

Introduction

Part I of this report and other studies (e.g., World Bank Regional Poverty Report 2006) concluded that the MENA region has realized significant returns to education on the social front, but modest economic returns. The vast and steady expansion of access to education in the last few decades has contributed to reduced rates of fertility, healthier lives, and longer life expectancies. However, the economic returns to investment in education have been more elusive, particularly at the macroeconomic level.

In searching for ways to enhance the contribution of education to economic development, Part II of the report focused on the education systems themselves. It concluded, on the basis of a new analytical framework and a historical and comparative assessment of the education systems in the region, that future education reforms must now travel a new road. The main features of the new road involve greater emphasis on incentives and public accountability, besides improving the education process itself to achieve lifelong learning. Part III of the report complements the analysis of Part II and puts all the pieces together. It focuses on the demand for labor (both domestic and external), and how the characteristics of the labor markets in the region may be changed to maximize the rewards of investment in education to the individuals and society. It also draws the road ahead for MENA countries.

The underlying premise of chapters 7 and 8 is that labor market characteristics determine the payoffs from investment in education. Functioning labor markets tend to allocate human capital into activities that are most growth-enhancing (e.g., dynamic manufacturing sectors) (Pissarides 2000). They can also positively affect equity, depending on the way labor markets affect the allocation of employment and earnings across income groups. Finally, with the poor often deriving most of their monetary income from wage labor, job creation for this particular group of individuals can have a direct positive effect on poverty reduction. Conversely, labor market distortions would have the opposite effects.

Thus, a well-functioning labor market is fundamental to maximizing the returns from investment in education.

To explore the above assertions, chapter 7 deals with domestic labor markets, while chapter 8 deals with external labor markets or migration. The rationale for differentiating between the two markets is twofold: (i) these markets are distinct in the way they function, thus in the way their failures can be corrected, and (ii) the MENA region is characterized by strong complementarities in factor endowments across countries, with some enjoying excess capital and others excess labor. One consequence of the latter point is that MENA countries could benefit significantly from coordinating among themselves a set of measures to facilitate and improve the temporary mobility of labor across their borders. Together with the analysis of Part II, the findings of Part III are an attempt to suggest a road map for the future in MENA.

The result of the analysis of the labor markets within MENA countries and across their borders is that these markets are not conducive to maximizing the economic returns from education. Within countries, the demand for labor is generally insufficient or distorted, thanks to low economic growth, the dominant role of the government as an employer, and the relatively high cost of doing business. As a result, productivity and the returns to education are low. Across countries, labor mobility is hampered by asymmetry of information about job seekers and job opportunities, weak contract enforcement, and lack of coordination among governments to resolve these problems. Failing to correct these problems also erodes the benefits from education both to the migrants and to the labor-exporting and -importing countries. Accordingly, to reap the full benefits of better-quality education, complementary reforms are necessary to enhance the demand for decent work and to allow more productive use of human capital, both within and across countries. These reforms are not only important for improving the returns on past investment in education, but also to ensure that the right education choices are made in the future. The road map, chapter 9, is simply a compilation of the key lessons we have learned throughout the report.

Education and Domestic Labor Markets

Individuals and governments invest in education expecting, among other things, to obtain higher economic returns. Individuals make schooling decisions with an eye on the types of employment choices and earnings they will garner over their working lifetime. Governments expect a more educated workforce to contribute to higher rates of economic growth and improved productivity, leading to improved living standards for all. However, these expectations may go unfulfilled if the labor markets do not fully absorb the educated workforce and allocate them to their most productive uses. This chapter explores the role of domestic labor markets within MENA countries in this process.

The main hypothesis presented in this chapter is that high economic payoffs from education are determined by the outcomes in the labor market. Low demand for labor, because of low job-creating growth and a growing labor force, effectively leaves some of the educated unemployed. The structure of the labor market determines how much human capital is put into growth-enhancing activities and how much into others. With the poor often deriving the majority of their monetary income from wage labor, lack of jobs for the poor has strong adverse consequences for poverty reduction and equity goals. If education is to make its strongest contribution to economic goals, then a well-functioning labor market is fundamental.

The upshot of the analysis is that labor market outcomes in most MENA countries are weak, with much of the educated left unemployed or employed in low-productivity jobs. At the most basic level, this outcome is the product of an increase in labor supply, especially of the educated and female workforce, at a pace greater than the region's capacity to create new productive jobs. At the policy level, the region has yet to create the necessary conditions to maximize the economic contribution of education to society. The most critical reforms concern public sector employment policies, the private sector development agenda, and the informality of a large segment of economic activities.

The remainder of the chapter is organized as follows. This first section discusses labor market outcomes, focusing in particular on unemployment on the one hand and productivity and returns to education on the other. The next section reviews the role of the imbalances between the supply of and demand for labor in explaining the low returns to education. The third section is devoted to a discussion of key labor-market policies, and the chapter concludes with a summary of the key points made.

Education and Key Labor Market Outcomes in MENA

The poor micro and macro returns to education in MENA reflect two key labor-market outcomes: unemployment and low productivity/returns to education. From an economic perspective, unemployment, especially of the educated labor force, is an outright waste of investment in education.¹ Low productivity, and thus low private returns and real wages, is the result of a suboptimal use of investment in education. On both counts, the MENA region scores low. As a result, the economy-wide returns from education are also low.

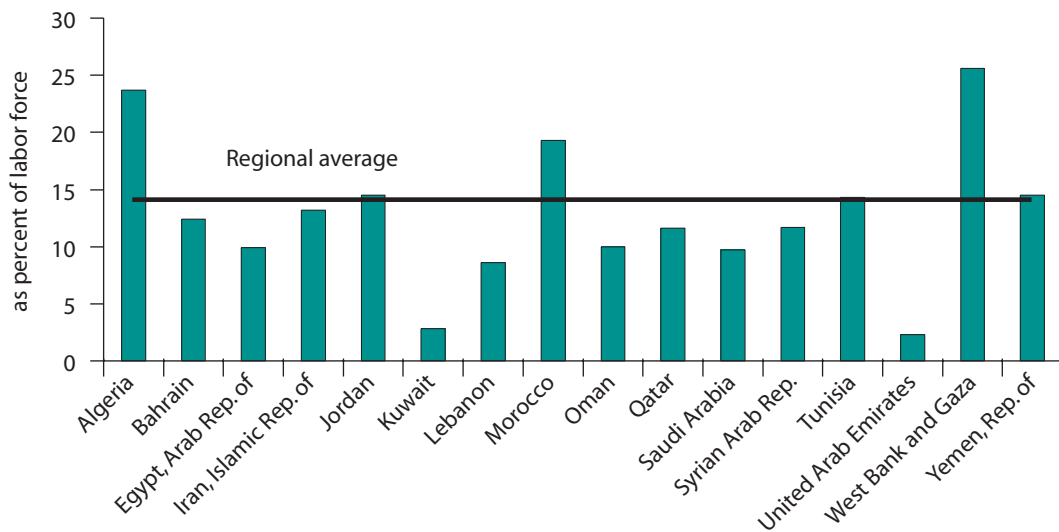
Levels and Trends of Unemployment

Unemployment in the MENA region averages 14 percent higher than every other region of the world except Sub-Saharan Africa (figure 7.1). The problem affects virtually every country in the region, even several oil-exporting Gulf economies, which traditionally had to import expatriate laborers to supplement the national workforce. In a few countries, the unemployment rate reaches close to 20 percent or higher, including Algeria (23.7 percent),² Morocco (19.3 percent), and the West Bank and Gaza (25.6 percent). And as unemployment increased, the gap between the labor force and the labor force actually contributing to growth increased. Over the 1980s and 1990s, unemployment in the region doubled from about 8 percent to 15 percent. From a growth-accounting perspective, increasing unemployment levels result in increasing the share of laborers not actually contributing to productive activities, thereby lowering economic growth and the returns to education.

Exacerbating the loss of human capital in MENA is the fact that unemployment has disproportionately impacted those with higher levels of education, with considerably higher probability of being unemployed for those with more than secondary education (see table 7.1 and figure 7.2). In the Arab Republic of Egypt, for example, while those with a secondary education or greater make up only 42 percent of the labor force, they account for 80 percent of the unemployed. In Algeria, while only about

FIGURE 7.1

Unemployment in MENA, 2004*



Source: World Bank data.

Note: * or most recent year available post-2000.

20 percent of the labor force has completed more than secondary education, they account for almost twice that proportion of the unemployed. And in Morocco, while those with a secondary education or greater account for only 16 percent of the labor force, they make up almost 30 percent of the unemployed.

Although the MENA region is not alone in the pattern of high unemployment among younger, more educated workers, MENA's educated youth unemployment has been steadily increasing. And in some countries, like Egypt, the problem is not new. The rate of unemployment among secondary school graduates in the 1970s was about 20 percent, and among the higher educated, 10 percent (Fergany 2000). Thus, the factors behind this problem have persisted for almost 30 years: (i) expansion of higher education, promoted in this case by guaranteed employment in the public sector up until recently; (ii) a high proportion of students who major in humanities and literature; and (iii) a slow rate of industrialization.

