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Challenges of Economic Development in the Middle East and North Africa Region

JULIA C. DEVLIN

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in the Middle East and North Africa Region**

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Challenges of Economic Development in the Middle East and North Africa Region

JULIA C. DEVLIN
University of Virginia, USA

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**CHALLENGES OF ECONOMIC DEVELOPMENT IN THE MIDDLE EAST
AND NORTH AFRICA REGION**

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Introduction

The story of development in the Middle East and North Africa (MENA) region is a tale of the interplay between two forces: external factors and a rivalry of interests. Over time, large public sectors, rather than markets have evolved as the primary mechanism to manage these forces – by enhancing certainty, real or perceived and mediating interests – with both intended and unintended consequences for growth and development. The aim of this book is to assess development policy choices in the post WWII era from the vantage point of these two forces, their interaction and the institutional framework which is given at any point in time. As such, the book surveys primary challenges facing policy-makers in the region today; namely low total factor productivity growth, management of volatile oil and natural gas revenues and rising water scarcity, post-conflict development, raising private investment and diversifying exports, lowering high unemployment, improving education quality and addressing poverty incidence.

To the general public, the Middle East and North Africa region (MENA)¹ is perhaps best known for its vast oil wealth, geopolitical

¹ The countries classified as Middle East and North Africa include Algeria, Bahrain, Egypt, Iraq, Iran, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, the West Bank and Gaza, United Arab Emirates, and Yemen. World Bank data for MENA regional averages is a subset of this group and includes Djibouti although Djibouti is not included in the general discussions throughout the text. Given its small size, inclusion of Djibouti is not considered to bias the regional estimates for MENA countries in a significant way.

significance, and youthful demographics. Today, with 60% of the world's oil and more than 40% of natural gas reserves, much of it produced by sovereign entities and with less than 5% of the global population, a handful of governments within the region have become net creditors on a global scale. The region increasingly has the financial resources needed to stimulate growth entirely from within. Arab countries span an area end to end which covers more than one fifth of the globe from west to east (Drysedale and Blake, 1985a) – larger than China, Europe, the United States or Canada. People within these lands are also linked by complementarity in labor and capital, a sense of unique cultural identity and many speak a common language – Arabic which is also the language of the Qu'ran.

The region's geostrategic location has long attracted the attention of the world's great powers, with attendant consequences for uncertainty and dislocation. No other grouping of states belongs to as many geopolitical realms as the countries of the MENA region. The coastal states of North Africa for example are simultaneously African, Mediterranean, Islamic, and Arab as well as historically, economically, and politically influenced by close proximity to Europe (Drysedale and Blake, 1985b). Rapid growth in China and the East Asian economies has increasingly exerted stronger gravitational pull in terms of goods and capital flowing eastward, heightening the region's central importance as the apex of trade and commerce linking Europe, Africa and Asia. Large numbers of youth, an estimated 35% of the working population navigate multiple cultural and social affinities and identities along with significant intergenerational gaps in human experience, given the rapid pace of modernization in the post-war period.

For development practitioners, the MENA region is of even greater interest, by virtue of its unique combination of growth challenges – critical to the people in these lands – and to the global economy at large. It is home to some of the richest (Qatar) and poorest (Yemen) countries in the world – contributing to a set of regional dynamics and policy regimes which differ from other developing areas. MENA houses one of the oldest aid agencies in

the developing world and some of the largest recipients of foreign aid per capita. Intra-regional dynamism is linked to a greater extent with remittance flows and the accumulation of financial surpluses in the Gulf Cooperation Council (GCC) countries as opposed to exports.² The region is prone to shocks in the form of commodity price volatility and windfalls, climate variability and water scarcity as well as a legacy of political upheaval and wars.

Vast oil wealth and participation in the Organization of Petroleum Exporting Countries (OPEC) creates dual and related challenges for policy-makers in terms of global oil production and domestic fiscal policy. This has contributed to a global oil market in which a significant share of world oil is produced by relatively high-cost producers. At the same time, a large portion of the region's population resides in arid and semi-arid areas, where rainfall comes unpredictably for some three months every year. Per capita fresh-water availability region-wide is the lowest in the world, yet water is locked into relatively low-valued uses in agriculture – even among the high per capita income countries in the region.

