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**Investment and Growth in the Middle East and North Africa**

Prepared by Amer Bisat, Mohamed A. El-Erian, Mahmoud El-Gamal  
and Francesco P. Mongelli <sup>1</sup>

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**Abstract**

The paper considers investment and growth in the Middle East and North Africa (MENA) region. Notwithstanding cross-country differences, investment as a whole has been too low, too heavily tilted toward the public sector, too highly dependent on external influences, and less productive than in many other regions. Improving the region's investment performance is critical if policymakers are to succeed in increasing the region's economic growth rate. After discussing the relationship between investment and growth, the paper analyzes the investment responsiveness of various countries in the region and notes the policy priorities for strengthening the basis for rapid and sustained economic growth.

**JEL Classification Numbers:**

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<sup>1</sup>This paper was prepared while Mahmoud El-Gamal--currently at the University of Wisconsin--was an economist in the Middle Eastern Department of the IMF. A summary of this paper is to appear in IMF (forthcoming). All views expressed, and errors made, are those of the authors and not of the institutions with which they are affiliated.

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## Summary

Improving growth performance is the major economic policy challenge facing the countries of the Middle East and North Africa (MENA). Since these countries' external environment is expected to remain broadly neutral over the medium term with significant downside risk, sustained economic growth will have to depend primarily on domestic policy efforts. Improving the region's investment performance--in both human and physical assets--is an important determinant of its ability to grow. While there are important differences between countries, investment levels for *the region as a whole* have been low--both in absolute terms and relative to other developing country regions. Investment in the region has also depended too heavily on the public sector and on external influences.

To meet the growth challenge, MENA must improve its investment performance--by investing more and increasing the return on investment spending. This will also encourage higher inflows of foreign direct investment. The variation in performance within the region reflects a number of factors: MENA economies facing severe conflicts and dislocation have tended to invest little and possessed an unresponsive investment function. The end of hostilities in most such countries should serve as an opportunity for the governments to implement policies necessary for improving investment responsiveness. At the other extreme, growth in MENA economies is coupled with a responsive investment function, thus promising sustainable growth. In between the two extremes lie most of the MENA countries, several of which have failed to devote sufficient portions of their output to investment. For all three groups of countries, maintaining a sound investment performance will depend on stable macroeconomic conditions, accelerating structural reforms, investing more effectively in the social sectors, and strengthening the institutional base.

## I. INTRODUCTION

Sustained high growth is needed to improve living standards, reduce unemployment, and provide jobs for the growing labor force. During the 1970s and early 1980s, important stimuli for growth were provided by favorable developments in the Middle East and North Africa's (MENA) external environment. This was no longer the case in the late 1980s and early 1990s and the region's per capita income stagnated. Looking forward, the external environment is expected to remain broadly neutral with significant downside risk. Sustained economic growth will therefore depend primarily on domestic policy efforts.

Improving the region's investment performance--in both human and physical assets--is an important determinant of its ability to grow. The investment challenge facing the MENA region is not an easy one. While there are important differences between countries in the region, investment levels for *the region as a whole* have been low--both in absolute terms and relative to other developing country regions. The composition of investment has remained heavily tilted toward the public sector, consistent with the dominant role that the government has tended to play historically in a number of countries. Investment activity has also been heavily dependent on external influences, particularly fluctuations in international oil prices. These factors have also contributed to low inflows of foreign direct and portfolio investment to most MENA countries.

Recent efforts to improve the investment environment in MENA countries reflect policy makers' awareness of the importance of enhancing fixed capital formation and human resource development. This paper seeks to contribute to this ongoing effort. It is organized as follows: Section II reviews briefly the growth and investment performance in the MENA region, discussing trends at the aggregate level as well as important differences among economies in the region. Section III reviews the literature on the determinants of investment with a view to identifying the key inter-relationships between investment and growth. Section IV implements an empirical methodology in an attempt to explain differential investment behavior within the region. The econometric exercise distinguishes between MENA countries based on their investment responsiveness and capital-output ratios. Section V draws out the policy implications. The paper's concluding remarks are contained in Section VI.

## II. GROWTH AND INVESTMENT IN MENA--AN OVERVIEW

### A. The growth picture

The current emphasis in MENA on growth and investment has a lot to do with policy makers' desire to reverse the disappointing economic performance of the late 1980s and early 1990s. After sustaining an annual average real growth rate of nearly 5 percent in the 1970s and first half of the 1980s, the region's growth nearly halved and lagged behind population

growth rates.<sup>2</sup> As a result, per capita income in 1995 is estimated to have been 4 percent below its level a decade earlier (Chart 1)--this during a period when the per capita income of developing countries as a group rose by 40 percent and that of the fast growing countries of East Asia by 80 percent. The combination of improved policy implementation, higher international oil prices, as well as better weather conditions in North Africa is contributing to a pick up in growth in 1996 and the prospects of the first year of positive per capita income since 1992.

Like other regions, there were significant variations among countries' growth performance in the MENA region. In the energy-exporting economies,<sup>3</sup> the large international oil price increases of 1973 and 1979 provided an important stimulus to growth. Many of the other countries in the region experienced positive spillover effects, principally as a result of remittance flows and receipt of financial assistance. These countries were also positively impacted by international developments, including high demand for labor in European countries and higher availability of external financial assistance. Those economies' early growth was also reflective of heavy investment by the public sector, typically in import substitution activities.

Since the early 1980s, there has been a sharp reduction in the real price of oil. The spillover effects from the oil- to the non-oil economies worked in a contractionary manner at a time when labor demand subsided in the region's major external markets. Concurrently, the return from the earlier investment surge were declining rapidly, leaving many MENA non-oil economies with a growing problem of external indebtedness, financial imbalances, and an aging capital stock.

Looking forward, most analysts agree that current prospects are that MENA's external environment will not provide a major stimulus to growth.<sup>4</sup> Notwithstanding the recent rise, the outlook for international oil prices is a subdued one, with significant downside risk. The high unemployment in European countries is likely to limit demand for labor flows from the MENA region. Finally, the outlook for official bilateral assistance is uncertain as donors and creditors face their own budget consolidation issues. Accordingly, the region's growth stimulus will need to come through appropriate domestic policies. Indeed, the main challenge facing the regions' authorities today is to implement policies aiming at spurring growth and,

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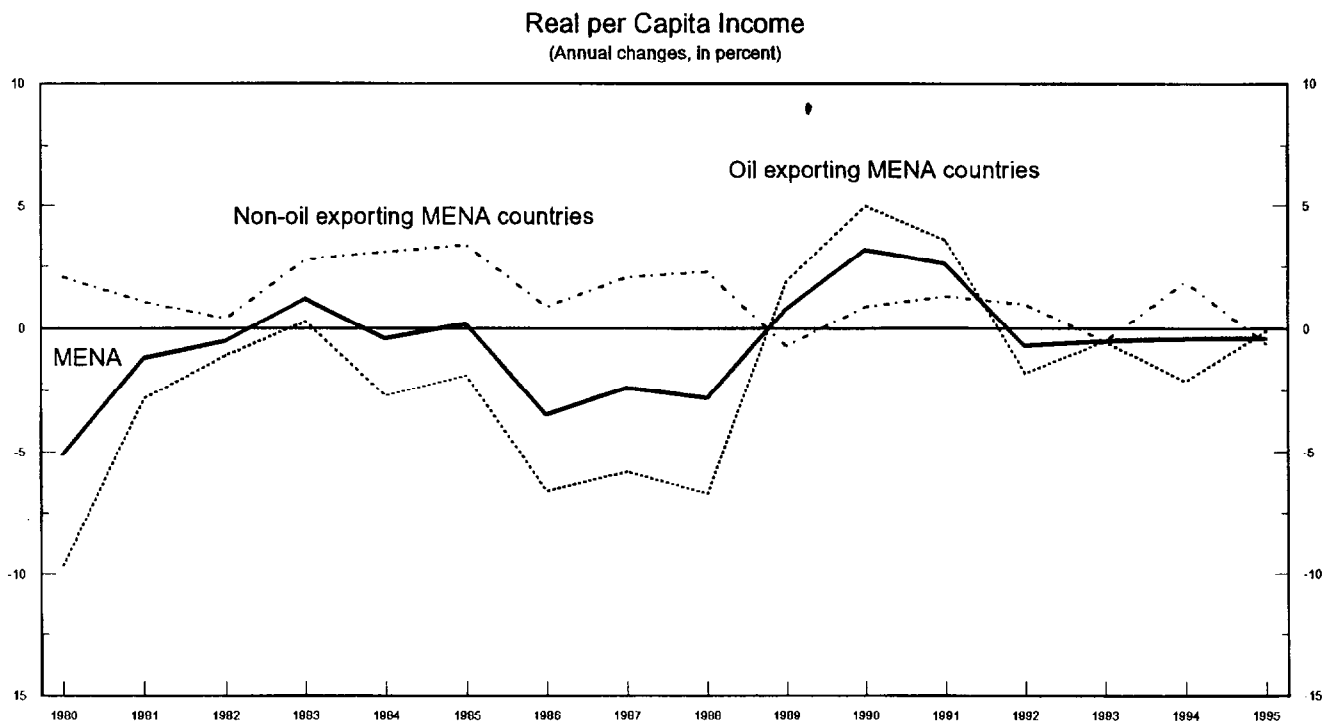
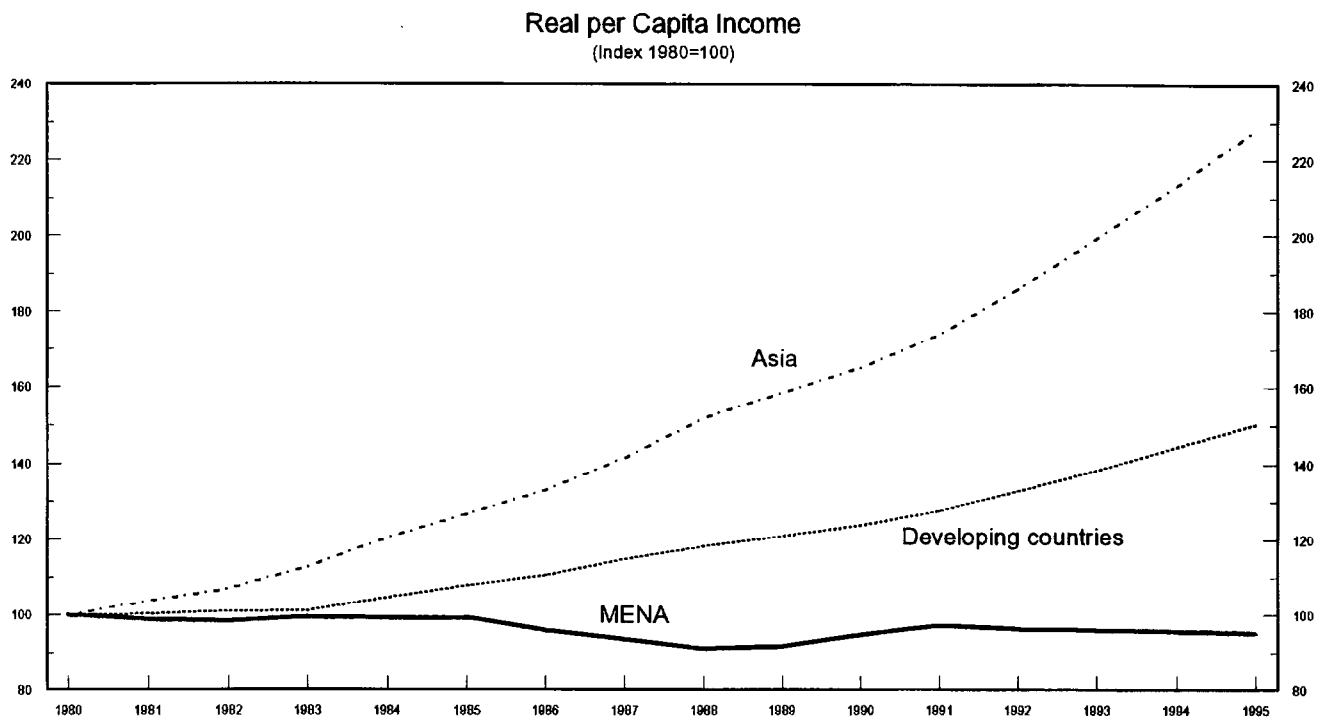
<sup>2</sup> Even within the latter period, the years 1989-92 witnessed somewhat higher growth rates reflecting the end of three conflicts: the Iraq-Iran war, the conflict triggered by Iraq's invasion of Kuwait, and the Lebanese civil war.