The other facet of the unemployment problem in MENA is that it is structural in nature in several countries. Thus, disequilibrium in the labor markets of countries such as Algeria, Morocco, and Egypt differs from frictional or cyclical unemployment in countries such as Jordan and Tunisia or the oil-producing MENA countries. In these latter countries, the unemployment rates for secondary and particularly university-

TABLE 7.1

Distribution of the Labor Force and the Unemployed in Selected MENA Economies, by Education

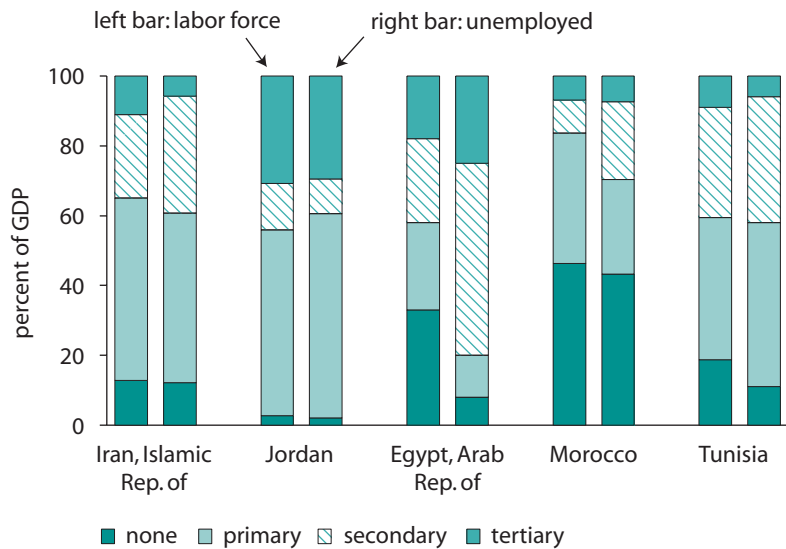
Country	Proportion of labor force with secondary education or above	Proportion of unemployed with secondary education or above
Egypt, Arab Rep. of ^a	42.0	80.0
Bahrain ^b	24.9	59.0
Morocco ^c	16.4	29.6
Iran, Islamic Rep. of ^d	35.0	39.2
Jordan ^e	45.1	43.6
Algeria ^f	20.0	37.8
Oman ^g	15.4	39.7
Tunisia ^h	42.6	42.5

Sources and Note: a: Galal 2002 (1998 data). b: Labor force: *World Development Indicators*; Unemployment: World Bank, 2003d. c: Labor Force: Boudarbat 2005; Unemployment: World Bank 2003d. d: (1994 data) Economics Research Forum, Economic Trends in the MENA region 1998. e: (2003 data) Jordan Department of Statistics. f: Labor Force: U.S. Library of Congress Federal Research Division Country Studies. g: Labor force: *World Development Indicators* (1996 data); Unemployment: World Bank 2003d (1996 data). h: World Bank 2004.

educated are generally lower than for those with primary education, so acquiring more education reduces the probability of unemployment. However, in countries where the problem is structural in nature, acquiring more education increases the probability of unemployment.³

FIGURE 7.2

Distribution of the Labor Force and the Unemployed in MENA by Education



Sources and Note: Jordan data for 2004. Jordan Department of Statistics; Egypt data for 1998. Galal 2002; Morocco data for 2000. Boudarbat 2005; Tunisia data ranges from 1997–2001. World Bank 2004a; Iran data from 1994 (unemployment) and 1999 (labor force). Various sources.

The Low Productivity–Low Returns Trap

Even when the region was able to employ its educated labor force, these individuals were not fully deployed to their most productive uses. Thus, at least a fraction of the employed finds itself caught up in a low productivity–low return to investment in education trap. Low productivity leads to low returns to education, and low returns to education lead to low investment in education, thus low productivity, and so on.

The above argument is supported by the results of Total Factor Productivity (TFP), which were discussed in chapter 2 on the basis of Keller and Nabli (2002). These results point out that the MENA region began in the early 1960s a two-decade trend of massive public investment in infrastructure, health, and education. This investment paid off. Economic growth was the highest in the world in the 1960s, averaging 6.3 percent per year (4.2 percent per year per laborer). In addition, TFP growth was also high. By the 1970s, the underlying conditions spurring growth were massive increases in the rate of physical capital accumulation per laborer of more than 50 percent, and an almost doubling of the rate of human capital accumulation per laborer. However, TFP declined dramatically, bringing down growth on a per-laborer basis on average by 1.6 percentage points a year. Between the 1960s and 1970s, TFP growth fell by an average of 3 percentage points a year, with the most serious declines observed in oil producers. In the 1980s, international oil prices slumped in the wake of global overproduction, and the region witnessed slow or even negative per-laborer growth rates. Most of the non-oil economies saw TFP growth turn negative. With eroding macroeconomic balances and growing debt burdens, investments and TFP declined further. Only in the 1990s did productivity growth in MENA stop its decline, but even then, total productivity growth remained below world averages.

Consistent with TFP changes is the pattern (and trend) of private rates of return to education in the MENA region. In general, almost all studies confirm that education yields positive returns, but the estimates across countries differ markedly. The average rates of return to an additional year of schooling range anywhere from 5 percent in developed countries to as high as 29 percent in developing countries (Trostel, Walker, and Woolley 2002; Psacharopoulos 1994). Other studies have put the range of estimates within a narrower band of between 8–15 percent (Card 1999, 2000; Pritchett 1999).

For the MENA region, estimates of the private rates of return are available only for a number of countries. The results shown in table 7.2 were obtained using the same estimation technique—a two-stage Heckman procedure for estimation. These results indicate that the rates of return to education in the region range from a high of almost 15 percent

(for primary school completion among females in the private sector in Jordan) to a low of minus 11 percent (for lower-secondary school completion among females in the private sector in Egypt), but generally fall in the range of between 1–11 percent, where about 90 percent of the observations lie.

Because of the range of estimates across schooling levels, across gender, and across countries is wide, it is not immediately apparent whether the MENA region suffers from poor private returns to education. However, taking into account the structure of the labor force by level of edu-

TABLE 7.2

Private Rates of Return to Schooling in MENA Countries, by Gender and Sector

(% per additional year completed)

Education level/description	Egypt, Arab Rep. of. 1998	Morocco 1999	Jordan 1997	Yemen, Rep. of 1997	Syrian Arab Rep. 2002	Tunisia 2001
Primary						
Male public	6.4	6.1	3.5	2.7	0.6	
Male private	3.6	3.4	2.0	2.7	1.0	2.7
Female public	5.3	10.5	-3.9	5.1	2.2	
Female private	7.2	9.4	14.7	8.0	1.3	3.0
Lower secondary						
Male public	4.9	8.2	2.9	2.7	1.2	
Male private	4.4	6.3	5.5	2.7	2.5	3.3
Female public	8.2	13.4	5.2	3.7	4.9	
Female private	-11.2	10.0	9.8	7.4	1.2	2.8
Upper secondary, general						
Male public	8.8	8.8	2.8	2.2	2.4	
Male private	7.3	7.7	6.0	2.2	3.8	5.5
Female public	9.7	12.1	4.6	3.9	6.0	
Female private	-1.5	11.0	10.4	12.1	2.9	5.5
Upper secondary, vocational						
Male public	7.2	6.8	3.8	3.3	4.4	
Male private	5.0	5.8	3.2	3.3	3.9	
Female public	9.6	11.9	4.3	4.3	8.2	
Female private	4.9	11.3	8.6	10.7	4.9	
University						
Male public	8.8	8.9	4.6	3.8	6.9	
Male private	7.3	9.5	10.2	5.2	8.5	10.1
Female public	10.7	12.8	6.8	4.4	9.6	
Female private	10.9	9.3	12.9	6.8	7.2	10.5

Sources: World Bank 2003d, 2004a; Huitfeldt and Kabbani 2005.

Note: Derived from regressions that control for potential experience and potential experience squared, urban-rural location, and part-time and casual work status in the private sector. Regressions for Tunisia not calculated separately for public versus private sector workers, with public sector employment included as a control variable. Returns to education for Tunisia calculated for differing educational completion levels: primary incomplete (appears under primary), primary complete (appears under lower secondary), secondary (appears under upper secondary, general), and postsecondary (appears under university). Yemen and Tunisia regressions control for age and age squared instead of potential experience and potential experience squared. The regressions for Syrian Arab Republic do not control for urban and rural location or for part-time and casual work status in the private sector. All regressions control for sample selection using the Heckman 2 stage procedure, except for the Morocco and Tunisia regressions.

cation, the range of the average returns narrows significantly, from a low of about 4.4 percent in Tunisia to a high of about 8 percent in Morocco,⁴ and averaging 5.5 percent for the MENA economies as a group. These returns also fall considerably below the average rates of return to schooling observed in a sample of middle- and lower-middle-income countries employing similar estimation techniques (table 7.3). For a small sample of lower- and middle-income economies, the average rates of return using similar estimation techniques fall in the range of between 8–13 percent, and average about 9.4 percent for the group, about 70 percent higher than the average educational returns observed in MENA countries.

Over the past two to three decades, there is also evidence of declining returns to education within the region (table 2.8). Multiple-year data on the returns to education exist for three economies in MENA: Morocco, Tunisia, and Egypt. In Morocco, the private rates of return to education, which averaged almost 16 percent in 1970 (Psacharopoulos 1994), had fallen to 11.7 percent by 1991, and even further, to 7.9 percent by 1999 (World Bank 2003d). In Tunisia as well, the private rates of return, which averaged 8 percent in 1980, fell to 4.4 percent by 2001 (Psacharopoulos 1994). Only in Egypt have the rates of return to education appeared stable, with only a marginal decline between 1988 and 1998 (from 5.7 percent in 1988 to 5.5 percent in 1998), according to World Bank (2003d).