The MENA region has a long history of globalization. It also relies heavily on three to four sectors to generate export potential and many economies have traditionally retained a limited range of import partners. Most of the region's export commodities are volatile in price – namely oil, natural gas, phosphates and agriculture – creating challenges for fiscal policy and exchange rate management. Non-traded goods and services have tended to predominate, leaving many industries and firms struggling to increase competitiveness in the wake of rapidly-integrating global markets. Tradable industrial output is among the lowest in the developing world. MENA's existing firms and entrepreneurs tend to be older than the average for emerging markets and there is a high concentration of family-owned firms. Financial markets remain somewhat volatile, given the lack of depth in terms of instruments and volume; the rapid growth of Islamic financial instruments in the

² The states of the Gulf Cooperation Council include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

region and worldwide, has implications for further development of the region's financial markets.

A legacy of public employment guarantees has focused educational attainment and skills development on public employment potential and provided avenues of mobility for many – particularly women. At the same time, however, large numbers of government employees, along with large cohorts of first-time job seekers and lack of full adjustment in labor markets contributes to high rates of youth unemployment and perpetuates segmented labor markets. In Algeria, for example, more than 80% of the female labor force was employed by the public sector in the 1990s, while in Kuwait the majority of the private labor force consists of foreign nationals. The region's most pressing challenge – youth unemployment estimated at over 40% in some countries – affects first-time job seekers with at least a secondary education certificate – many of them women, as public hiring rates are declining and female labor force participation is rising.

Across the region, relatively high levels of social welfare prevail, in part, through the continuation of high levels of public employment and generous subsidies on food and energy together with generally wide access to social services such as education and basic health. Countries in the Middle East and North Africa region spend more on the unemployed, the disabled and the poor, than what industrialized countries did at similar levels of development. For a host of reasons, family and kinship networks also play an important economic and social role. In Jordan for example, approximately 40% of the elderly live with their children. However, the real impact of such policies and entitlements can vary significantly within countries and across groups. In Egypt, for example, poverty rates were 34% in rural Upper Egypt and 5% in metropolitan areas in the 2000s. Middle-class and upper-income families tend to benefit disproportionately from energy subsidies. There are horizontal inequalities across groups and regions, based on economic, social, political and cultural status.

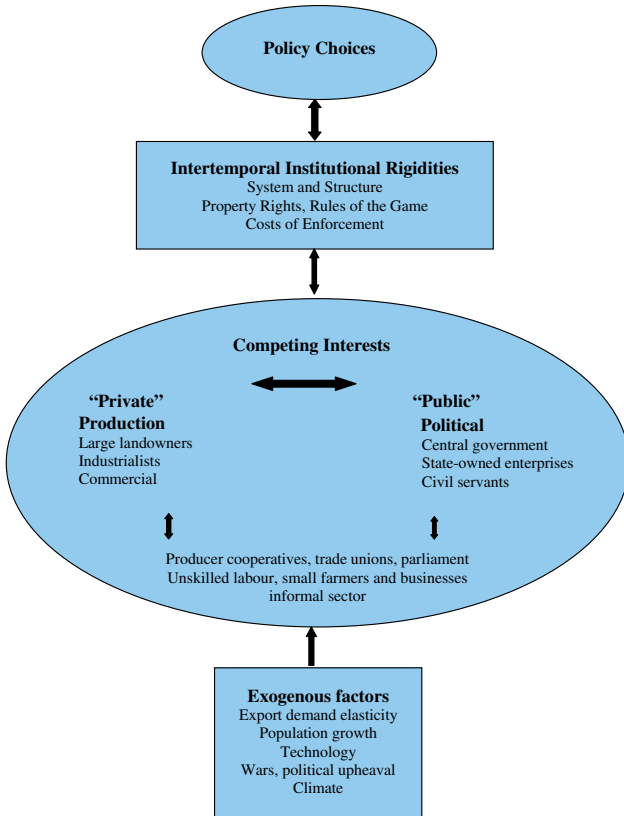
The degree and form of government intervention underlies many of these challenges, as do external forces and a rivalry of

interests which give rise to policy choices. These are linked with factors both generic to developing countries and unique to the region. Economists would identify the link between openness and demands for more protection; sociologists might highlight tendencies towards egalitarianism, social affinity and kinship, alongside a determined and competitive individualism. Historians tend to single out the region's harsh physical environment – a pervasive sense of uncertainty and the tenuousness of power – exemplified by shifting influences between an urbanized core, entrepreneurial hinterlands and cosmopolitan coastal cities. Regardless of its origins, understanding this dynamic is important for understanding growth and development in the Middle East and North Africa region – where it has been, and where it is going.

Many of the development challenges described earlier are not unique to MENA countries and the tools employed to address them can and are used in a multitude of contexts. The hope is that much will be gained in enhancing understanding of this region in terms of the continuity and modalities of how such issues are addressed.