<sup>3</sup> Defined to include the six members of the GCC (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates), Algeria, Islamic Republic of Iran and Libya.

<sup>4</sup> See, for example, El-Erian (1996).

Chart 1

MENA Region. Growth Indicators, 1980-95



more generally, raising general living standards. The crucial step in meeting this challenge is to increase both the level and efficiency of the region's capital.

### **B. The investment picture**

Like the growth performance, MENA's investment performance weakened in the latter part of the 1970-95 period. Specifically, after growing sharply in the 1970s, gross fixed capital formation (as a percent of GDP) has hovered just above 20 percent since the early 1980s--a level that is lower than the average for developing countries (over 24 percent in 1995) and sharply lower than the ratios prevailing in the fast growing Asia region (nearly 30 percent) (Chart 2).

As with growth, there were significant differences in investment behavior within the region. Governments in the oil-economies channeled surpluses from oil exports into infrastructure, basic social services, and (over time) industrial activities. Investment expenditures in the oil countries were badly hit in the recession that ensued: investment expenditures in 1995 were nearly 6 percentage points of GDP below their peak in the early 1980s. The cyclic pattern of investment was even sharper in the non-oil countries. There, a period of very high investment (mostly by the public sector) ended in the early 1980s, and was followed by a period in which the rate of capital accumulation fell by more than 10 percentage points of GDP between 1982 and 1995. Investment rates in both regions have recently converged with both oil and non-oil economies currently spending a fifth of their output on investment.

Public sector investment has continued to dominate fixed capital formation in the MENA region where it presently accounts for approximately half of total investments--the highest share among developing countries and one that international experience suggests is suboptimal (Chart 3).<sup>5</sup> As a ratio to GDP, public investment in the MENA region is among the highest in the world: after peaking at more than 16 percent in 1982, the ratio has declined to around 10 percent at present; however, even the latter ratio is sharply higher than that prevailing in developing countries (hovering around 6 percent since the late 1980s). While public investment in Asia is somewhat high (ranging between 7 and 8 percent), it tends to be mostly in basic social services and human development.

Meanwhile, private sector investment expenditures in the MENA countries (at around 10 percent of GDP since the early 1990s) remain lower than the average for developing countries (at around 17-18 percent over the last few years) and significantly below the average in the Asia region (at around 21-22 percent during the last few years). It is worth noting, however, that the ratio of private sector investment to GDP in the MENA region had edged upwards in the first half of the 1990s although the increase is accounted for by a small number of countries, most notably Iran and Tunisia.

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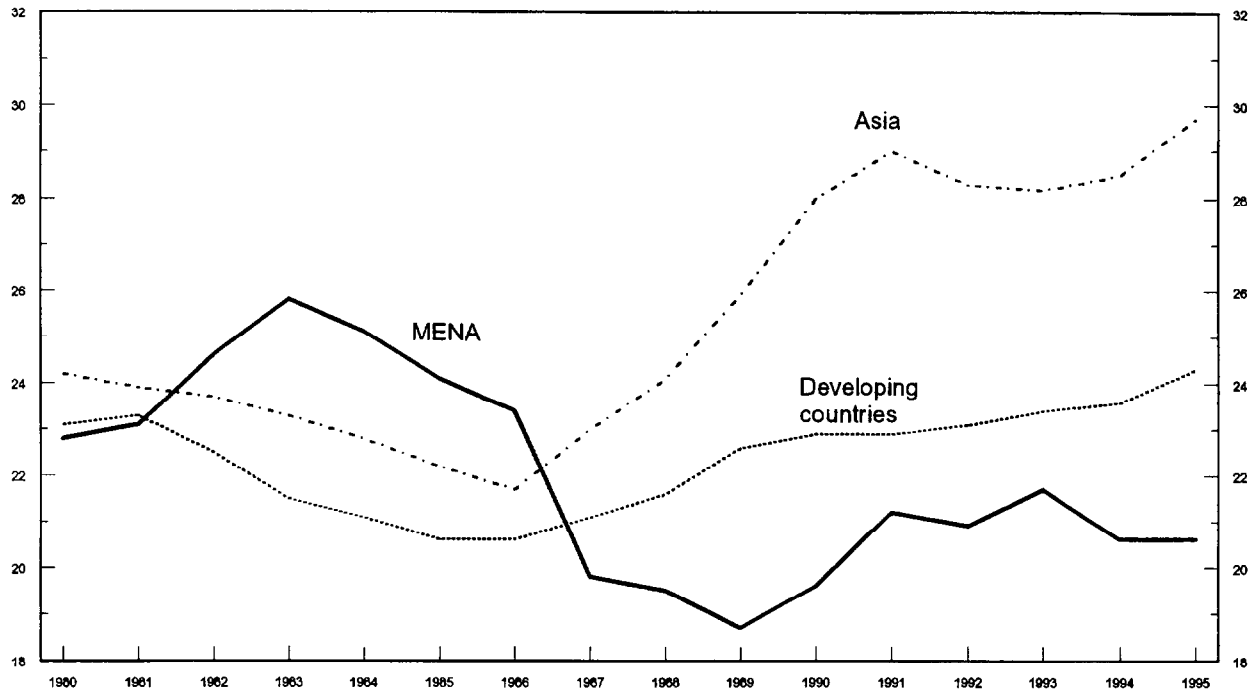
<sup>5</sup>See, for example, World Bank (1991).