TABLE 7.3

Rates of Return to Education across a Sample of Countries

Region/country	Year of observation	Average rate of return to schooling
Latin America		
Mexico	2000	8.8
Argentina	2002	11.4
Brazil	1996	12.9
Mean		11.0
Europe and Central Asia		
Russian Federation	2000	8.5
Hungary	1998	11.2
Czech Republic	1997	9.4
Slovak Republic	1997	8.4
Mean		9.4
Asia		
China	2001	10.2 ^a
India	1995	7.5
Mean		8.9

Sources: Mexico: Rodriguez-Oreggia 2004. Argentina: Giovagnoli et al. 2005; Brazil: Sachsida et al. 2002; Russia: Vernon 2002. Hungary: Campos and Jolliffe 2004. Czech and Slovak Republics: Filer et al. 1999; China: Zhang et al. 2005; India: Kingdon 1998.

Note: a. urban only.

Also consistent with the track record of TFP changes in the region is the observation that real wages stagnated or declined over time. Information on real wages is available from the 1960s to the present for the manufacturing sector (which employs between 20–35 percent of workers) for several MENA countries (see figure 7.3).

On the basis of this information, it is apparent that, since 1985, real wages in manufacturing have declined on average by 2.6 percent a year (weighted by manufacturing employment in 1995). Real wages in most countries in the region have correlated with the oil boom/bust cycle, generally downward. The decline in real wages was particularly strong in Egypt, Jordan, Algeria, and Kuwait.

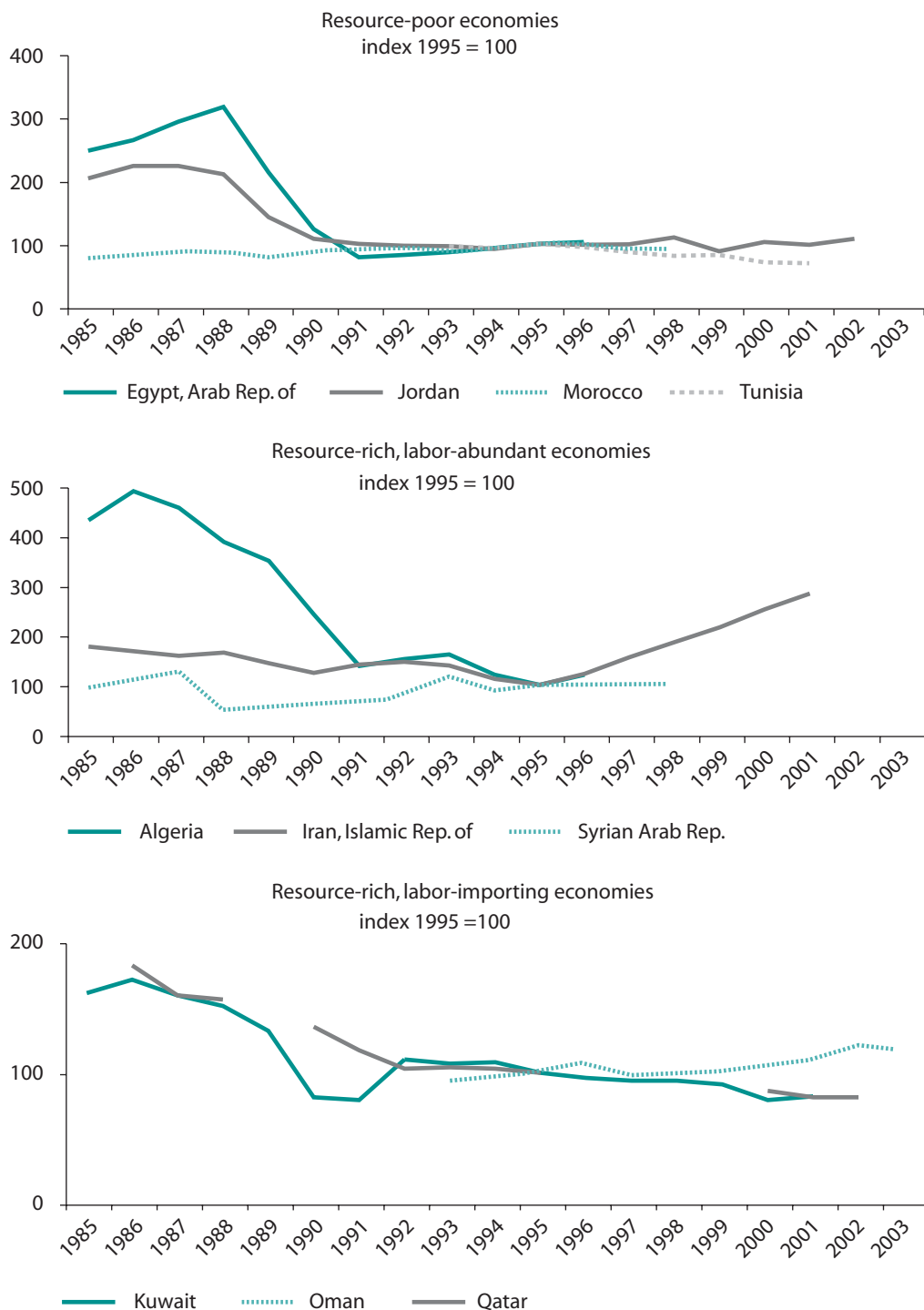
Economy-Wide Returns

Because of the high rates of unemployment and low productivity/private returns to education in the region, the economy-wide impact of investments in education has also been modest. Without repeating the analysis provided in earlier chapters, it is worth reiterating the main conclusions:

- *Economic growth was anemic* in the last few decades, despite a rapid expansion of education.⁵ Over the period 1960 to 1990, the average level of education for the adult population in the MENA region rose by an average of 5 percent a year,⁶ a rate not matched by any other region of the world. The following decade, however, with more and more educated laborers entering the workforce, economic growth in the region averaged only 0.5 percent a year on a per-laborer basis, the lowest schooling/growth relationship in the world.
- *Changes in inequality were marginal*, notwithstanding the dramatic expansion of access to basic and secondary school in MENA over the last three decades. The level of inequality in the region was higher in the 1970s than in the 1990s, but with a range of inequality measures between 0.34 and 0.44 consumption Gini coefficients, the region's income distribution is better than it is in most countries in Latin America and Sub-Saharan Africa.
- *Poverty levels were essentially stagnant*, also despite increased access to education by the poor in most MENA countries. Having made enormous progress on poverty reduction in the earlier period of development, the region has made little progress in the last 15–20 years. Prior to 1985, household surveys for Egypt and Tunisia indicate that poverty rates declined between 1965 and 1985, in Tunisia, from 51 percent in 1965 to only 16 percent by 1985, and in Egypt, from 82 percent in 1975 to only 53 percent by 1985 (measured by poverty

FIGURE 7.3

Real Wages in Manufacturing in MENA, 1985–2003



Source: UNIDO.

headcounts at \$2 per day PPP, World Bank 2006). However, the region's average poverty rate fluctuated between 20 and 25 percent in the 1990s.

Population Growth, Employment Creation, and Education Expansion in MENA

At some basic level, the labor market outcomes described above are the product of imbalances between the supply of and demand for labor. On the supply side, the labor force in the MENA region has grown more rapidly than it has in East Asia or Latin America for several decades, mainly because the MENA region has continued to have more rapid population growth than those other regions. Nevertheless, the employment of women in the MENA region lagged behind other regions, attenuating labor force growth in the past. Now that has also changed, contributing to even more rapid labor force increases in the 1990s.

On the demand side, the region was able in the 1960s and 1970s to achieve relatively rapid economic growth at a time of lagging female participation in wage labor, which made it possible to absorb population growth into employment. But by the 1990s, unemployment in MENA was the highest of any region in the world. Increased education in the labor force had little impact on reducing these rising unemployment rates; indeed, higher educated youth in some countries, such as Morocco and Algeria, had among the highest unemployment rates in the region—about 70 percent (see Carnoy et al. 2004; World Bank 2004). Furthermore, high unemployment rates are contributing to the pressure on MENA governments to expand secondary and higher education, if nothing else to delay youth entry into the labor force.

The rest of this section elaborates these two sides of the story, drawing on a recent World Bank document (2003d), and focusing on the link between education and the supply of and demand for labor.

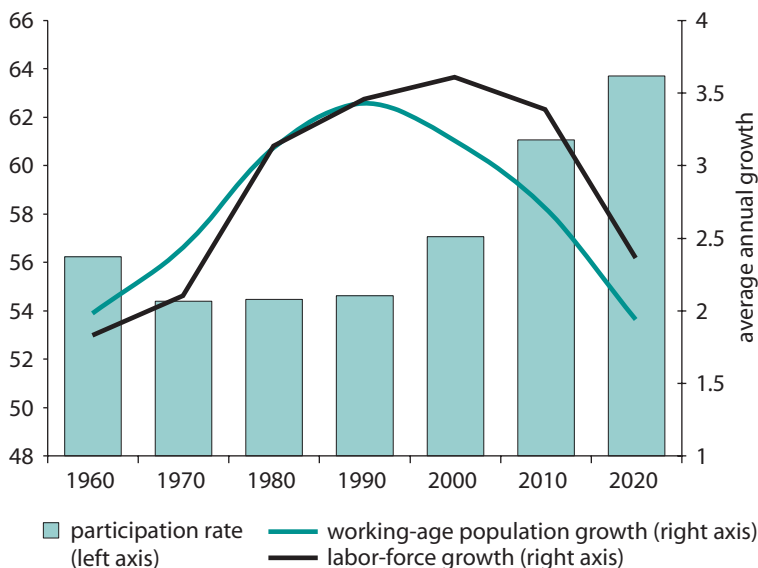
Labor Supply and Demand

Like other regions, the MENA region is going through a demographic transition (figure 7.4). As noted in chapter 3, this process started four decades ago, and is characterized by a rapid reduction in fertility rates. However, the decline in fertility rates began later in the MENA countries than it did in East Asia or Latin America, and fertility started out at a higher level in 1960, so MENA's fertility rates remain considerably higher than those of other regions. Among the East Asian countries, only Malaysia and the Philippines still have high fertility levels, and among

FIGURE 7.4

Dynamics of Labor Supply in MENA Countries, 1950–2020

(percent)



Source: World Bank 2003e.

our sample of Latin American countries, Peru remains the only country with high fertility rates. In almost all MENA countries, women still have more than 2.5 children during their child-bearing years. This lag in the region is due to a host of factors, including a delay in achieving universal basic education for women, low investment in birth control measures, and low levels of participation of women in the wage-labor force.

