies are not too large to be profitably used. In a dynamic economy intrinsic values can themselves change as a result of new information. In case new information is "gradually" known to the market participants, successive price changes will exhibit dependence. However, if the adjustment to new information is "instantaneous" successive price changes will be independent.

Thus the issue becomes whether successive price changes over the short period exhibit any systematic patterns or whether they are indistinguishable from random walks. 1/ Random walk implies that a series of stock price changes has no memory--the past history of the series cannot be used to predict the future in any meaningful way. With the independence assumption, it is assumed that successive price changes or returns changes are identically distributed according to some stationary distribution.

Formally, the random walk model states that

$$P_{t+1} = P_t + \epsilon_{t+1} \tag{1}$$

and $E(\epsilon_t) = 0$ and $E(\epsilon_t \epsilon_s) = \begin{cases} \sigma^2 & s = t \\ 0 & s \neq t \end{cases}$

where P_t is the spot price of the stock at time t; also ϵ_t is assured to be a sequence of independent, identically distributed random variables so that the joint density $f(\epsilon_t\ \epsilon_s) = f(\epsilon_t)f(\epsilon_s)$ for $s \neq t$.

It can easily be seen that the random walk model implies several testable restrictions on P_t. First, it follows from (1) that

$$P_{t+1} = P_t + \sum_{j=1}^{\ell} \epsilon_{t+j} \tag{2}$$

1/ The random walk hypothesis is associated with the so-called "weak" form of Efficient Market Hypothesis (EMH). It asserts that prices fully reflect the information contained in the historical sequence of prices. Thus, investors cannot devise an investment strategy to yield abnormal profits on the basis of an analysis of past price patterns. The "semi-strong" form of EMH asserts that current stock prices reflect not only historical price information but all publicly available information. The "strong" form of EMH asserts that all information that is known to any market participant is fully reflected in market prices. (For details, see, Fama (1976) and Kaminsky and Kumar (1990)).

and hence the conditional expectation based on information available at time t and denoted by E_t is

$$E_t P_{t+1} = P_t \tag{3}$$

If prices do follow a random walk, it means that past prices contain no useful information regarding their future movements. This would mean that prices adjust rapidly to new information. So the independence of price changes is consistent with the efficient market.

The random walk hypothesis is borne out, to varying degrees, in active industrial country markets indicating that over time only competitive rates of returns are likely to be earned and that prices in such markets adjust instantaneously to new information as soon as it is publicly available. 1/ In emerging markets, there may be dependence in prices for several reasons: companies divulge far less information to investors compared to that available to investors in industrial countries; the companies are subject to less investment research; and small markets are technically less elaborately organized. In addition, there are other structural and institutional factors: markets have difficulty in detecting and discriminating among investment opportunities; capital markets are fragmented; dichotomy exists in the financial activities between organized and unorganized money markets; and investors have shorter horizons because of greater political and economic uncertainties.

Moreover, there are many potential and actual imperfections creating inefficiencies even in the most researched and regulated stock exchanges arising from transactions costs, speculative bubbles, disinterested shareholders, and information that is not freely available. In the case of emerging markets, the likelihood of these inefficiencies is higher, making the share prices temporally dependent.

The objective of the econometric exercises reported below is to assess whether stock prices in Jordan and Turkey displayed any systematic patterns or whether they are indistinguishable from random walks. The results have interesting implications for portfolio management and allocative efficiency of securities markets, as well as several related issues.

1/ As noted above, there is a large empirical literature in this area. The basic conclusion is that while there are certainly instances of departures from the Efficient Markets Hypothesis in industrial country markets, in general these markets are extremely efficient in utilizing information. See Malkiel (1991).