Chart 2

**MENA Region. Gross Fixed Capital Formation, 1980-95**  
(In percent of GDP)

**International Comparisons**



**Inter-MENA Regional Comparisons**

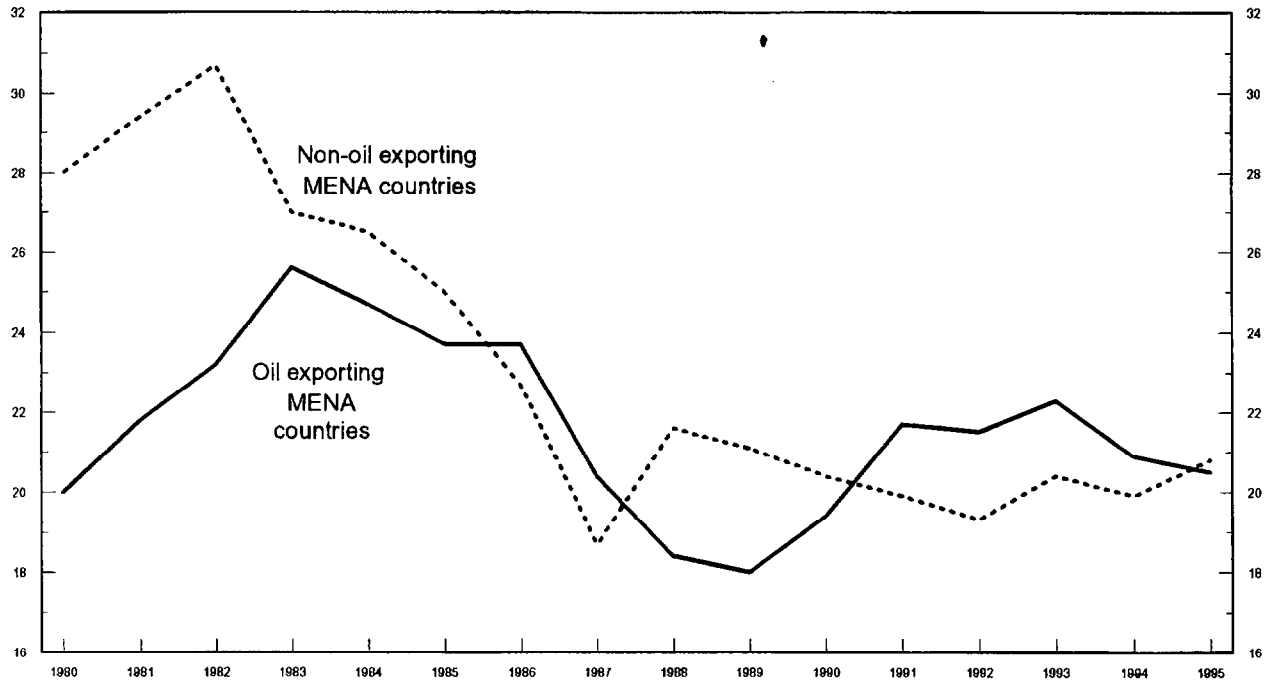
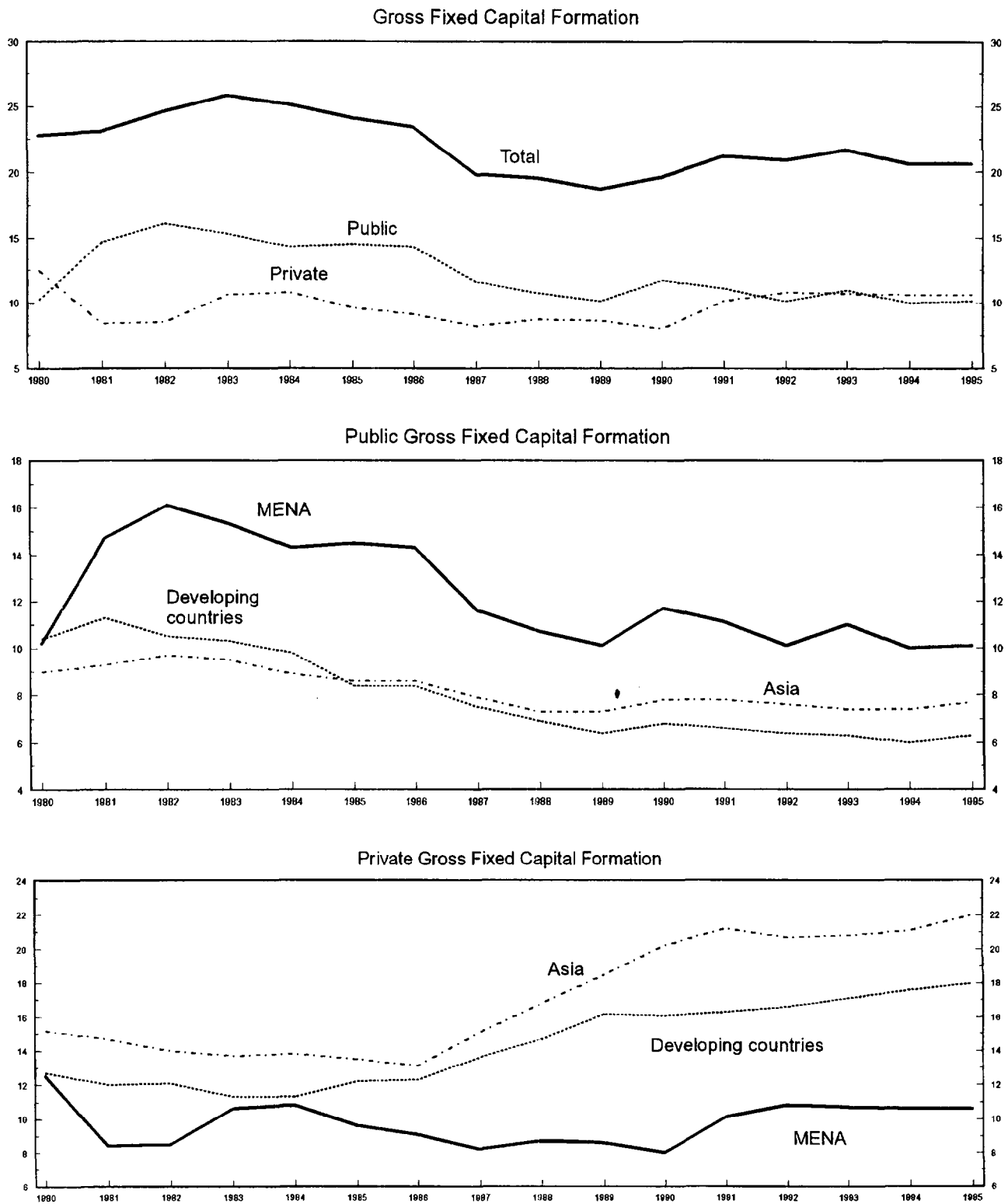


Chart 3

**MENA Region. Public versus Private Investment, 1980-95**  
(In percent of GDP)



Source: World Economic Outlook.

Consistent with low levels of domestic investment, the region has attracted only modest amounts of foreign direct investment (FDI), a significant share of which was concentrated in the energy sector.<sup>6</sup> Since the mid-1980s, the ratio of FDI to GDP has ranged between 0.5 and 0.75 percent annually--rates that are significantly below those in fast-growing developing countries (Chart 4). For comparison, the Asia region has for years attracted FDI flows equivalent to more than 1 percent of GDP per year, while in the Western Hemisphere region, the pattern is more recent but no less evident.

Not only has the level of MENA investment been modest by international standards, and well below the aspiration of policy makers, its efficiency also appears to have been low. The incremental-capital-output-ratio in the MENA region has turned much higher than that in other regions (Chart 5). More significant, perhaps, the trend in such an indicator has deteriorated, confirming the findings of a number of sector specific studies.

Low capital efficiency in the region is to some extent associated with the pattern of large public capital expenditures. While most MENA governments provide infrastructure services to households in quantities analogous to, or even higher than countries with similar incomes, the quality of such services is low.<sup>7</sup> In addition, while MENA countries devote a greater share of their national income to education than any other region in the world, the emphasis on higher education (as opposed to basic education or vocational training), and the (demography-induced) deteriorating quality of education have resulted in, inter alia, low completion rates, high unemployment among graduates, and low labor productivity.<sup>8</sup>

### **C. Putting it all together**

MENA faces an important economic growth challenge. Meeting it will determine MENA countries' ability to increase living standards, reduce unemployment, and provide jobs for the growing labor force. Countries cannot look to their external environment to meet this challenge. Rather, they must rely on enhancing the domestic contributors to growth through the implementation of appropriate policies. Improving investment performance is essential in this regard. What is needed is to increase the level of investment (both in human and physical capital), enable the domestic and foreign private sectors to play more of a leading role, and improve the return from a given dollar of investment spending in the region.

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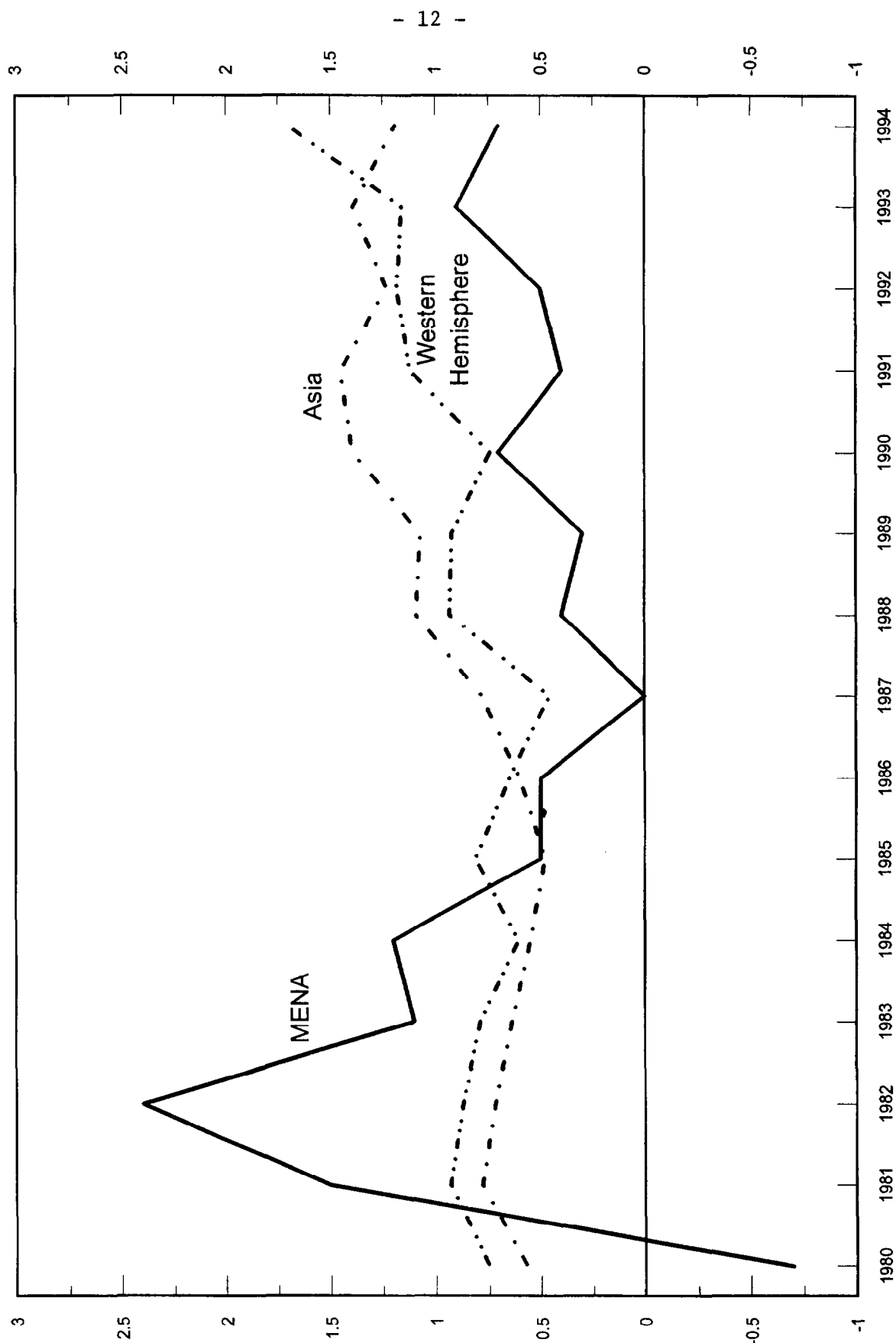
<sup>6</sup> This extended to other forms of private capital flows; see El-Erian and Kumar (1995).