As a result of these demographic trends, growth in the labor force in the MENA region has exceeded growth in other regions of the world since the beginning of the 1980s. In the 1970s, the labor force increased by more than 3 percent per year, equal to the growth in Latin America and far higher than the 2.4 percent annual increase in East Asia. East Asia's labor force growth dropped sharply by the 1990s to about 1 percent per year, and Latin America's to 2.4 percent, whereas MENA's rates continued to rise to 3.5 percent. These rates started to decline in the 1990s, but will remain above 3 percent for some time (World Bank 2003d).

Women's labor-force participation in the MENA countries has been historically higher in agrarian societies such as Egypt, Morocco, and Yemen, but in general, has lagged behind other regions. Yet in the 1990s, women's labor-force participation began to increase rapidly (table 7.4). An important factor in this increase is the investment in women's education. As in the case of males, the average education of women in the

TABLE 7.4

Female Labor Force Participation Rates, 1980–2004

(percent)

	1980	1990	1995	2000	2001	2002	2003	2004
Algeria	21.4	21.1	24.4	27.6	28.4	29.2	29.9	30.7
Bahrain	11.0	17.0	18.9	21.7	22.1	22.5	22.9	23.3
Djibouti	–	–	–	–	–	–	–	–
Egypt, Arab Rep. of	26.5	27.1	28.9	30.5	30.8	31.1	31.4	31.7
Iran, Islamic Rep. of	20.0	20.3	23.5	27.0	27.8	28.6	29.4	–
Iraq	17.3	16.3	18.0	–	–	–	–	–
Jordan	14.6	17.1	20.4	23.9	24.4	25.0	25.5	26.1
Kuwait	13.0	22.8	19.2	21.5	22.3	23.2	23.9	24.7
Lebanon	22.7	26.6	28.2	29.3	29.6	29.9	30.2	30.4
Libya	18.6	18.4	20.9	23.4	23.8	24.2	24.7	25.1
Morocco	33.5	34.5	34.6	34.7	34.9	35.0	35.2	35.3
Oman	6.3	10.7	13.7	17.2	18.2	19.1	20.1	21.0
Qatar	6.4	11.7	14.5	16.6	17.1	17.5	17.9	18.4
Saudi Arabia	7.6	11.4	14.6	17.7	18.6	19.4	20.2	21.0
Syrian Arab Rep.	23.5	24.4	25.6	26.9	27.3	27.6	27.9	28.2
Tunisia	28.9	29.1	30.5	31.9	32.2	32.5	32.7	33.0
United Arab Emirates	5.1	10.7	11.7	13.2	13.6	14.1	14.5	–
West Bank and Gaza	–	–	–	11.5	11.9	12.4	12.8	13.2
Yemen, Rep. of	32.5	29.7	29.2	28.6	28.7	28.8	28.9	29.0
Mean	18.2	20.5	22.2	23.7	24.2	24.7	25.2	26.1
China	43.2	45.0	45.2	45.1	45.1	45.1	45.0	45.0
Indonesia	34.8	38.1	39.2	40.5	40.8	41.0	41.2	41.4
Korea, Rep. of	38.7	39.3	40.3	41.4	41.1	40.9	40.7	40.5
Malaysia	33.7	35.0	36.3	37.6	37.9	38.1	38.4	38.6
Philippines	34.7	36.5	37.2	37.9	38.1	38.2	38.3	38.5
Thailand	47.6	47.2	47.0	47.1	47.1	47.0	47.0	46.9
Mean	38.8	40.2	40.9	41.6	41.7	41.7	41.8	41.8
Argentina	27.6	28.5	30.9	33.3	33.9	34.5	35.1	–
Brazil	28.4	34.8	35.2	35.5	35.5	35.5	35.5	35.5
Chile	26.3	29.9	31.8	33.6	34.1	34.6	35.1	35.5
Colombia	26.2	36.0	37.7	39.1	39.3	39.5	39.7	39.9
Mexico	26.9	30.0	31.7	33.8	34.0	34.2	34.4	34.6
Peru	23.9	27.5	29.6	30.9	31.2	31.5	31.8	32.1
Mean	26.6	31.1	32.8	34.3	34.7	35.0	35.3	35.5

Sources: The World Bank, GDF, and WDI central database (August 2005).

MENA population began at very low levels in the 1960s, but increased more rapidly than in some other regions, such as East Asia, where women's participation rates were already quite high in the 1960s and 1970s, and more rapidly than Latin America since 1990.

Economic Growth and Employment Growth

The rapid growth in the population and labor-force participation in the MENA region was not associated with sufficient job-creating growth to absorb the increase in the supply of labor. Begin-

ning in the 1990s, MENA countries' demographic expansion outran their capacity to create employment. Lower growth rates in the 1980s and 1990s led to high unemployment in many MENA countries. Thus, a combination of high population growth and increased participation of women in the wage-labor force, together with insufficient job creation, resulted in higher unemployment, especially in Algeria, Morocco, Syrian Arab Republic, Jordan, and Tunisia.

Given the age pyramid and the level of economic activity in the MENA countries, to keep the employment situation from getting worse, about 34 million jobs will have to be created between now and 2020—11 million in Egypt, 4 million each in Syria and Morocco, and 3 million in Algeria (Femise 2003). According to Keller and Nabli (2002), outside of the Gulf States, only Egypt and Tunisia are capable of creating enough jobs to absorb the increases in their active populations. In part this is due to lower population growth in those countries in the 1990s, but it is mainly the result of higher growth in key economic sectors. In Algeria and Jordan, economic growth rates would have to be, respectively, 4 and 3 percentage points higher than they were at the beginning of the 2000s.

Looking at the employment elasticity in MENA superficially suggests that the standard critique of low employment creation—overly physical capital-intensive economic development—does not apply to the MENA situation. Economic growth is considered “capital intensive” when the employment elasticity is less than 0.4 and “labor intensive” when the elasticity is greater than 0.8. As table 7.5 shows, however, the employment elasticity (percentage change in employment relative to percentage change in GDP) in MENA during the period 1990–2004 was 1.1. This means that for every 1 percent increase in GDP in the 1990s, employment increased by 1.1 percent, which is higher than the employment capacity of any region in the world. However, this apparent employment “efficiency” masks an unusually high rate of public sector employment growth in MENA countries. Given the relatively low GDP growth rates in many MENA countries in the 1990s and early 2000s, the strategy of absorbing active population growth in public employment is unsustainable. Moreover, this average conceals significant variations across countries, with Algeria, Jordan, and Saudi Arabia doing much worse than the rest of the sample. In addition, in all cases, the regional average for MENA falls far below the employment elasticity in all regions of the world, save Europe and Central Asia.

The Asian miracle of the 1970s and 1980s was aided by the rapid demographic transition (fertility decline) in those countries. This resulted in a relatively large fraction of the population that was economically active and a favorable dependency ratio (the proportion of economically

TABLE 7.5

Employment Elasticity of Growth in MENA versus Other Regions, 1990–2004*

Country	Employment growth (%)	GDP growth (%)	Time period	Worker productivity growth (%)
Algeria	4.2	2.5	1990–2004	1.7
Iran, Islamic Rep. of	3.0	4.2	1990–2002	0.7
Egypt, Arab Rep. of	2.9	4.3	1992–2003	0.7
Morocco	2.1	2.6	1990–2001	0.8
Tunisia	3.0	5.0	1989–2000	0.6
Jordan	5.9	5.1	1990–2001	1.2
Syrian Arab Rep.	3.7	4.6	1991–2002	0.8
Saudi Arabia	5.7	2.7	1990–2000	2.1
MENA	3.5	3.9		1.1
East Asia and Pacific (inc. China)				0.1
East Asia and Pacific (exc. China)				0.5
Latin America and Caribbean				0.7
Europe and Central Asia				0.3
South Asia				0.2
High income/OECD				0.3
World (exc. China)				0.4

Sources: MENA employment growth: World Bank staff estimates from country sources; GDP: World Bank World Development Indicators; Employment outside of MENA economies: World Development Indicators, International Monetary Fund International Financial Statistics online.

Note: * = Or closest year available.

active population to inactive population, e.g., children and older people who were not working). This promoted a high savings rate that accompanied high economic growth rates. In the MENA region, by comparison, the process started later and is likely to last much longer. As a result, the “population gift,” when the economically active population bulges and lower fertility rates produce fewer children, will be spread out over a longer period, and might create a smaller positive effect on growth. In effect, the continuing of a relatively high proportion of youth (less than 15 years old) in the population may limit savings and capital accumulation.