2. Empirical evidence for Jordan and Turkey

There are three methodological points which should be considered before testing the hypothesis of market efficiency: the level of disaggregation, time interval over which prices are analyzed, and the standard of comparison. The analysis below uses indices of equity prices for the stock markets as a whole, rather than data on individual share prices. Although there are well-known problems in using an index rather than data on individual shares--aggregative index may behave more systematically than the components due to the reduction of the random elements by averaging--data on individual series were not available. With regard to the time interval, the ideal would have been the information on transactions. Since this was not available, daily and weekly data were used. Daily data has the advantage of providing contiguous observations, although these data suffer from institutional cycles, such as no trading at weekends.

In order to provide some basis for comparison, the analysis was undertaken for three other countries, in addition to Jordan and Turkey (viz., Greece, India and the Philippines). This comparison also allows an assessment of the effect of short-term covariation in the Jordanian and Turkish stock markets on the one hand, and these markets on the other. Greece was chosen because of its proximity to Turkey, as well as the similarity in the capitalization of Greek and Turkish markets both in 1983 and 1992. The Philippines also had similar capitalization, while India was chosen to compare with a market with a significantly larger capitalization.

The empirical evidence is based on the serial correlation, and on the non-parametric "runs" techniques. The serial correlation analysis follows directly from equation (1) to (3) and tests the linear independence of log price changes. It indicates whether price changes at time (t) are influenced by price changes occurring (k) period earlier, where k indicates the lag length. It would be expected that if there is to be any correlation in log price changes, the most likely would be between successive terms, i.e., $k=1$, rather than with $k>1$.

The results of the serial correlation analysis, for $k=1$ to 10, for both daily and weekly prices, are provided in Table 7. For the daily series, the results indicate that for both Jordan and Turkey as well as the Philippines, the first-order serial correlations are highly significant. That is, there is serial dependence among the day-to-day price changes in the stock markets in these countries, and the random walk model does not hold. With regard to higher order coefficients, the third, fourth and the sixth-order are significant for Jordan, while in the case of both Greece and India, some higher order coefficients are also significant. This suggests that not only successive price changes are related but distant lagged changes also exhibit some association. In general, however, for longer lags the coefficients are relatively small, and there is very little pattern in the signs of serial correlations.

Table 7. Efficiency in Equity Markets: Serial Correlation Coefficients

lag	1	2	3	4	5	6	7	8	9	10
DAILY DATA 1/										
Jordan	0.194[a]	0.241[b]	0.029	0.171[a]	0.060	0.022	0.044	0.002	-0.023	0.038
Turkey	-0.163[a]	0.091	0.013	-0.005	-0.005	0.054	-0.031	0.006	0.050	0.070
Greece	-0.015	0.130[b]	-0.030	0.058	0.002	0.103[c]	0.013	-0.021	0.0150	0.034
India	0.081	0.043	-0.009	-0.106[c]	0.041	0.081	0.039	-0.002	0.076	0.068
Philippines	0.210[a]	0.054	-0.069	-0.060	0.030	0.043	-0.023	-0.043	-0.076	-0.059
WEEKLY DATA 2/										
Jordan	0.046	-0.035	0.024	-0.130[c]	-0.085	0.051	-0.032	-0.043	0.054	0.023
Turkey	0.104	0.171[b]	0.069	0.031	-0.038	-0.032	0.000	0.021	0.077	-0.030
Greece	0.129[a]	0.178[a]	0.062	-0.017	0.090	-0.012	0.096	0.018	0.095	0.023
India	0.099	0.086	0.137[b]	0.143[c]	0.034	-0.032	0.006	-0.037	-0.061	0.043
Philippines	0.104	0.082	0.124[c]	-0.031	0.011	0.058	-0.011	0.038	-0.134[b]	-0.021

1/ Price data obtained from Bloomberg Inc., are from September 1992 to March 1994; for all countries except Jordan and Pakistan, there are 278 observations for the first lag, 277 observations for the second lag, and so on. For Jordan, there are 167 observations for the first lag, and so on--this is because while the Amman stock market is open for business from Saturday to Wednesday, Bloomberg does not provide data for trading on Saturday and Sunday.