<sup>7</sup> See World Bank (1995) for indicators.

<sup>8</sup> Shafik (1994).

Chart 4

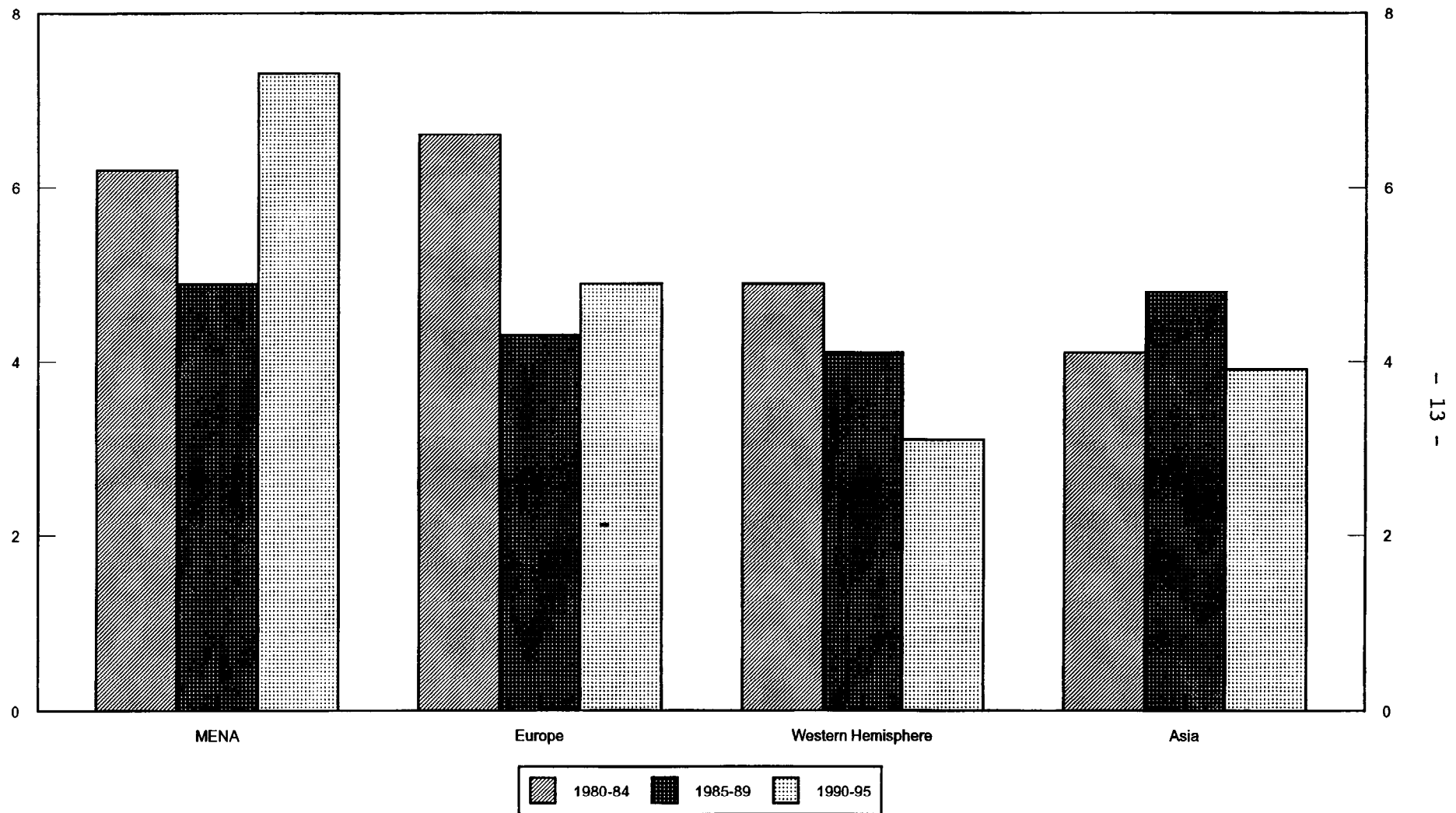
Foreign Direct Investment, 1980-94  
(In percent of GDP)



Source: World Economic Outlook.

Chart 5

Average ICOR for Selected Countries; 1980-95



Europe: Cyprus; Israel; Turkey. MENA: Egypt; Jordan; Morocco; Tunisia. West. Hem: Chile; Costa Rica; Columbia; Mexico.  
Asia: China; India; Indonesia; Korea; Philippines; Singapore; Thailand; Taiwan.

### **III. INVESTMENT DETERMINATION: A SELECTIVE REVIEW OF THE LITERATURE**

What are then the factors contributing to a better investment performance? To answer this question, we turn our attention to some of the key theoretical and quantitative studies that have sought to document the factors influencing investment (both domestic and foreign) and its relationship with growth--this with a view to providing insights into the conditions for meeting MENA's investment challenge. Specifically, this section provides the framework for Section IV's empirical analysis of the key elements behind MENA's experience reviewed in the previous section.

#### **A. The determinants of investment**

In its most comprehensive coverage, investment includes the accumulation of physical capital--such as buildings, equipment, and inventories--as well as human and other intangible forms of capital. While it typically accounts for a relatively small portion of GDP, economists and policy makers place extreme emphasis on investment expenditures (Chirinko (1993) and Berndt (1991)). Why? At least three reasons may be cited:

- First, since physical and human capital represent the critical input in the production process, investment constitutes an important engine of growth and employment.
- Second, investment spending is also the vehicle through which advanced technologies--central to the growth process--get incorporated into an economy.
- Finally, since investment spending tends to be the most volatile component of aggregate demand (often accounting for a significant portion of changes in real output), understanding its behavior is necessary for explaining business cycles.

Most theories of investment behavior are based on a fairly simple notion. At any point in time, firms decide on the "optimal" *stock* of capital that they desire to possess. According to most models described below, the decision regarding the optimal level of capital depends on price variables (e.g., interest rates), quantity variables (e.g., output), and autonomous factors (e.g., "animal spirit" and technology shocks). Subsequently, the models try to explain how, and how fast firms move from the "current" level to the "optimal" level of capital stock. It is this adjustment (i.e. the *flow* demand) that comprises investment expenditure.

Regardless of the degree of sophistication of optimal stock of capital theories, models of the adjustment from the current to the optimal capital stock tend to lack a good theoretical underpinning. While simple adjustment models (based on the idea that adjustment is costly) can be easily derived, their integration into optimization models to solve for investment flows has proved much more difficult.

Following Berndt (1991), there are six principal approaches for explaining the determinants of investment: the accelerator principle, the flexible accelerator principle, the neoclassical approach, the cash flow approach, Tobin's q model, and the time series approach.

The **accelerator principle** dominated the early literature on investment behavior in the 1950s and 1960s. The original idea dates to Clark (1917) and is based on a stable optimal capital-output ratio. According to this approach, as output exogenously increases, firms immediately raise their capital stock (i.e., invest) sufficiently to ensure that the capital-output ratio remains unchanged. The principle has several weaknesses. For one thing, other variables (such as prices, taxes, and interest rates) affect investment. In a similar vein, the model lacks a clear theory of the determinants of the optimal capital-output ratio. The model also postulates that the capital stock instantaneously adjusts to its optimal level--an unrealistic assumption given the high cost of adjustment and the time lag necessary for acquiring capital goods. Finally, the model does not fit many empirically observed facts: for example, the estimated capital-output ratio tended to be much lower than the observed ratio, and firms invest also when there is excess capacity.