Labor-Market Policies

Beyond structural imbalances in the labor market, the low returns to education are affected by various government policies that either diminish the prospects of job creation or lead to low productivity among workers. Among these government policies, the most glaring in the MENA region relate to public sector employment, private sector development policies, and the informal sector. These policies are discussed in turn below.

Public Sector Employment

A major influence on labor-market outcomes today is the legacy of public sector employment and employment intervention stemming from the region's state-led and redistributive models of economic and social development. Beginning in the 1950s and 1960s, as MENA governments nationalized major assets and took direct control of economic production, public sector employment emerged increasingly as a primary engine for job creation during the 1970s and 1980s. In Egypt, employment in the public sector doubled from 16 percent in 1960 to 32 percent by 1981 (estimated on the basis of Assaad 1997). In the Islamic Republic of Iran, in just a 10-year period, public sector employees increased from 19 percent of the employed population in 1976 to 32 percent in 1986 (Amuzegar 2004). In the oil-producing economies of the Gulf, the influence of the public sector on national employment was the greatest. In Kuwait, between 1975 and 1985, the public sector increased its absorption of nationals from 76 percent to 92 percent of all employees. Public sector employment in oil-producing countries provided a means for both distributing oil and oil-related wealth throughout the economy.

Under state ownership, workforce regulations included job security guarantees, social security programs, high public sector wages with generous nonwage benefits (such as family allowances), sharp restrictions on firing, and other job-stabilizing policies (World Bank 2003d). The rise of the public sector in employment became a key factor in segmenting labor markets, with an employment structure skewed toward women and educated groups. In the oil-producing economies of the Gulf Cooperation Council (GCC), it also contributed to severe labor-market segmentation along national-expatriate lines.

Despite a few attempts made to reduce the size of the public sector in the region (Morocco and Jordan are notable examples), MENA economies maintain some of the highest levels of public sector employment in the world. The public sector is estimated to account for 18 percent worldwide excluding China (World Bank 2005b). Public sector employment ranges from a low of 10 percent of employment in Morocco to a high of 93 percent in Kuwait, and averages more than 70 percent among the GCC relative to nationals (table 7.6). The share of public sector wages to current expenditure in the region is also much more significant than elsewhere.

MENA's exceptional public sector employment levels have impacted the region's returns to education through four main channels: first, they have reduced the productivity of MENA's human capital base. The majority of the region's civil service employment has not been in the health and education sectors but in government administration. In fact, some

TABLE 7.6

Public Sector Employment in MENA

(percent)

	Public sector as a share of total employment, 2000	Public sector wages and salaries as a share of current expenditure, 2004
MENA	29	38
Algeria	29	31
Bahrain	28	64
Egypt, Arab Rep. of	29	29
Iran, Islamic Rep. of	28	38
Jordan	44	28
Kuwait	93	41
Libya	66	
Morocco	10	51
Saudi Arabia	79	
Tunisia	22	63
East Asia and Pacific	34	
China	36	
Korea, Rep. of	5	16
Philippines	5	
Latin America and the Caribbean	13	
Brazil	12	25
Colombia	8	15
Ecuador	14	46
Guatemala	15	
Mexico	16	19
OECD	14	
Canada	18	8
Germany	12	
Japan	8	
Spain	15	
United Kingdom	19	
United States	15	8
World	27	
World (excluding China)	18	

Source: World Bank 2005b.

10.5 percent of employment in the MENA region is in government administration. That compares with 4.2 percent in Eastern Europe and the Former USSR, 4 percent in Asia, 4 percent in Africa, and 5.4 percent in Latin America and the Caribbean (see Keller and Nabli 2005).

A body of research on public sector employment argues that human capital in the public sector, especially within the administrative civil service, may not significantly contribute to economic growth, and in fact, may actually reduce economic growth if government workers use some of their powers to generate rents for themselves (see Pritchett 1999). The degree to which the region's exceptional public sector employment

has lowered MENA's growth is not entirely clear, but a recent study estimated that the loss of GDP growth in the MENA region between 1985–1995 strictly due to public administration employment was some 8.4 percent—or close to 1 percentage point per year (Pissarides 2000).

Second, the distorted wages and generous nonwage benefits offered by the public sector have resulted in unrealistically high wage expectations that have exacerbated the unemployment problem. This has become particularly apparent as the fiscal situation in the MENA region changed and public sector job growth slowed down. The queuing for public sector jobs despite diminished job opportunities in Egypt is clear evidence that reservation wages remain high (Assaad 2002). Also, unemployment is generally concentrated among youths with intermediate levels of education (eligible for government employment) and is more limited among workers with low levels of education (generally ineligible for government employment). This pattern suggests that a significant part of this unemployment is the result of high job expectations by workers with some formal education and a low valuation of these credentials by the private sector (World Bank 2003d).

An offshoot of the region's public sector employment has been more indirect intervention of subsidizing employment in the private sector. This has been a particularly important labor-market development in the oil-producing GCC economies, where a large share of the workforce is composed of expatriate labor. As governments have been less able to absorb national labor-force entrants and with national unemployment levels growing, a few GCC economies have adopted strategies of subsidization of national employees in the private sector, further preserving the high wage expectations of national laborers.

Third, the lure of public sector employment has influenced the returns to education by directly influencing educational choices. Until recently, public sector employment was almost a guarantee in the region for persons with higher or intermediate education. As a result, laborers in the region have often sought educational credentials for the sole purpose of securing public sector employment. By rewarding educational credentials in public employment with higher wages, governments in the region have encouraged investment in types of human capital that are not necessarily designed to prepare students to meet the requirements of a modern market economy, but to meet the needs of growing bureaucracies. As a result, individuals in the region have often sought higher degrees to better their chances for public sector jobs, but with little attention to content or quality.

Fourth, public sector employment policies have contributed to significant labor-market segmentations in the region, further lowering the overall productivity of laborers. Labor-market segmentation involves

labor markets where identical workers (from the standpoint of productive abilities) receive different wages or employment opportunities based on other nonmarket characteristics, and where crossover capacity is limited.

The public versus private sector labor-market segmentation runs along several lines, but particularly along education and gender lines. Many of the regional governments explicitly or implicitly ensured employment for secondary levels of education and higher. Thus, those who could complete intermediate levels of education were generally eligible for public sector jobs, while those with lower levels of education were generally ineligible. However, the public sector also emerged to be an attractive source of employment for women. A recent World Bank report (2003c) points to a variety of barriers—both economic discrimination and social norms that underlie a range of civil, commercial, labor, and family laws and practices in the region—that have given rise to this preference. A consequence of barriers to entry in the private sector—both occupational segregation and wage discrimination—has been that substantial proportions of women (a much greater proportion than males) tend to seek refuge in the public sector, where wage setting and hiring take place according to more standardized procedures.

MENA's labor-market segmentation extends beyond the public and private sector divide, however. There is a strong degree of segmentation between the formal and informal sectors (discussed further below), and, particularly among the oil-importing economies of the GCC, between national and expatriate workers. GCC countries are highly dependent on a large expatriate labor force, reflecting the small (but rapidly growing) size of the domestic workforce and the limited domestic supply of adequate skills. In most GCC countries, expatriate workers now account for about three-fourths of the total workforce (Fasano and Iqbal 2003). The wage and benefit differential between expatriate laborers and nationals is tremendous.

Whatever the sources of these lines of segmentation, the consequence has been that workers have been unable to move to jobs that make the fullest use of their skills, which has lowered the productivity of the region's workforce as a whole. Without being able to draw on all of its talents and human capital, MENA's output per laborer has lagged behind that of other regions.

Poor Private Sector Development Policies

While subsidies, credit, and fiscal and exchange-rate policies may have worked together to lower the employment-creating capacity of growth in the past, the fundamental impediment to employment creation in the region has been the shortage of growth itself, a reflection of the lack of

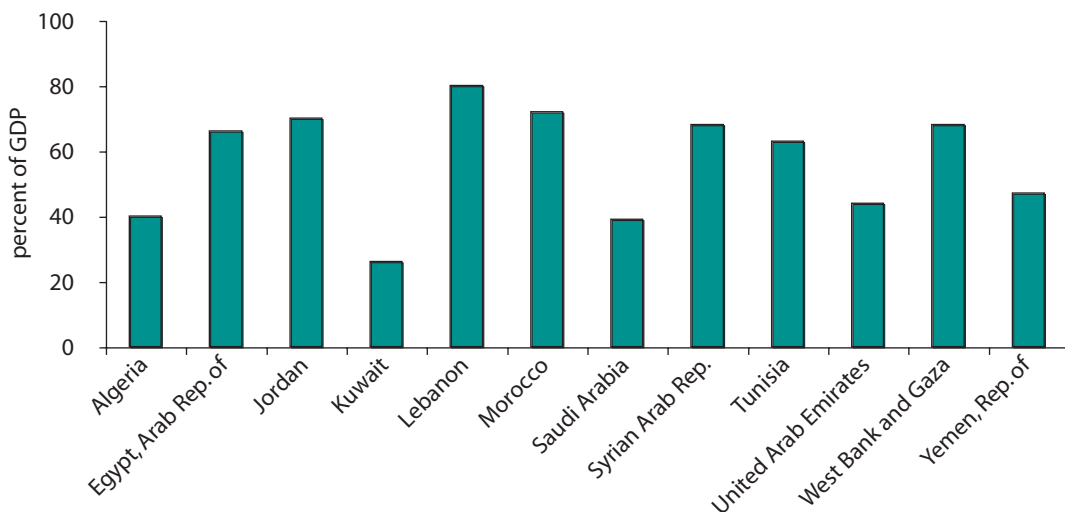
a dynamic and competitive private sector. If the region is to achieve higher employment growth and higher wages, it needs to substantially increase output growth (and productivity), especially by the private sector. Periods of buoyant GDP expansion are almost invariably associated with rising job numbers, while slow-downs bring about higher unemployment (Boltho and Glyn 1995). For the region to increase economic growth, however, it needs to change the engines of growth themselves.