2/ Data are from December 1988 to April 1993; there are 225 observations for first lag, 224 for the second lag, and soon.

a,b,c denote statistically significant at the 1, 5 and 10 percent level respectively.

In the case of weekly data, the pattern is somewhat different. The first order coefficients are statistically significant only for Greece, but several of the higher order coefficients are significant for the other countries. Taken together, both the daily and weekly price series suggests some departures from the random walk hypothesis. It should be emphasized, however, that while a quantitatively small serial correlation coefficient could be highly significant statistically, it may imply dependence which has limited economic significance. Thus the serial dependence displayed by some of the indexes can hardly be used for predicting the future course in a meaningful manner. This is because the proportion of variance in current price changes explained by past price changes is in general quite small. Hence from the point of view of an investor, dependence of such a low order may not be enough to increase his expected profits.

Next a statistical exercise was undertaken to examine the efficiency hypothesis using runs analysis. This is important as it captures the possibility that share prices may be random most of the time but may become serially correlated for varying periods of time, and such dependence may not be detected by serial correlations. 1/ Moreover, serial coefficients may be dominated by a few unusual or extreme price changes, so that a tendency towards a coherent pattern of price changes is obscured by one or two instances. Further, the runs tests, non-parametric in nature as they are, do not depend on the finite variance assumption of the price changes. A runs test is performed by comparing the actual number of runs (defined as a sequence of price changes of the same sign preceded and followed by price changes of different signs) with the expected number of runs on the assumption that price changes are independent. If the observed runs are not significantly different from the expected number of runs, then the inference is that successive price changes are independent.

The results of the runs analysis for both the daily and the weekly data are provided in Table 8. The first and the fifth columns in the table indicate the number of times there were positive, negative or zero changes in prices. The second and the fourth column indicate the number of positive, negative or zero runs, and the third and the sixth columns indicate the total number of runs. (The runs were calculated up to a lag of 10. For instance, a positive run of lag k indicates a sequence of k positive price changes preceded and succeeded by either negative or zero price change).

Under the hypothesis that successive price changes are independent and on the assumption that sample proportions of positive, negative and no-price changes are unbiased estimates of the population proportions, the expected

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1/ Statistical tests based on the theory of runs ignore the absolute values in a time series and observe only their signs. That is, they are concerned with the direction of changes in a given time series (see Baillie and McMahon (1989)).

Table 8. Efficiency in Equity Markets: Non-parametric Tests
(Actual and Expected Runs)

		Daily Data 1/				Weekly Data 2/			
		No. of Sign Changes	No. of Runs of one sign	Total No. of Runs	Total No. of Expected Runs	No. of Sign Changes	No. of Runs of One Sign	Total No. of Runs	Total No. of Expected Runs
Jordan	Positive	90	20			124	47		
	Negative	75	29	51	85.8[a]	99	46	96	115.6[a]
	Zero	3	2			3	3		
Turkey	Positive	140	62			120	55		
	Negative	137	63	127	142.5[b]	103	52	110	116.3
	Zero	2	2			3	3		
Greece	Positive	142	62			110	52		
	Negative	137	52	114	140.5[a]	116	50	102	113.9
	Zero	0	0			0	0		
India	Positive	151	60			121	55		
	Negative	125	68	131	142.3[a]	99	57	117	118.7
	Zero	3	3			6	5		
Philippines	Positive	150	45			122	53		
	Negative	129	53	98	139.7	102	54	108	115.1
	Zero	0	0			2	1		

1/ For daily data, for all countries except Jordan, total number of sign changes is 279. For Jordan, for the reason indicated in Table 8, there are fewer observations and the total number of sign changes is 168.