To address some of these weaknesses, the **flexible accelerator principle** postulates that firms do not immediately adjust their current capital stock to the optimal level due to uncertainties and various adjustment costs. Once a "shock" to output occurs, firms *gradually* adjust their level of capital with an eye to eventually re-establishing the optimal capital-output ratio. Because capital adjusts only slowly, a change in output today has an impact on investment for years to come; moreover, as the rate of output change increases, investment accelerates--hence, the model's name. While the model can be easily estimated, reliable data on the capital stock tend to be difficult to collect or even estimate. To deal with this problem, Koyck (1954) assumed an explicit relationship between investment and capital, namely that capital adjusts to its optimal level by a constant fraction of the existing gap. This approach, used in the current paper, overcomes the need for data on the capital stock.

Jorgenson (1963), and several other authors, sought to establish a stronger theoretical base by using "first principles" to derive investment functions. This **neoclassical approach to investment** is based on optimizing behavior by firms; it also moves away from the restrictive assumption that production can not substitute between capital and labor (i.e., away from the fixed capital-output ratio assumption). According to the approach, firms invest until the marginal product of capital is equal to its real user cost. By introducing an explicit production function, the model is able to derive a reduced form relating the desired stock of capital to interest rates, the level of output, the price of capital goods, and tax policies (which affect the user cost of capital).

The main limitation of the neoclassical approach is that it provides a framework to identify the optimal stock of capital but not the optimal level of investment; as mentioned above, the adjustment specifications typically assumed in the literature do not have clear theoretical underpinnings. In addition, the approach rests on the questionable assumption of

perfect capital markets. Finally, estimating the model is complicated by difficulties encountered in finding proper measures of the user cost of capital and relevant interest rates, and in incorporating the effect of changes in the tax regime. As a result, the approach has proved difficult to test empirically.

The **cash flow approach** postulates that investment is affected by the availability of internal funds, which in turn hinges on profits. Since the net present value of a firm's future profitability is (theoretically) equivalent to its market price, investment decisions become a function of the firm's external value. However, since capital market imperfections tend to distort firms' valuation, the approach postulates that investment decisions are affected by a liquidity-type variable (e.g., the firm's cash flow).

Tobin's (1969) "**q**" theory postulates that a firm should continue investing so long as the cost of investment is lower than the expected future profitability from that investment--the net present value of the latter being the investment's market price. Accordingly, "q" is defined as the ratio of the firm's market value to the cost of the firm's plant and equipment. A firm would invest so long as its market value exceeds the cost of the investment (i.e., q is greater than 1). In that sense, the q-theory assumes that stock prices signal capital productivity and future profitability. The empirical implementation of the q-theory is complicated by difficulties in measuring the replacement value of the firms' assets (including intangible assets such as brand reputation), and the market value of a firm (including its untraded liabilities).

The **time series approach** to investment limits itself to regressing investment on its past values. The specification most commonly used is an autoregressive process. This approach is criticized for its lack of theoretical foundations, and because the assessment of the effects of changes in economic policies on future investment paths may not be very apparent.

These six models agree that decisions to accumulate capital, as well as the speed with which such accumulation is carried out relate to a firm's expectation of the future return on its investment and, therefore, further output developments. While those prospects are partly determined by a firm's own activities, they are crucially dependent on the policy environment in which the firm is operating. Indeed, the literature emphasizes that investment (including FDI) is more effective when associated with appropriate economic policies.

## **B. Investment and growth**

Going from the micro to the macro, one of the most important issues raised by the literature on investment is the nature of the relationship between investment and economic growth. Several "growth accounting" exercises have shown that the mere accumulation of additional units of physical capital (and increases in labor) fail to explain substantial parts of



economic growth.<sup>9</sup> Similarly, some countries have posted significant economic growth rates despite having invested less than other countries with lower output growth.<sup>10</sup>

A vast literature has recently emerged aiming at examining the above "paradox". The "endogenous growth" literature focuses on forces within the economy able to generate continuous economic growth. Among other areas, the literature has tackled the question of whether investment performance can be related to countries' efforts to invest in education and accumulate human capital.<sup>11</sup>

Lucas (1988), Romer (1990), and Stokey (1991) observed that improvements in abilities and skills generate a positive externality by expediting technological advancements in the whole economy thus improving general productivity and growth. The conclusion is that investment in education can result in greater output from an unchanged stock of physical capital, or could allow higher rates of return from the same stream of investment.<sup>12</sup> Several studies also find that human capital plays an important role in explaining the accumulation of physical capital and its catalytic role in fostering economic growth.<sup>13</sup> The endogenous growth literature has also formalized an intuition which carries major policy implications: investment in physical capital is more effective when associated with strong "enabling" factors such as macroeconomic stability, a conducive structural environment, an adequate institutional setting, a skilled labor force--issues that are taken up in Sections IV and V.

The literature stresses in particular the relationship between macroeconomic conditions and investment decisions.<sup>14</sup> Indeed, there are a number of channels through which macroeconomic instability--typically manifested through unsustainable fiscal and monetary

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<sup>9</sup> For example, Denison (1974) found that only about 50 percent of output growth in the United States can be attributed to input accumulation.

<sup>10</sup> See Girard and Hurst (1994).

<sup>11</sup> In an earlier work, Becker (1975) investigated the returns to individuals' investment in education in the United States, and showed that the desired level of education is selected on the basis of its expected return, the time and the effort spent studying, and the related expenses. In general, workers with higher education are more productive and receive higher wages.

<sup>12</sup> Jorgenson and Fraumeni (1991) found that the overwhelming portion of economic growth in the United States is due to combined investment in human and physical capital, and that investment in education dominates any other type of investment.

<sup>13</sup> However, there are only few studies that would concede that human capital per-se has a statistically significant effect on economic growth.

<sup>14</sup> See Shaalan (1990), Chibber et al (1992) and Fischer (1993).

policies--inhibits private investment. While clearly interrelated, the channels are discussed separately below.

*Inflation*, especially at very high and variable levels, distorts relative prices, creates uncertainty, and contributes to inefficiencies in the allocation of resources. Empirical studies have shown that countries with high and variable inflation rates invest (and grow) less rapidly than countries with low inflation.<sup>15</sup> In addition, the combination of inflation and exchange rate fixity results in deviations between current and equilibrium real exchange rates. While an overvalued exchange rate lowers the relative cost of imported capital (thus encouraging investment), it also erodes a firm's competitiveness and productivity. Empirical evidence indicates that while the former effect may dominate in the short run, overvaluation tends to have harmful effects on investment in the long run.<sup>16</sup>

Macroeconomic instability often results from unsustainable management of *government finances*. This usually translates into high financing needs by the government and a "crowding out" of private investment. In addition, in the face of large government financing needs, governments sometimes resort to administratively channeling credit, adding to the risks of resource misallocations. Experience suggests that preferential access to (cheap) credit is usually provided to large inefficient enterprises; smaller and more dynamic firms tend to be rationed out.

*Public investment* plays an important role in private sector investment decisions. The literature distinguishes between "complementary" public investment (i.e., those that "crowd in" private investment by rendering them more profitable; e.g., infrastructure, education and health), and "competitive" public investment (i.e., those that "crowd out" private investment; e.g., public enterprises in many manufacturing sectors).<sup>17</sup> The challenge for policy makers is to strike the right balance. While too low a level of "complementary" public investment is suboptimal, too high a level is also inefficient insofar as it would need to be financed through higher taxation. In addition, while there is no *a priori* reason to believe that "competitive" public investment is less efficient than the equivalent private sector undertaking, there is considerable empirical evidence pointing to the propensity for higher inefficiency among public enterprises.<sup>17</sup>

Another channel through which macroeconomic variables impact investment decisions relates to *uncertainty and policy credibility*. Investments are long-term decisions that require a minimum level of forecasting clarity: firms are reluctant to invest in an environment in which the stance of future policies is unclear or not credible.

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<sup>15</sup>See, for example, IMF (1982).

<sup>16</sup>See, for example, the case studies included in Chibber et al (1992).

<sup>17</sup>See, for example, Wall (1990).

### **C. Capital mobility and foreign direct investment (FDI)**

The literature on investment and growth has also emphasized the incremental role of (FDI).<sup>18</sup> FDI's importance derives from the fact that it often involves a transfer of advanced technologies and management techniques--inputs central to the development process. The effectiveness of FDI has also been shown to depend on a stable macroeconomy. Other factors include an environment conducive to private sector activity; the existence of a relatively flexible, technically knowledgeable, and professionally skilled labor force; a proper institutional setting; a satisfactory legal framework that ensures secure property rights; and a stable and efficient financial system.

In theory, the distinction between domestic and foreign sources of investment financing is irrelevant as both would compete over an investment project with a positive rate of return. However, Feldstein and Horioka (1980) found a very significant correlation between domestic saving and investment (almost close to unity).<sup>19</sup> The so called "Feldstein-Horioka paradox" seemed to indicate that capital mobility is lower than what was commonly believed--a worrisome finding for the prospects of investment and economic growth as countries with a need of funds would seem unable to easily tap on "foreign savings." In addition, with low capital mobility, public expenditures are likely to crowd out private investment, and domestic monetary and fiscal policies are more likely to alter the real rate of return on domestic capital.

Shortly after the publication of the Feldstein-Horioka findings, Sachs (1981) presented empirical evidence showing that surges in domestic investment are associated with current account deficits. This implies that increases in domestic investment are partly financed by inflows of capital, and that capital mobility may be in fact significant. While this finding is seemingly in contrast with those of Feldstein and Horioka, the main message of both studies is that strong fundamentals that generate high domestic investment also attract large capital inflows.

### **IV. EMPIRICAL INVESTIGATION OF INVESTMENT BEHAVIOR IN MENA**

Having reviewed the main elements of the investment literature, this section provides an empirical investigation of investment behavior in MENA countries. Specifically, it seeks to

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<sup>18</sup>See, for example, Borensztein, et al (1994).