At present, the formal private sector remains underdeveloped in MENA, still emerging from a culture of decades of state-led growth and industrialization. On average, the private sector accounts for less than 50 percent of GDP in the region (figure 7.5). Private sector activity is concentrated in a small number of large firms that have benefited from protective policies, along with a number of microenterprises that account for much of employment but have little access to formal finance, markets, or government support programs (World Bank 2004a). Many policies, taken together, have limited the ability for a stronger private sector to emerge in MENA and be a source of investment and job growth. A host of cumbersome and costly business and regulatory procedures, underdeveloped financial sectors, and insufficient trade exposure have all hindered the creation and functioning of a dynamic and competitive private sector.

Regulatory barriers to private sector investment. Since the late 1980s, most MENA countries have attempted to expand private sector activity.

FIGURE 7.5

Private Sector Contribution to GDP, Early 2000s



Source: World Bank 2005b.

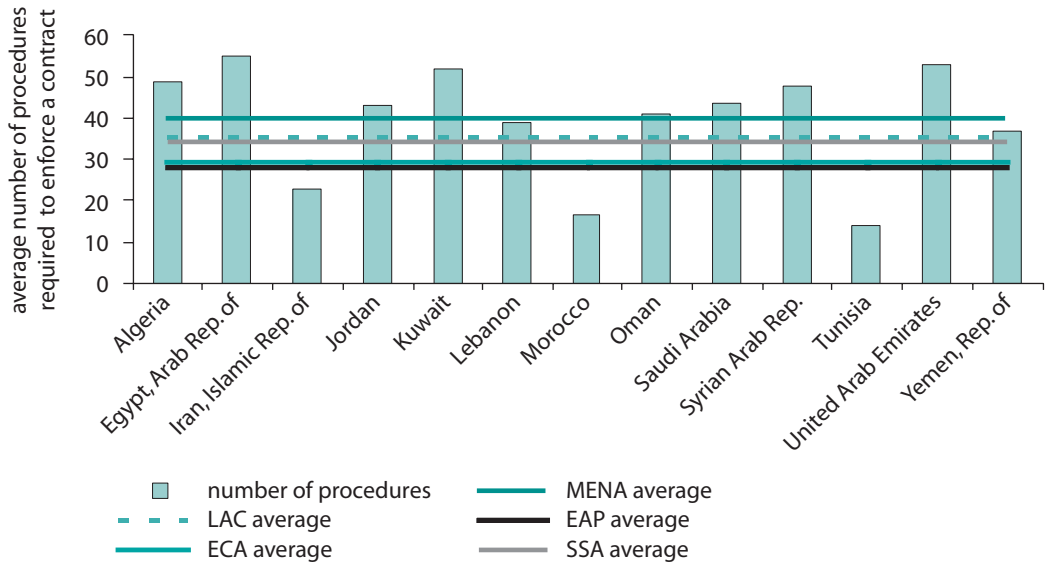
Success has been thwarted, however, by a cumbersome and costly business and regulatory environment—including arbitrary and distorted policies favoring the large number of state-owned enterprises, and bureaucratic behavior that increases costs and uncertainties for businesses—that is not conducive to private business activity.

The World Bank's Doing Business Indicators database, compiled on the basis of surveys of businesses regarding the major impediments to conducting business within countries, points to many areas that stand out as particularly burdensome for the region. Firm start-ups and operations are significantly hindered by the time and financial costs of regulatory and administrative barriers. Minimum capital requirements in MENA are almost five times the world average and well above any other region of the world (World Bank 2005b). These high costs are all the more burdensome, considering the underdeveloped state of the banking and financial sectors. Much of the region's private sector still has limited access to market finance. Banks dominate the financial system, but in general they play a limited role in financial intermediation. Much of the banking sector remains primarily in government hands and is inextricably linked to state-owned enterprises (SOEs), subject to government intervention in its lending and credit allocation policies to SOEs. This intervention has led to a crowding out of the private sector from places where it is permitted to operate (World Bank 2005b). The legal systems also hinder private sector business. Contract enforcement mechanisms are particularly taxing for businesses in the MENA region. On average, MENA businesses must go through 40 procedures to enforce a contract, about one-third higher than the world average and higher than in any other region of the world (see figure 7.6).⁷

Although a number of regulatory policies have impeded the growth of the private sector, a major challenge to the region's development of a strong and competitive private sector is also fundamental weaknesses in governance. Some of these governance weaknesses impact private sector development through the quality of services that businesses receive from the public sector. In areas such as the efficiency of the bureaucracy, the rule of law, the protection of property rights, the level of corruption, the quality of regulations, and the mechanisms of internal accountability, MENA countries have lower levels of quality of administration in the public sector than would be expected given their income levels (figure 7.7). Moreover, the private sector is impacted by the way in which policies are made—whether those in the private sector are able to access information to formulate policy choices, whether they can mobilize for changes, and whether they can contest policies that are poor. In this regard, countries across the region exhibit a pattern of limited government accountability and inclusiveness.

FIGURE 7.6

Contract Enforcement Procedures, 2004

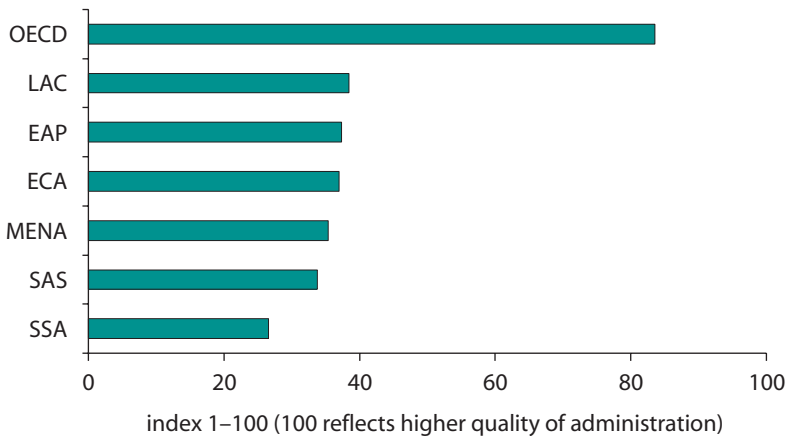


Source: World Bank 2005b (using Doing Business Indicators, World Bank).

Note: MENA = Middle East and North Africa; ECA = Europe and Central Asia; SSA = Sub-Saharan Africa; LAC = Latin America and the Caribbean; EAP = East Asia and Pacific.

FIGURE 7.7

World Bank MENA Index of Quality of Public Sector Administration 2004, by Region



Source: World Bank 2005b.

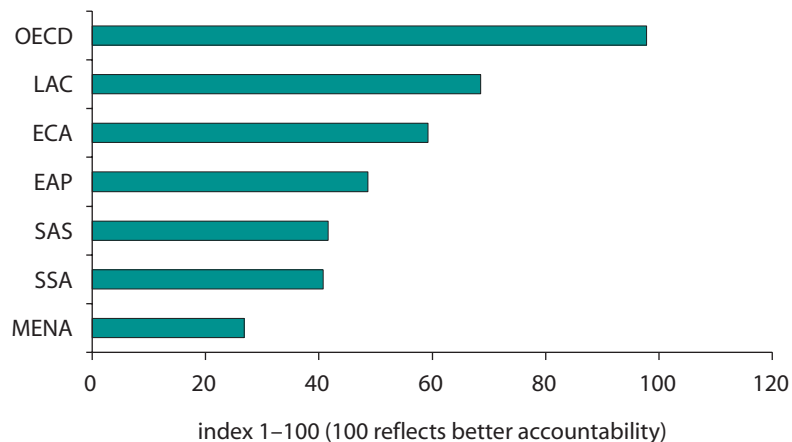
Note: MENA = Middle East and North Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; OECD = Organisation for Economic Co-operation and Development; SAS = South Asia; SSA = Sub-Saharan Africa.

In the World Bank's report on Governance in the MENA region (2003b), public sector accountability in MENA was evaluated through a comprehensive index that measured areas such as openness of political institutions and participation, respect for civil liberties, transparency of government, and freedom of the press, and this *public sector accountability* index has been updated each year (figure 7.8). The index suggests that public sector accountability in MENA is the worst in the world. Creating a better environment for private business will not only require policy change, but improved governance as well, including changes in the role of government and strong improvements in its effectiveness.

Labor regulations. Restrictive labor regulations have also impacted private sector development and employment creation in the region. Minimum wage legislation and restrictions on hiring and firing are widespread in the region. According to the Doing Business indicators, restrictions for hiring in MENA are generally less problematic than in other lower-middle income economies (although hiring procedures remain intensely restrictive in Morocco and Tunisia). However, MENA countries do have particularly onerous procedures for firing workers. An index estimating the ease of *firing* workers (from World Bank 2005a) finds that businesses in MENA countries, on average, have more difficulty than every other region of the world except Sub-Saharan Africa and South Asia (figure 7.9).