2/ For weekly data, total number of sign changes is 226.

a,b,c indicate the observed and expected runs are significantly different form each other at the 1.5 and 10 percent level respectively.

number of runs of all types can be computed. 1/ The expected value of total runs is given in columns 4 and 8. In the case of Turkey, for example, the expected number of total runs (positive, negative, and zero) for daily data was 142.5, compared with the actual number of runs of 127. The normalized test statistic showed that the null hypothesis of independence of runs could be rejected at the 10 percent level of significance. Similarly, for Jordan, the null hypothesis could be rejected at the 1 percent level. Of the other three countries, the differences between the actual and expected runs were also highly significant for Greece and the Philippines. Thus with the exception of India, in each case the actual number of runs fell significantly short of the total expected number of runs, implying positive serial correlation.

A comparison of the total number of observed and expected runs for the weekly data series reveals a rather different picture. While for Jordan, the null hypothesis is again rejected at the 1 percent level, for none of the other countries is the difference between the actual and the expected number of runs statistically significant.

To sum up this section, the results of the econometric exercises suggest that there are some differences between the operational efficiency of the two most active Middle-Eastern equity markets. While the Turkish market exhibits greater price volatility, it also appears less likely to have serial dependence in prices, i.e., the behavior of equity prices provides greater support for the weak-form of the Efficient Market Hypothesis. These results can be consistent with the increasing depth and liquidity of the Turkish market. However, taking all the statistical results together, it is also the case that the behavior of both these markets is not markedly different from that of a sample of other emerging markets. This, in turn, suggests a number of similar underlying factors, noted below, impinging on the operational efficiency of emerging equity markets.

V. Developing and Improving Equity Markets in Middle Eastern Countries

Notwithstanding their relatively limited development to date in most Middle Eastern economies, there is increasing recognition among policymakers as to the beneficial role of equity markets in enhancing the process of mobilizing and allocating resources in support of growth and development. If one considers the experience of emerging markets in other regions, there are two broad types of conditions which are important in this regard. First, the macroeconomic environment has to be conducive to the development and growth of private sector enterprise. Second, the structure of equity markets must be strengthened through appropriate policies in the areas of

1/ For the formula for the expected number of runs, and its standard error, see Baillie and Mcmahon (1989).

information and accounting mechanisms, market regulation and supervision, property rights, pricing efficiency, and taxation regimes.

Given the considerable economic potential of the Middle East and the valuation adjustments in many of the other emerging equity markets, there would appear to be favorable prospects, a priori, for significant mobilization of funds from domestic, regional and external investors. Indeed, not only are there indications of a significant amount of portfolio funds in the hands of industrial country investors which could move into these markets but also there is a pool of off-shore Middle-Eastern savings that could be expected to be reflected in inflows to equity markets in the region. Finally, equity markets could provide the scope for increased trading of Islamic-based financial instruments.

Despite differences among countries in the region, there are indications that several of the factors that contributed to the growth of stock market in Asia and Latin America are present in the Middle East region. Thus, there have been efforts in several countries in recent years to implement fiscal and monetary sector reform, reduce inflationary pressures, and strengthen external sector performance. Moreover, some countries have experienced significant private capital inflows and reverse currency substitution (e.g., Egypt during 1991-93).

It is clear from the earlier analysis that, from a macroeconomic perspective, the key factors determining the future evolution of Middle Eastern countries' equity markets and their relation with international capital markets are the domestic macroeconomic policy stance and the status of external financial relations. These will remain the key issues in influencing investors' perceptions of credit and transfer risk. To this end, appropriate aggregate demand management policies will need to be accompanied with greater emphasis on structural reforms--this with a view to enhancing the Middle Eastern economies' supply responsiveness, reducing their vulnerability to unanticipated exogenous shocks and improving their social sector performance.