<sup>19</sup>This high correlation was confirmed by a number of other studies. These studies suggested that capital mobility may be reduced, inter alia, by: (i) risk considerations which diminish the substitutability of domestic and foreign stocks and bonds. Therefore, the return to capital does not need to be equalized across countries; (ii) institutional barriers such as tariffs and differences in national tax systems; and (iii) comparable effects of economic policies on saving and investment.

assess the different degree of responsiveness of MENA countries' investment expenditures to gaps between actual and desired levels of output over the period 1980-94. Among the issues covered, we consider the factors that are common to the countries in the region with relatively more responsive investment behavior, and that are missing in countries with relatively less responsive behavior. For this purpose, the empirical exercise first considers the responsiveness of investment followed by the distinguishing characteristics of the various groups of countries.

### A. The approach

There is no simple way to cluster countries on the basis of their investment responsiveness. Using investment to GDP ratios or rates of growth of investment provides an overly partial picture which is also sensitive to the starting base (e.g., investment/GDP ratios may--ceteris paribus--be higher the lower the GDP, and it is easier to grow from a lower base). For this reason, the approach taken in this paper is to estimate econometric models of the determinants of investment in the various countries, and group them by the responsiveness of investment to the presumed determinants.

Like other work on developing countries, the design and implementation of the econometric exercise had to take into account data limitations. As seen in Section III, most investment models require for their empirical estimation data on variables such as the capital stock, cost of capital, and stock market data. Those data are generally unavailable for all MENA countries. In addition, reliable data on private investment for the period under consideration (1980-1994) were also generally missing. As a result, the econometric study of the determinants of MENA investment had to be limited to models which only require data on total investment and income; the latter series being available for most, but not all countries in the region.<sup>20</sup>

One of the very few models of investment determination which can be estimated with data on output and investment is the simple flexible accelerator model of Koyck (1954). This model inherits the standard linear technology specification of the naive accelerator model by setting the optimal capital stock at  $K^* = m Y_t$ , and setting net investment as a proportion of the gap between the desired and actual capital stocks:  $I_{it} = l (K^*_t - K_t)$ . Assuming a constant rate of depreciation of capital, simple substitution yields the following reduced form for estimation:

$$I_{it} = a_{i1} Y_{it} - a_{i2} Y_{i,t-1} + a_{i3} I_{i,t-1} + u_{it},$$

where:  $I_{it}$  is gross nominal investment,  $Y_{it}$  is nominal GDP, for country  $i$  at time  $t$ ,  $m$  is the capital-output ratio, and  $l$  is the coefficient of adjustment between the actual and optimal capital stock. The residuals  $u_{it}$  are assumed to follow the autoregressive process:

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<sup>20</sup>Some MENA countries were excluded altogether from the sample due to systematic data limitations.

$$u_{it} = b_i u_{i,t-1} + e_{it}$$

with  $e_{it}$  is independently and identically distributed normally, with mean zero, and standard deviation "s."<sup>21</sup> The estimated reduced form parameters are related to the speed of adjustment of the capital stock to changes in output; to the capital-output ratio; and to the depreciation rate. The exact relationships will be defined later in this section and used to provide an economic interpretation of the parameter estimates.

Rather than rely on separate estimates of the investment equation for each country, the approach taken here is to cluster countries and identify differences that systematically distinguish countries with good investment responsiveness from those with poorer investment responsiveness. The use of fixed effects or other standard means of capturing heterogeneity across the countries (e.g., including dummy variables for oil-exporting countries, etc.) limits the ability to find systematic factors which contribute to better investment responsiveness, and bias our results towards pre-conceived factors. Accordingly, the approach uses the Estimation-Classification (EC) algorithm of El-Gamal and Grether (1995, 1996) which consistently estimates the number of groups in our panel, the parameters for each group, and the classifications of countries to the appropriate groups. In other words, if the true number of types in our sample of 20 countries were  $k$ , then the true parameter vector --  $p_i = (a_{i1}, a_{i2}, a_{i3}, b_i)$  -- for country  $i$  can take on one of  $k$  possible values. The EC algorithm will consistently estimate the  $k$  vectors  $(p_1, \dots, p_k)$ , and, as the number of time series observations gets large, consistently assigns each country  $i$  to the proper group.

## B. The empirical results

In order to facilitate the interpretation of the empirical results, this sub-section begins with a brief description of the economic interpretation of the estimated parameters  $(a_1, a_2, a_3, b, s)$  under the accelerator model. The parameter  $a_3$  is defined as one less the speed of adjustment of investment to the deviation between the actual and desired capital stocks. Therefore, a high value of  $a_3$  reflects a slow adjustment of investment toward the desired capital stock, and vice versa. The parameter  $a_1$  is the product of the adjustment parameter  $(1-a_3)$  and the capital-output ratio. Therefore, if  $a_1$  is significantly lower than  $(1-a_3)$ , that would reflect a low capital-output ratio, and vice versa. The parameter  $a_2$  is equal to  $a_1$  multiplied by

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<sup>21</sup> Variable  $I$ , real aggregate investment, is computed using nominal aggregate investment and either the investment deflator (available in very few cases) or the GDP deflator. Variable  $Y$  is defined as real GDP. The serial correlation in the residuals of the investment equation are theoretically explained by the autocorrelation of economic variables missing from the equation, and is empirically justified by the findings of many studies (see Berndt (1991) for a detailed survey). The presence of lagged dependent variables and serially correlated residuals makes ordinary least squares estimates biased and inconsistent. Since the estimation/classification procedure used works naturally with likelihood functions, the above equation is estimated by jointly maximizing the likelihood function over  $(a_1, a_2, a_3, b, s)$ .

one less the rate of depreciation of the capital stock. In other words, if  $a_2$  is significantly lower than  $a_1$ , that would reflect a large depreciation rate, and vice versa. The parameter  $b$  measures the sign and degree of autocorrelation of the residuals containing omitted economic variables which contribute to the determination of the level of investment. Finally, the parameter  $s$  measures the amount of purely unexplained variation in total investment. Since all data are scaled to minimize differences in variation due to, inter alia, the size of the country, a high value of  $s$  simply reflects idiosyncratic behavior of investment, and a low value indicates systematic behavior, at least as measured by our simple flexible accelerator model.

The estimation-classification exercise yielded three types of countries with the following estimated investment equations (standard errors for parameter estimates are listed in parentheses):

**Group I:** Iran, Kuwait, Lebanon, Mauritania, Oman, Somalia, Yemen.

$$I_{it} = 0.108 Y_{it} - 0.069 Y_{i,t-1} + 0.782 I_{i,t-1} + u_{it},$$

(0.057)      (0.057)      (0.079)

$$u_{it} = -0.112 u_{i,t-1} + e_{it}; s = 7.604.$$

(0.125)      (0.564)

**Group II:** Bahrain, Libya, Morocco, Qatar, Saudi Arabia, Sudan, Syria, U.A.E.

$$I_{it} = 0.096 Y_{it} - 0.069 Y_{i,t-1} + 0.848 I_{i,t-1} + u_{it},$$

(0.018)      (0.021)      (0.041)

$$u_{it} = 0.014 u_{i,t-1} + e_{it}; s = 2.050.$$

(0.106)      (0.142)

**Group III:** Algeria, Egypt, Israel, Jordan, Tunisia.

$$I_{it} = 0.365 Y_{it} - 0.278 Y_{i,t-1} + 0.616 I_{i,t-1} + u_{it},$$

(0.071)      (0.087)      (0.138)

$$u_{it} = 0.331 u_{i,t-1} + e_{it}; s = 3.276$$

(0.185)      (0.287)

In light of the preceding interpretations of the estimated parameters under the flexible accelerator model, the three country groupings may be characterized as follows:

	Group I	Group II	Group III
Speed of adjustment (percent)	21.8	15.2	38.4
Capital/output ratio (percent)	49.5	63.2	95.1
Depreciation factor (percent)	36.1	28.1	23.8
Idiosyncratic factor	7.6	2.1	3.3

**Group I** countries display a slow response of investment to the gap between desired and actual capital stocks, a low capital-output ratio, a very high rate of depreciation of capital, and a very idiosyncratic behavior of investment (high  $s$ ).

While **Group II** countries show a relatively slow speed of response to gaps between actual and desired capital stocks, they display more systematic behavior than Group I (lower  $s$ ), a higher capital-output ratio, and a lower rate of depreciation of capital.

Relative to the other two sets of countries, **Group III** countries are characterized by a fast speed of response to gaps between desired and actual capital stocks, a much higher capital-output ratio, a relatively slow rate of capital depreciation, and systematic investment behavior under the model (i.e., reasonably low estimate of  $s$ ).

### C. Interpreting the results

The analysis of Section II suggested that MENA countries as a group face the challenge of both increasing the level and efficiency of their investment outlays--this with a view to growing in a faster and more sustainable manner. The differences within the MENA grouping which are likely to impact on the ability to meet this challenge are discussed in the next subsection. Prior to that, however, it may be worthwhile providing a conceptual overview of how to interpret the empirical results cited above.

We start by noting that a high *capital-output* ( $K/O$ ) ratio signifies that a country has, most likely, invested significantly in the past thus accumulating a large capital stock which could be used to generate additional future output; moreover, a country with a high  $K/O$  ratio has tended to use more capital intensive methods of production which--it is assumed--are more productive. However, a high  $K/O$  ratio alone is not a sufficient condition for sustainable growth; the efficiency of capital use is at least as important.