FIGURE 7.8

World Bank MENA Region's Index of Public Sector Accountability 2004

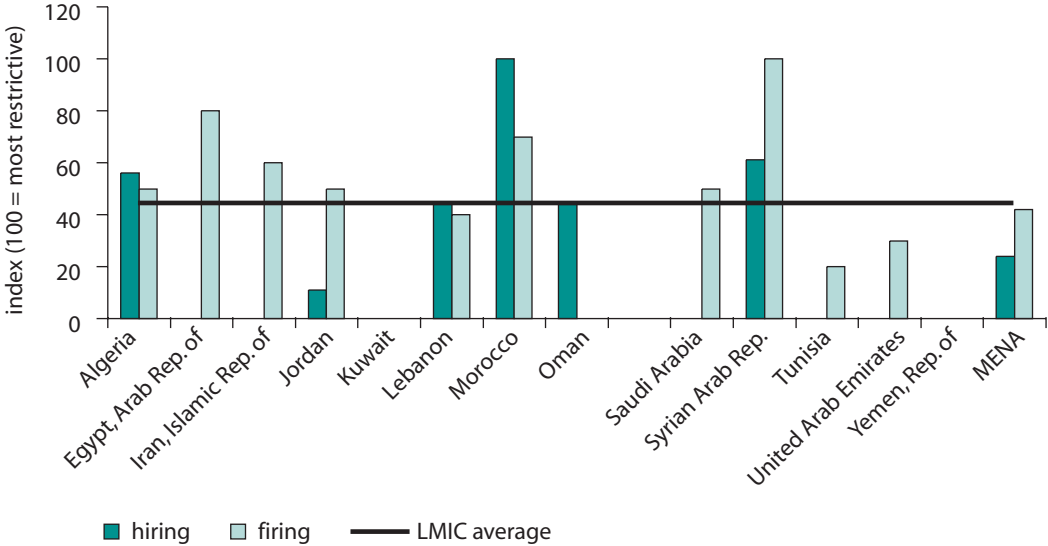


Source: World Bank 2005b.

Note: MENA = Middle East and North Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; OECD = Organisation for Economic Co-operation and Development; SAS = South Asia; SSA = Sub-Saharan Africa.

FIGURE 7.9

Difficulty with Hiring and Firing in MENA



Source: World Bank 2005a.

However, restrictive labor regulations appear to be far less onerous an obstacle to employment creation in MENA than are general constraints to operating a business. In almost all of the investment climate assessments undertaken within the region, labor regulations rank far below other obstacles to investment and productive operation of firms. In Syria, for example, labor regulations ranked as the eleventh (out of 11) in terms of the most severe constraints on the business environment. While about 34 percent thought labor regulations severely impacted the business climate, other issues ranked far more serious among investors. In Algeria, only 13 percent of firms evaluated labor regulations as a major constraint to operation, ranking twelfth out of 13 possible constraints. Far more burdensome have been anticompetitive practices (which 60 percent of firms report as a severe constraint), lack of access to financing (52 percent of firms report as a severe constraint), and the cost of financing (46 percent of firms report as a severe constraint).

In the GCC economies, on the other hand, labor regulation (for both domestic and foreign workers) is a critical constraint to development, as perceived by small and medium enterprises (SMEs). This reflects the significant efforts by GCC economies to compel firms to hire nationals, rather than low-wage expatriates, through a variety of inducements and regulations. In Oman, issues related to the labor market come on top of the constraints mentioned by SMEs. In particular, 41 percent of them mention labor regulation regarding expatriates as a major or a severe

constraint to the development of their firms, and about 35 percent mention both the regulations associated with and skills of Omanis as a major or severe problem. The problems are mostly related to the lack of the availability of qualified Omanis within the quota system, constraints resulting from restriction in hiring expatriates, and the excessive difficulties associated with dismissing nonperforming employees.

Insufficient trade exposure. The region has not opened itself up to one of the greatest sources of employment creation—trade; the region's trade-to-GDP growth from 1980–2000 was about half of the world's pace (World Bank 2003a). Trade expansion, especially in the form of rising exports of manufactured goods, has been one of the major sources of job creation for trade-liberalizing economies, but a legacy of inward-oriented development policies and hesitancy to reform have limited the job-creating opportunities for MENA workers.

The body of empirical research that indicates the employment-creating capacity of outward orientation is large. Outward orientation can impact the returns to education through two distinct paths. Firstly, greater openness unleashes new private investment, which directly raises economic growth, thereby increasing jobs (and thus increasing the returns to education in the labor force). Trade expansion has been particularly job-creation intensive in the case of exports of manufactured goods.

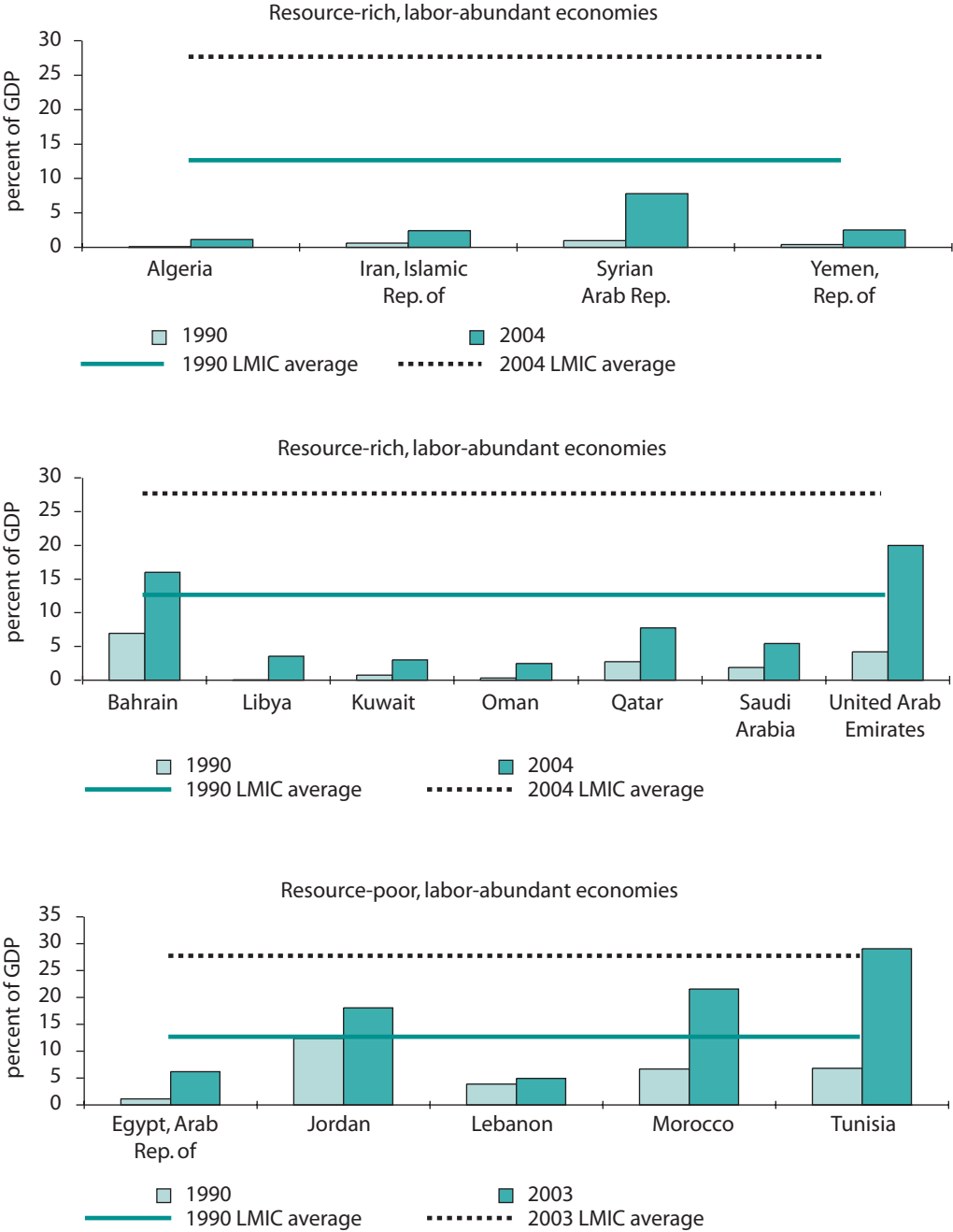
In addition to pure employment creation, openness raises the impact that human capital has on economic growth through the skill demands of trade. Openness fosters competition, encourages superior technologies, increases the demand for high-skilled labor, and promotes learning by doing. Openness obliges industries to confront their inefficiencies. To compete successfully, industries must adapt, thereby creating demand for new skills and trades to do so.

The MENA region's historical models of development have discouraged outward orientation. Heavy import protection, excess consumption of goods and services not traded internationally,⁸ and overvalued and uncompetitive exchange rates have all provided strong disincentives to the growth of trade. As a result, MENA's exports are dominated by oil, with only the small number of resource-poor and labor-abundant economies having fairly well-established non-oil-export sectors (figure 7.10). Few countries in the region have experienced the dynamic growth in non-oil exports that characterizes world trends. The entire MENA region, with a population close to 320 million, has fewer non-oil exports than Finland or Hungary, countries with populations of 5 and 10 million, respectively (Muller-Jentsch 2005).