It is also evident from this paper's analysis that what is needed, in addition, are policies aimed specifically at enhancing appropriately the demand and supply of equities. Even if there are few western-style share offerings, the stock market could receive a boost from a privatization process whose raison d'etre lies in the need to address public sector inefficiencies and progress toward more of a level playing field for public and private sector activities. Indeed, as illustrated in other developing countries (especially in Latin America), the successful implementation of privatization programs may be viewed as having a two-way casual relations with equity market developments--i.e., acting both to facilitate and to require the growth of domestic equity markets and their internationalization.

Other types of policies would entail improving the efficiency of intermediation, reducing tax-induced distortions, improving the flow of information, and strengthening market surveillance. 1/ Basically, policy needs to be directed at establishing the conditions for clear property rights, having effective settlement and custody systems, putting in place transparent trading conditions and a more level playing field among financial instruments, and providing for appropriate capital and dividend repatriation.

To this end, company laws and stock market regulations need to be clarified and overhauled in several of the countries. The share transfer procedures also need to be simplified. In several countries, steps are needed to reduce distortions that arise from the differentiated tax treatment of financial instruments. 2/ There is also need to review in a comprehensive manner factors affecting participation of nonresidents. 3/ Lessons from Turkey are instructive in this regard. As in several other countries, a significant feature of the development of the Turkish market has been the government's willingness to encourage foreign investor participation in support of equity market broadening and channeling resources to productive investment activities. First, the CMB, which governs stock market activities, has eliminated limits on foreign holdings in listed companies. This also applies to the privatized state-owned concerns. Second, since 1986 stock dividends to both domestic and foreign shareholders have been tax exempt. Capital gains tax rates for foreign investors have been reduced so that the same rates and regulations apply as for domestic investors. Both the stock and bond markets are open to foreign investors with guaranteed repatriation of proceeds. So the shares can be sold and proceeds and dividends repatriated without restrictions. However, for a foreign shareholder to exercise voting rights with respect to shares in Turkish companies, the shareholder has to obtain government permission.

In the case of Egypt, as part of the economic reform program, a comprehensive Capital Market Law was promulgated in June 1992 and became effective in April 1993. This law has revamped the legal framework for the securities market, facilitating the participation of foreign investors, and allowing competition in the provision and pricing of market services. 4/ To increase investor confidence, provisions have been made prohibiting insider trading, cornering trading practices and price manipula-

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1/ Several of these issues are discussed in Abisourour (1993). The specific cases of Egypt and Jordan are discussed in Fag El-Nour (1994) and Toukan (1994), respectively.

2/ Interestingly, equity is at a disadvantage in Morocco compared to investment in treasury instruments while the opposite situation prevails in Tunisia.

3/ Bates (1994) classifies the major markets in the Middle East region as follows: Egypt, Iran, Israel, Jordan, and Turkey as open to foreigners; Bahrain, Oman and U.A.E. as being "restricted markets"; and Kuwait and Saudi Arabia as being closed markets. His analysis does not cover the Maghreb countries.

4/ For details, see Fag El-Nour (1994).

tions. Companies issuing new securities to the public are also required to apply international accounting standards. The regulatory framework and arbitration procedures have been improved significantly with the Capital Market Authority established as an independent authority entrusted with all matters related to the development and regulation of the securities market. There are also considerable operational improvements underway in both the primary and the secondary markets.

In the case of both Morocco and Tunisia, the supply of securities is likely to increase significantly in the near future given the governments' commitment to privatization. In both countries, the regulatory regime has also been changed to attract both domestic and foreign capital to the stock market. In Tunisia in particular, existing private companies gain tax advantages if they list, capital gains tax has been abolished and dividends are free of income tax. 1/

Equity flows to emerging markets in the Arab countries will also be influenced by the geo-political conditions in the Middle Eastern region. Specifically, foreign capital inflows may be expected to respond positively to the achievement of a comprehensive, just and durable peace in the region. The economic rationale for this is based on three main elements: 2/ First, a comprehensive, just and durable peace provides the possibility of a simultaneous cross-country reduction in military expenditure. With the potential for countries in the region achieving the appropriate level of security at a lower resource cost, the freed resources may be directed to more productive activities--thus contributing to a further improvement in the economic environment. Second, comprehensive and durable peace would also impact favorably on county risk through the resulting reduction in the geo-political risk component. Finally, these direct benefits may be expected to enhance the potential for joint ventures and development of regional infrastructure--factors which could contribute to an expansion in foreign trade and investment.