Turning next to the concept of *investment responsiveness*, we note the simple but important observation that high investment responsiveness is not necessarily a "good" thing; much depends on the economy's output performance. For example, an economy experiencing a combination of significant output growth **and** high degree of investment responsiveness is likely to have directed a large portion of its output toward the production of capital goods (as opposed to consumption); such an outcome promises continued future growth and sets up the possibility of a virtuous cycle. On the other hand, high growth coupled with low investment responsiveness would indicate that the economy has directed what is often an externally-induced growth-push toward consumption rather than investment--i.e., a forfeiting of future growth prospects for the sake of present consumption. Finally, an outcome where output growth is low (or negative) while investment responsiveness is high indicates that the economy has attempted to maintain a constant level of consumption at the expense of investment. The process may well develop into a viscous cycle: as growth falls, investment declines and, in turn, future growth suffers.

The *relation between the K/O ratio and investment responsiveness* is also significant. Consider three cases:

- The ability of most countries with a low K/O ratio to grow is limited by *initially* low capital stock. In addition, if an economy's investment responsiveness is also low, it can not be expected to respond positively to favorable output shocks by increasing rates of investment. Unless the country adopts enabling policies, it will remain on a path of low capital and low growth.
- On the other hand, an economy with a higher K/O ratio but low investment responsiveness can expect to grow over time on the basis of the current capital stock. However, because of low investment responsiveness, the economy will not respond to the output growth by investing, but rather by consuming. As the economy's capital stock decays (especially if it also exhibits a high capital depreciation rate), its K/O ratio will fall, and it will start exhibiting patterns of behavior similar to those of a country with both low K/O and investment responsiveness (see above).
- Finally, consider a country with high capital stock and high investment responsiveness. Because it has invested significantly in the past (hence the high K/O ratio), such a country can expect to continue growing in the future. In addition, given its high investment responsiveness, as the country grows, it will tend to invest more and grow *even further* in the future.



#### **D. Some preliminary implications for the MENA region**

The concepts discussed above shed some light on the differences in the results obtained for the MENA region. Not surprisingly, the countries in group I nearly all experienced significant and disruptive armed conflicts. They tended to have very high estimates of "s", indicating the poor ability of the model to account for the observed behavior of these economies. Specifically, nearly all countries in this group exhibited a pattern of poor economic performance during the hostilities, followed, in many cases, by periods of growth in real investment and output after the hostilities ended. In fact, removing the years of hostilities from the sample period, some of Group I countries (e.g. Lebanon) would exhibit high growth/high investment behavior. Looking forward, the ending of these conflicts (except for Somalia) may be expected to improve the economies' investment responsiveness. However, the experience of other countries from within and outside the region suggests that this may be a necessary but not sufficient condition. There is also a need for domestic policy adaptations as discussed in the following section.

Group II is dominated by economies with limited--albeit growing--economic diversification. The relatively high capital-output ratio suggests that the Group's countries have accumulated capital in the past in response to externally induced growth rates. However, the Group's low investment responsiveness indicates that this rate of capital accumulation was not commensurate with past output growth. These observations suggest that structural factors played an important role. It is worth noting, in particular, the considerable vulnerability of the economies in this Group to fluctuations in international prices and weather conditions. For example, many of Group II countries failed to materially raise their investment rates following positive exogenous shocks (e.g., higher oil prices) instead opting for increasing their consumption levels. Similarly, some of the countries in the Group reacted initially to negative developments (e.g., falling oil prices for Qatar and Saudi Arabia, and droughts for Morocco and Sudan) by reducing investment expenditures.

Group III countries had the highest investment responsiveness in the sample of MENA countries. For some, the process was one of low growth and low investment while for others, it was one of high growth and high investment. Among the former group of countries, Algeria and Egypt experienced long periods of investment decline. In both economies, falling real investment perpetuated the trend of economic stagnation as Algeria's real GDP contracted and that of Egypt stagnated. This process is turning around with both countries experiencing higher growth in 1996. Among the latter group of countries, a notable combination of substantial growth in both output and investment occurred in Tunisia starting in 1989 and in Israel starting in 1990; Jordan had a qualitatively similar--though quantitatively less remarkable--turnaround in 1992.

## V. POLICY IMPLICATIONS

The disappointing investment performance for the *region as a whole* and the distinctions among country groupings discussed above underscore the challenges facing the MENA region's policy makers: to implement a set of policies that would move the economies into a virtuous cycle of higher investment and higher growth. The central question, then, becomes: what are the policies needed to affect such a movement? Building on the results of the literature review and the further analysis contained in the section of empirical investigation, four key factors appear to be crucial for improving MENA's investment performance: maintaining stable macroeconomic conditions; accelerating structural reforms; investing effectively in the social sectors; and strengthening the institutional base. The continued improvement in the overall socio-political regional environment that would result from an intensification of the process leading to a comprehensive, just and durable peace--and the concurrent reduction in country risk--would facilitate the process.

### A. Macroeconomic factors

Macroeconomic instability has been shown to undermine investment. Fortunately, significant progress has been made in MENA countries in recent years to reduce financial instability. Inflation rates have fallen and international reserve losses were either contained or reversed. This is particularly the case for the non-oil economies of the region and reflects primarily the progress that has been made in reducing fiscal deficits.

Within MENA, Group III countries have, as a group, recorded better results as compared to other countries (Table 1): their inflation rates, while still high by industrial country standards, have declined faster, and their current account deficits (relative to GDP) have been lower. Behind these factors is a more pronounced adjustment in fiscal imbalances.

The macroeconomic challenge is far from being over, however. The region's fiscal balance remains vulnerable to prospects for oil prices. In addition, several of the countries are negotiating or have concluded Association Agreements with the EU, the free trade component of which will entail a reduction in receipts from tariff and other trade taxation.<sup>22</sup> The required continuation of the budget consolidation effort will have to involve continued fiscal reform. While the extent of the challenge varies from country to country, most would benefit from a broadening of the base of taxation on income and consumption and a rationalization of spending (including a shift away from nonproductive outlays and toward investment in basic social services).

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<sup>22</sup>As of October 1996, agreements were concluded between the EU and each of Israel, Morocco, and Tunisia. Negotiations are at various stages of advancement with Algeria, Egypt, Jordan, Lebanon, Syria, and the Palestinian Authority.

Table 1. Countries of the Middle East and North Africa: Selected Indicators

	Average 1980-84	Average 1985-89	Average 1990-94
Inflation (in percent)			
Group I	15.8	41.3	29.6
Group II	10.2	11.2	17.8
Group III			
High growth/high investment countries	64.9	32.1	9.0
Other Group III countries	12.4	14.1	20.6
Current account balance (percent of GDP) 1/			
Group I	0.6	-0.8	-15.6
Group II	5.3	-1.5	-6.4
Group III			
High growth/high investment countries	-5.6	-0.1	-4.2
Other Group III countries	-2.6	-3.0	2.9
Central Government balance (percent of GDP)			
Group I	-9.5	-8.4	-15.7
Group II	-3.6	-12.3	-5.8
Group III			
High growth/high investment countries	-13.0	-6.0	-3.8
Other Group III countries	-6.1	-10.4	-5.7
Total trade (percent of GDP)			
Group I	87.0	72.0	73.9
Group II	93.9	75.3	84.0
Group III			
High growth/high investment countries	104.0	89.2	95.2
Other Group III countries	59.3	37.0	60.4

Source: World Economic Outlook, IMF.

## **B. Structural reforms**

### **Real sector and external trade**

Structural reforms and deregulation activities are rightly being given priority by policy makers in the region. By enhancing the return to private sector investment activities, these reforms facilitate the transition to a higher growth path.

In the case of the GCC countries, where the Government accounts for a very important portion of aggregate demand spending and employment, structural reforms will also dampen the contractionary impact of fiscal restraint on non-oil activities.<sup>23</sup> In these countries, the main issues are the reform of the labor markets, privatization and deregulation, and the further relaxation of limitations on foreign investment participation.

In the non-GCC countries, the challenges of deregulation and privatization are accompanied by a need for trade liberalization. These countries still stand out internationally in terms of high statutory tariff rates and nontariff barriers. As a result, some countries in the region remain weakly integrated in the global economy through trade, with adverse spillover effect on foreign investment linkages.

It is now widely accepted that greater openness strengthens the sustainability of a high growth paths.<sup>24</sup> In addition to the well-known (static and dynamic) gains, greater openness promotes domestic competition, contributes to capital accumulation in more efficient tradeable activities, and provides for a faster upgrading of the capital stock. In this context, it is not surprising that the high investment/high growth MENA economies identified above are relatively more integrated in the global economy. Their ratio of total trade to GDP is larger than that of other country groupings; moreover, they have either already achieved low average tariff rates or have committed (in the context of regional or international agreements) to schedules of declining tariffs. They have also been more successful in attracting inflows of foreign direct and portfolio investment.

Given these various considerations, it is encouraging that there has been a pick up in structural reforms in the MENA region. The region has witnessed more intensive privatization activity in both oil and non-oil economies. This has been accompanied by a number of steps aimed at regulatory reform, including the opening up of certain sectors previously reserved for the public sector. We are also witnessing a trend in the region towards greater trade liberalization in non-GCC countries (e.g., Egypt, Jordan, Morocco, and Tunisia). For several

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<sup>23</sup>See Chalk, El-Erian, Fennell, Kireyev and Wilson (forthcoming) and Sassanpour (1996).

<sup>24</sup>See, for example, Sachs and Warner (1996).

of these, the EU Association Agreements have the potential to serve as a stepping stone for the MENA countries to move towards greater multilateral liberalization.<sup>25</sup>

### **Financial sector**

A well functioning financial intermediation system can both facilitate the implementation of structural reforms and enhance the return from such reforms. Such a system increases the mobilization of savings from domestic and foreign sources and contributes to a more efficient allocation of loanable funds.