Although MENA countries have sought to pursue trade more vigorously (particularly through bilateral and regional trade accords), disin-

FIGURE 7.10

Non-oil Exports as a Proportion of GDP, 1990 and 2003



Source: World Bank 2005b.

centives to trade prevail. Tariffs remain high: averaging more than 15 percent, tariffs in MENA countries are higher than in any other region of the world but South Asia. Nontariff barriers also remain an important impediment to greater trade. The actual level of overall trade restrictiveness in the region is typically twice as high when one accounts for the region's nontariff barriers. And, unlike tariffs, nontariff barriers are not transparent or predictable, and therefore strongly suppress trade and investment. Based on overall trade restrictiveness indices (OTRI), a few countries including Morocco, Algeria, and Tunisia have trade policies that are among the most restrictive in the world today (table 7.7).

Growing Informalization

The inability of the private sector to create enough jobs has given rise to a significant expansion of informal sector jobs in MENA. The informal sector, in its broadest sense, consists of both employment and production that falls outside of formal regulation or the tax net or to some degree escapes formal regulations. The sector is generally viewed as residual—a

TABLE 7.7

Overall Trade Restrictiveness Index (OTRI) for MENA and Other Developing Countries, 2001

	OTRI-tariff	OTRI-w/NTB
Algeria	16.3	46.5
Bahrain	8.2	8.8
Egypt, Arab Rep. of	44.0	67.8
Jordan	12.7	24.4
Lebanon	5.5	14.2
Morocco	25.4	50.9
Oman	10.1	15.6
Saudi Arabia	6.7	10.8
Tunisia	24.9	36.7
Mean	17.1	30.6
Chile	6.8	11.5
Czech Rep.	4.0	5.0
Estonia	1.1	2.3
Hungary	6.1	11.3
India	30.0	39.9
Kenya	13.7	14.4
Poland	10.8	15.2
Romania	11.9	15.8
South Africa	7.2	8.9
Australia	4.7	11.6
Average for all OTRI countries	10.7	18.1

Source: Adapted from World Bank (2005b).

place where workers excluded from formal employment could easily engage in subsistence activities.

From surveys of informal sector work, certain generalizations emerge. As noted by Charmes (2000), the informal sector represents: ease of entry; small scale of activity; self-employment, with a high proportion of family workers; little capital and equipment; labor-intensive technologies; low skills; low level of organization with no access to organized markets, to formal credit, to education and training or services and amenities; cheap provision of goods and services; and low productivity and low incomes according to some analysts, including Charmes. In countries in which the informal sector accounts for a large segment of employment, both worker productivity and the returns to education will necessarily be lower than in economies with a larger formal sector.

In recent years, the above views about the informal sector have changed somewhat. While the possibility of an informal sector that is inefficient and has low productivity is still there, it has been pointed out that the informal sector also consists of entrepreneurs who are self-employed and who provide a large number of urban jobs in developing countries across a wide range of industries, occupations, and working situations. Small and microenterprises are not just owned by a majority of the world's working people—these enterprises build markets, expand trade, manage natural resources, fight poverty, generate employment, strengthen communities, support families, and feed most of the world's children.⁹ Further, as noted by Assaad, the informal sector facilitates labor-market flexibilization, allowing employers to tap into an adaptable workforce during periods of expansion and lay off workers during periods of slump (Beneria and Floro 2004). Thus, it is not always clear whether informalization of workers necessarily works in opposition to productivity growth, and the issue can only be settled empirically.

The story in the MENA region does not appear to favor the view that increasing formalization is consistent with higher returns to education. To begin with, the size of the informal sector is, as in most regions and countries, uncertain but large. Informal employment in 1998 was estimated to be about 6.5 million in Egypt, or about 40 percent of total employment (Avirgan, Bivens, and Gammage 2004). Research from the 1980s estimated informal employment in Algeria at about 25 percent of employment, in Morocco, about 57 percent, and in Iran, about 44 percent.¹⁰ Thus, informal employment, representing a large share of the region's job opportunities, is an important element to understanding labor-market outcomes in MENA.

Informalization has also risen in the region despite evidence of a declining wage premium for formal sector work. In Egypt, for example, between 1988–98, real wages in the formal sector fell by twice the rate of

those in the informal sector (Avirgan, Bivens, and Gammage 2004). Over about the same period, however, the proportion of nonagricultural workers lacking either a formal contract or social security coverage increased by about 5 percentage points. In 1998, about 33 percent of employed workers in Egypt had neither formal contracts nor social security, up from 28 percent in 1990 (Wahba, Jackline 2000).

Equally important, the increase in informalization has disproportionately affected workers with more education. While the probability of informalization for workers with less-than-intermediate education as a whole increased from about 47 percent to 54 percent, the probability for informalization for workers with secondary education or above has increased from about 13 percent to 20 percent (a more-than-50-percent increase) (table 7.8). In addition, one of the key indicators that the informalization in Egypt has been of the “refuge” variety, rather than driven by entrepreneurship, is the correlation between informality growth and unemployment growth. Workers with the highest rise in unemployment rates (with intermediate and higher-than-intermediate, but below university, education) also experienced the greatest rise in probability of informal sector employment. Evidence, also from Egypt (Galal 2005), based on in-depth field surveys of informal enterprise suggests that formalization into an improved business environment would be beneficial to the economy, entrepreneurs, and workers.

Thus, although it is not clear what the implications of informalization *per se* might be in general, increasing informalization in MENA does not appear to be associated with higher productivity and higher returns to education. Moreover, informalization in MENA reflects both difficulties in operating a business in the formal environment and the overall deterioration of labor-market opportunities. The rising education of the informal sector mirrors the rising education of the labor force overall.

TABLE 7.8

Growth in Informal Sector in Egypt by Education, 1990–1998

Highest level of education completed	Probability of informality 1990	Probability of informality 1998	Probability of unemployment 1988	Probability of unemployment 1988	Increase in informality probability (%)	Increase in unemployment probability (%)
Illiterate	61.8	67.2	1.8	1.9	9	6
Read and write	35.0	41.6	3.0	3.6	19	20
Less than intermediate	40.4	47.9	5.9	4.1	19	−31
Intermediate	17.1	28.8	15.9	18.5	68	16
Higher than intermediate	12.0	16.0	10.3	14.7	33	43
University	7.9	9.6	8.2	9.6	22	17
Post-graduate	8.7	4.3	1.6	0.8	−51	−50
Total	28.3	32.5	5.4	7.9	15	46

Sources: Staff estimates from Wahba 2000; Assaad 2000.

Summing Up

The MENA region can be characterized by two separate but mutually reinforcing labor-market features that have lowered the economic returns to investment in education. Rising unemployment has meant fewer workers (who are potentially employable) are contributing to productive activities, and lower (than average) productivity of those employed has meant further reduction in the productive capacity of the labor force.

Modest labor-market outcomes in MENA stem partially from structural imbalances between the supply of and demand for labor. On the supply side, demographic transition in the MENA region lagged behind other regions, partly because investment in education in MENA, especially of girls, was initiated later than elsewhere. The region now enjoys a demographic gift, but the increasing participation of women in the labor force, especially the educated among them, is contributing to rapid increases in the supply of labor. On the demand side, the rapid economic growth of the 1960s and 1970s made it possible to absorb the growing population into employment. Since the mid-1980s, however, economic growth has faltered while the expansion of education has continued. As a result, a mismatch between the supply of and demand for skilled (and unskilled) labor is growing, leading to rising rates of unemployment in the region and low returns to investment in education.

Beyond supply and demand imbalances, several policies seem to have played less than a positive role in determining labor-market outcomes, thus diminishing the returns to investment in education. A legacy of public employment led to a suboptimal use of labor and created expectations that could not be fulfilled. Excessive and costly regulations constrained the growth of an efficient and dynamic private sector, thus lowering the capacity of countries in the region to create productive jobs. As a result, the informal sector has been on the rise, absorbing some educated individuals who cannot afford to be unemployed. Further, outside labor-market policies, macroeconomic, and structural policies were not always consistent with taking advantage of trade opportunities. Not surprisingly, the economic returns to education were not as high as might have been expected and hoped for.

These conclusions have one major implication for the education reform agenda: education reform in and of itself will not be sufficient to produce better development outcomes. To reap the full benefits of better-quality education, complementary reforms to enhance the demand for decent work and to create more productive uses of the human capital resulting from investing in education are necessary. These reforms are not only important for improving the returns on past educational investments, but also for ensuring that the right educational choices are made in the future.

Endnotes

1. Cross-country growth estimations inherently assume that more schooling directly raises the level of human capital employed by firms engaged in value-producing activities. The rising rates of unemployment in MENA over the last two decades mean that an increasing portion of the region's investment in education is sitting idle.
2. Unemployment in Algeria was close to 30 percent in 2002. With rising oil revenues and as part of the country's Economic Recovery Program, however, large-scale temporary employment schemes have dramatically lowered the rate of official unemployment (to 23.7 percent currently), although the longer-term sustainability of these jobs is questionable.
3. A number of policies, such as incorporating more youth into higher levels of education, lengthening military service, and shortening work weeks, have been put in place to reduce unemployment, but none of these have really worked. To the contrary, they seem to have done little more than postpone dealing with the unemployment issue realistically and creating underemployment.
4. Calculated where data are available for distribution of labor force by education: Egypt (average returns 5.5), Morocco (average returns 7.9), Jordan (average returns 5.6), and Tunisia (average returns 4.4).
5. Not including the recent dramatic upturn in growth as a result of the surge in oil prices.
6. Measured by the growth of the average educational attainment of the population ages 15 and above, from Barro-Lee educational attainment database.
7. World Bank 2005b.
8. Excess consumption of goods and services not traded internationally has bid up their prices and made them more profitable than traded goods.
9. International Labour Organization SEAPAT Programme on the Informal Sector.
10. Forum, Vol. 3. No. 1. March 1996.

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