In concluding this section, it is important to refer to the need for a concurrent strengthening of the banking market--this in order to avoid a lop-sided development of the financial sector, notwithstanding the relatively more developed nature of this market. Indeed, a sound and competitive banking system plays an important role in fostering the development of efficient capital markets. Accordingly, policy efforts to develop capital markets should not be at the expense of the strengthening of banking systems. Interestingly, several of the measures required for the latter--especially those affecting the enabling environment--are also essential for capital market deepening and broadening.

1/ Morland (1993).
2/ El-Naggar and El-Erian (1993).

VI. Concluding Remarks

Given the external financing environment facing developing countries in the 1990s, equity markets may be expected to play a major role in mobilizing resources in support of growth and development efforts. Indeed, several developing countries in Latin America and Asia have succeeded in the last few years in improving the operation of their domestic equity markets and attracting funds in the form of capital repatriation by residents and external portfolio investments. In addition to direct benefits in the form of a larger pool of investment capital, this process has had a number of indirect benefits including opening up a larger set of financial facilities (including market-based hedging instruments), improving the operation of price signals, and enhancing the disciplinary role of market forces at both the micro- and macro-economic levels. The process has also entailed certain risks that require a concurrent strengthening of economic policy, prudent debt management, and appropriate prudential regulation and supervision.

There is increased recognition in Middle Eastern countries as to the need to broaden significantly domestic equity markets and intensify their process of internationalization. This comes at a time of pressures on aid flows, increased international competition for private capital, and an uncertain environment for the region's terms of trade. The historical experience of countries in the region, as well as the more general experience of developing countries, suggest that there is a clear and strong potential for Middle Eastern equity market development and internationalization--a process that would be enhanced by, and contribute to the beneficial medium-term economic impact of a comprehensive, durable and equitable peace in the region. Indeed, the qualitative and quantitative analyses of these markets point to a number of similarities with other emerging markets. Moreover, as the Middle Eastern markets develop and broaden, the speed with which they react to new information would increase, thereby enhancing their efficiency and, more generally, increasing investor confidence and strengthening the role of the markets in the mobilization and allocation of funds.

Middle Eastern countries' success in enhancing the role of equity markets in support of their economies' growth and development efforts depends on four key factors internal to these economies. First, their success in reducing perceptions of country risk through the sustained implementation of adjustment and reform policies. Second, maintaining progress in strengthening the external payments regime, including normalized relations with creditors. Third, specific investment opportunities associated with the implementation of privatization programs in the region. Finally, the authorities' abilities to address institutional and legal rigidities inhibiting capital market deepening and, more generally, the balanced development of financial markets.

Stock Prices and Price-Earnings Ratios

With regard to the behavior of stock prices, data are only available for Turkey and Jordan on a sufficiently systematic basis. In the case of the other countries, the limited availability of regularly traded stocks undermined, until recently, the construction of relatively representative price indices. 1/

The stock price index and the index of total returns in Jordan declined during the late 1980s. Since 1990, however, the performance of the ASE index has been improving sharply, with the index registering significant gains in 1991 and 1992; the index of total returns also improved markedly. 2/ In 1992 the stock price index increased by 31 percent, making the ASE one of the best performers among the emerging stock markets. The increase in the index was broad based, with the industrial sector registering the best performance followed by banking, insurance, and selected services. Total value and volume of transactions also increased by almost threefold to the equivalent of about JD 880 million in 1992. These developments were associated with the marked improvement in economic and financial performance and indications of considerable repatriation of capital by residents. Indeed, it appears that most of the market participants were Jordanian (85 percent), although residents of some neighboring countries also participated in the stock market. Foreign participation of residents from non-neighboring Arab countries was relatively limited.