It is in this context that a number of MENA countries have recently implemented financial sector reforms.<sup>26</sup> Several countries have liberalized their interest rate regimes; removed administrative controls limiting the full commercialization of financial activities; and eliminated regulation-induced segmentation, fragmentation and absence of competition in the financial markets. Interest rate liberalization and other deregulation measures assisted a number of countries to move toward greater reliance on indirect instruments of monetary control. Some MENA countries have also undertaken bank-recapitalization efforts prior to embarking upon the financial reform program and, in parallel, adopted stringent prudential regulations that aim at safeguarding the sector's health at a time of deep structural changes. Finally, the authorities of the MENA countries have recognized the importance of developing money and capital markets and have embarked upon efforts to develop their nonbanking financial markets.

The financial liberalization efforts have started to show results, including a favorable impact on the composition of financial assets in some economies (e.g., a move away from currency and short-term deposits to longer term financial assets). In most reforming countries, the importance of private sector credit increased after liberalization although, in some countries, there are indications of a residual degree of crowding-out of the private sector by public entities; to a large extent, this is explained by the slow pace of privatization in most MENA economies.

As MENA countries press further ahead with their reform effort, emphasis will continue to be placed on competition-enhancing measures and the removal of administrative restrictions--thereby further reducing market segmentation and oligopolistic market structures--as well as improving the legal and regulatory frameworks. While a number of MENA countries have adopted strict prudential and supervision standards, others still need to do more in this regard. In addition, while the *de jure* adoption of financial regulations is essential, MENA countries would also need to develop institutions for properly implementing the regulations.

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<sup>25</sup> See Havrylyshyn (1996) and Egyptian Center for Economic Studies (forthcoming).

<sup>26</sup>For details, see Bisat (1996) and Chalk, Jbili, Treichel, and Wilson (forthcoming).

Financial reform tends to cause substantial changes in the behavior of monetary aggregates--those would need to be carefully integrated into financial policies or else, risk macroeconomic instability. Capital markets remain small and inactive in the MENA region; they would need to evolve in conjunction with indirect monetary policy instruments, and would be invigorated by an acceleration of the privatization process.

### **C. Social sectors**

The experience of the high investment, rapidly growing East Asian countries illustrates the importance of investing in people, as well as in physical capital.<sup>27</sup> This is confirmed by the numerous studies on the return to education and health spending.<sup>28</sup> There are particularly high returns from investing in primary health and primary and secondary education as these are important determinants of factor productivity. Female education has also been shown to have several positive externalities such as contributing to better family health and lower population growth. Emphasis on these factors complements the effectiveness of social safety nets needed to protect the most vulnerable groups of the population, particularly during the transition period.

MENA countries as a group have been shown to spend more public resources on education in terms of GDP than any other developing country region; similarly for health.<sup>29</sup> Yet the outcome in terms of human resource development has been rather disappointing as a result of (i) composition issues (for example, too large a share being devoted to higher education compared to primary education); (ii) weak delivery systems; and (iii) inadequate incentives to maximize the returns from investment in human capital (particularly, labor market distortions).

The challenge for the MENA countries therefore is not only to maintain a high level of spending on social sectors, but also improve the return from a given dollar of investment in such sectors. Going back to our earlier quantitative analysis of investment performance in MENA, policy makers can draw comfort from the strong link that appears to exist between investment in human capital and investment responsiveness performance (Table 2). In particular, a strong relationship emerges between the individual countries' investment responsiveness performance on the one hand, and the rate of illiteracy amongst the school age population, the extent of school enrollment, and the pupil-teacher ratio on the other.

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<sup>27</sup> World Bank (1993a).

<sup>28</sup> For a general discussion, see World Bank (1993). For a discussion on Egypt, see Sachs (1996).

<sup>29</sup> Shafik (1994).

Table 2. Countries of the MENA Region: Selected Indicators of Education and Social Development

	Illiteracy (percent of school age population)		Primary enrollment (percent of school age population)		Secondary enrollment (percent of school age population)		Pupil-teacher ratio primary schools		Pupil-teacher ratio secondary schools	
	1982-87	1988-93	1982-87	1988-93	1982-87	1988-93	1982-87	1988-93	1982-87	1988-93
<b>Group I</b>										
Iran	...	...	...	...	...	...	...	...	...	...
Kuwait	29.4	27.0	98.0	61.0	88.0	85.0	18.2	16.5	12.8	...
Lebanon	23.2	19.9	128.0	111.0	67.0	63.0	...	...	...	...
Mauritania	72.5	66.0	52.0	55.0	16.0	16.0	49.7	52.9	21.6	17.3
Oman	...	...	97.0	100.0	38.0	51.0	25.9	26.7	13.7	16.4
Somalia	83.1	75.9	15.0	104.0	10.0	...	19.0	...	18.5	...
Yemen	67.7	61.5	77.0	76.0	21.0	31.0	...	...	...	...
<b>Group II</b>										
Bahrain	27.1	22.6	111.0	93.0	84.0	97.0	21.0	20.8	21.3	20.6
Libya	43.5	36.2	...	...	...	...	16.0	...	13.7	...
Morocco	58.3	50.5	71.0	69.0	37.0	34.0	26.0	27.6	18.9	14.6
Qatar	24.3	24.3	120.0	95.0	76.0	83.0	9.4	6.9	8.9	8.5
Saudi Arabia	42.1	37.6	71.0	78.0	44.0	46.0	16.1	14.3	14.5	12.6
Sudan	75.6	72.9	49.0	50.0	20.0	22.0	34.7	34.0	24.7	22.1
Syria	40.9	35.5	110.0	107.0	59.0	52.0	26.5	23.7	16.9	18.9
U.A.E.	...	...	98.0	118.0	61.0	67.0	25.0	17.0	...	...
<b>Group III</b>										
Algeria	51.4	42.6	94.0	99.0	54.0	60.0	27.2	27.4	19.4	16.8
Egypt	55.4	51.6	96.0	101.0	69.0	80.0	29.9	25.6	20.0	21.8
Israel	8.2	4.9	96.7	95.7	79.2	84.0	16.7	18.2	...	...
Jordan	25.8	19.9	108.0	105.0	79.0	91.0	29.8	22.1	16.8	15.6
Tunisia	42.4	34.7	116.0	117.0	40.0	45.0	30.9	26.3	...	...

Source World Bank, Social Indicators of Development.

### **D. Institutions**

There is now no doubt that institutions matter a great deal--be it in the process of economic development or in maintaining a continued strong economic and financial position. Accordingly, progress on the macroeconomic and structural reform fronts will need to be accompanied by further strengthening of institutional mechanisms.

International experience points to a number of important criteria when implementing institutional reform. First, the process should be consistent with the more general regulatory reforms being pursued (to various degrees) in the economies of the region. This includes the need to strengthen agencies responsible for enforcing anti-trust, property rights and prudential regulations. Second, it is essential to have improved coordination between the various economic and financial authorities with an eye to strengthening the monitoring of economic developments within an overall macroeconomic framework. Third, institutions should be commercially-oriented and their activities transparent, predictable and sheltered--to the extent possible--from the political process. Finally, attention should be paid to the timely provisioning to markets of economic and financial data to help overcome market failures arising from incomplete information.

Regional institutions--existing and new ones--and regional initiatives will also play an important role. In this regard, much attention is being devoted these days to the Association Agreements with the EU and the establishment of a new Middle East Development Bank. As noted earlier, the former can serve as a catalyst for reform and can provide "an anchor" for the economies of the region--albeit with risks that need to be minimized.<sup>30</sup> The latter can offer a channel for improving policy coordination in the region and supporting welfare-enhancing regional projects.<sup>31</sup>

### **VI. CONCLUDING REMARKS**

MENA policy makers are right in placing growth at the top of the economic policy agenda. Sustained high growth is a necessary condition for reducing unemployment, generating jobs for the increasing number of entrants into the labor force, and improving citizens' welfare.

To meet the growth challenge, MENA must improve its investment performance--by investing more and increasing the return from a given dollar of investment spending. Unlike the past development strategies adopted in most countries in the region, the process must be led by the private sector with the public sector playing a supportive role in providing an

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<sup>30</sup> Havrylyshyn (1996).

<sup>31</sup> See El-Erian and Fischer (1996).



enabling environment, addressing market failures, and investing in basic social sectors and key infrastructure.

Theory and empirical evidence demonstrate that factors stimulating higher domestic investment also result in larger foreign direct investment and, more generally, in a better ability to benefit from the changes in regional and international environments. The investment experience of MENA countries provides further support for the findings of the literature. Economies facing severe conflicts and dislocation have tended to invest little and displayed an unresponsive investment function. The end of hostilities in most such countries should serve as an opportunity for the governments to implement policies necessary for improving investment responsiveness. At the other extreme, some MENA economies are already experiencing the benefits of a virtuous cycle having acquired an economic growth track record which is coupled with a responsive investment function thus promising sustainable growth.

In between the two extremes lies most of the MENA countries that, until now, have failed to devote sufficient portions of their output toward investment. Among those countries are those that have also experienced falling output. This cycle of low investment and growth can and should be reversed by the prompt implementation of policies that raise private sector investment. By contrast, other MENA countries have experienced (often externally induced) high growth levels but translated the gains into higher consumption rather than investment.

Not surprisingly, the high investment/high growth experience of some MENA countries has been positively linked to strengthening macroeconomic balances, and widening structural reforms with emphasis on the social sectors. These factors will remain important, as will the need to strengthen the institutional base. With timely policy actions on these fronts, MENA can look forward to higher and more efficient investment, thereby strengthening the basis for rapid and sustained economic development.

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