The price and total return tendencies continued into 1993, with increased influence on the part of foreign investors; in domestic currency terms, the stock price index increased by nearly 24 percent, with an increase in the total return index of nearly 27 percent. The continuation of high activity in the market has also been related to the leveling off of real estate prices. It is expected that the legalization of mutual funds will provide a further impetus.

With regard to price-earnings (PE) ratios, the Jordanian market was selling at a PE of 12 3/4 on the basis of estimated 1992 earnings. Unlike Egypt, and to a lesser extent Morocco and Tunisia, the Amman market did not have to compete against rates of return on fixed interest deposits well in excess of the rate of inflation. By the end of January 1994, the price-earning ratio in the ASE amounted to 22.

In the case of Turkey, share prices on the ISE declined sharply in 1992, with the local composite index falling 46 percent in dollar terms. The weakness of the equity market was due, in large part, to the high real returns on bank deposits and treasury issues, continuing high budget deficit, and political uncertainties. Favorable corporate earnings, along

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1/ Some illustrative, albeit partial, data on equity prices in Egypt are provided in Appendix Table 2 .

2/ Toukan (1994) provides a detailed assessment of the ASE's performance and market evolution.

with reforms to the Capital Markets Law, had little immediate impact in terms of higher share prices. In 1993, however, the Turkish market soared, with the price index increasing by nearly 215 percent in dollar terms. The market's extraordinary upturn was due to a number of factors including the lagged effects of capital market reforms, continuing favorable corporate earnings, and expectations of a major privatization drive. In addition, the announcement of tax and expenditure reforms gave rise to expectations of improved fiscal performance and a reduction in domestic financial imbalances. These factors led to strong institutional interest, with considerable inflows of foreign portfolio capital moving into equities. The process was given further impetus by the clear evidence that over several preceding years there had been zero, or even negative, correlation between price changes in industrial country markets and in Turkey (Appendix Table 1)--thereby providing a strong basis for risk reduction through portfolio diversification. The price earnings ratios in Turkey increased from 7 at end 1992, to nearly 18 by end-June 1993 and 36 by end-December 1993. This tendency was reversed in the first half of 1994 during which the market experienced a sharp correction in the context of a sharp depreciation of the exchange rate, mounting financial imbalances, and concerns about increasing country risk. 1/

1/ Turkey's credit rating was downgraded in 1994.

Apprendix Table 1. Correlation Coefficient Matrix of Price Indexes
(US$: five years ending December 1992)

Jordan	1.00							
Turkey	-0.03	1.0						
Greece	0.14	0.37	1.0					
India	-0.10	0.15	0.06	1.0				
Philippines	0.22	-0.05	0.20	-0.08	1.0			
Japan	0.18	0.01	0.06	-0.14	0.16	1.0		
United Kingdom	0.34	-0.04	0.12	-0.03	0.24	0.52	1.0	
United States	0.26	-0.15	0.0	-0.16	0.42	0.30	0.57	1.0
	Jordan	Turkey	Greece	India	Philippines	Japan	United Kingdom	U.S.A

Sources: IFC Global Price Index Databank.

Appendix Table 2. Egyptian Capital Market Price Index 1/

	General Price Index	Subscription	
		Public	Closed
1985	58.9	60.4	57.9
1986	62.8	70.1	56.5
1987	64.2	73.2	56.4
1988	64.0	72.8	56.4
1989	64.4	72.4	57.5
1990	63.1	68.4	58.5
1991	100.0	100.0	100.0
1992	108.9	115.3	103.4
1993	135.7	158.2	117.4
March 1994	158.7	210.1	118.9

1/ Data are for end of period.
Source: Fag El-Nour (1994).

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