An important aspect of this story relates to the political economy dynamic underlying policy choices. In this regard, much has been written about the role of MENA governments as large, interventionist entities with a proclivity towards redistribution according to the terms of an unwritten, yet powerful “social compact” between governments and populations (Roy, 1980; Hansen, 1991; World Bank, 1995, 2003). Others describe the dynamic in terms of the workings of the “rentier state” where the rents from oil wealth are distributed by the state, with limited accountability to the body politic through the absence of a clear link between public spending and taxation (Beblawi and Luciani, 1987; Anderson, 1987).

This survey aims for a more general and dynamic approach. It attempts to look more broadly at development policy choices in terms of the relative strengths and interplay between two central forces – competing state/government and private interests and external factors – bounded by the institutional constraints which



Source: Author. Adapted from Ekelund and Tollison (1997). *Politicized Economies: Monarchy, Monopoly and Mercantilism*. College Station, Texas A&M University Press.

Fig. 1 A Political Economy Framework for the MENA Region

are given at any point in time.³ (Figure 1) A historic account of agricultural reforms in the latter part of the 19th century sheds some light on this dynamic:

“...Whatever (external) pressure there may have been to introduce a ... system of registration, taxation or private property rights, the actual result of policy was generally a bargain between the central government, local councils and men of rural power which was clearly neither in the

³ This framework is adapted from Ekelund and Tollison (1997).

interests of efficient administration nor the most profitable development of the region's agricultural resources." (Owen, 1981).

The stylized diagram in Figure 1 is a rudimentary attempt to capture factors underlying this dynamic. It is intended to be sufficiently general to explain discrete and continuous policy outcomes as well as encompass discussion of the region's broad thrust of development policy and specific challenges. Outcomes at any point in time, can be viewed as the by-product of two main forces – a balance of competing domestic interests and external forces. This "moving equilibrium" of sorts is also influenced by institutional mechanisms such as property rights enforcement and rules of the game. A central feature of this approach is that the boundary between government/private activity is fluctuating rather than static reflecting a tenuous balance between state/government action and private entrepreneurship. In economies with high levels of government activity and where governments are players as well as rule-makers, present and future balances between governments and private actors can be highly uncertain, given that much depends on a set of unarticulated social practices and tacit assumptions beyond the control of any individual actors including policymakers (Frydman and Rapaczynski, 1994).

This approach is intended to be descriptive, not predictive. Underlying interests include commercial, industrial and government, both collective and dispersed. The impact of exogenous factors is intertwined with competition and collusion across such interests and the relative strengths of these interests working individually and/or in groups. At any given point in time, institutional constraints and costs of enforcement imply a set of costs and benefits affecting economizing behavior on the part of competing domestic interests. Over time, property rights are shifted primarily by the relative balance of these interests but also by the impact of exogenous factors such as population growth over longer periods. Government and private interests are active in a manner which is both dispersed and collective; in some MENA countries public and private distinctions also coincide historically with

specific family and ethnic groups. Mutual tensions and suspicions, together with political and economic bargains coexist between these groups, heightened at times, by ethnic and religious differences. A central outcome of this dynamic, has been protection over various segments of economic activity primarily in the form of output restraints and entry barriers. Similar to other economies, with high levels of government activity, there is a tendency for transfers of power from one cohesive group to another to be limited to synergistic mergers or anti-competitive arrangements (Frydman and Rapaczynski, 1994).

Government actors can and do allocate resources to state-owned enterprises as well as private parties and insiders – working individually as well as in groups, who pressure for more or less government intervention depending on the influence of external factors and the strength of opposing groups. Social forces and developments are also key drivers of underlying costs and benefits of the shift in government-private boundaries.

Policy outcomes resulting from this political economy framework tend to be a rather unpredictable mix of the comparative strengths between the competition of public and private interests, exogenous factors and institutional rigidities. Lack of certainty regarding the costs and benefits for winners and losers from discrete policy shifts, contributes to a general bias towards the status quo and inertia in policy-making. Furthermore, in situations where resources are dispersed across groups maintaining asymmetric information about costs of reform, the status quo tends to persist (Alesina and Drazen, 1991).

However, shifts do occur and are influenced at some intervals, by leverage gained from external resources, overlapping areas of interest, mobilizing unskilled labor and regulatory change or institutional reforms. Policies of “Infithah” or macroeconomic opening to foreign investors during the 1970s, for example, were facilitated by oil windfalls, which eased domestic pressures for continued protectionism. Some sectors were opened up for investment; others were not. However, as the growing trade protectionism of the 1980s and 1990s demonstrated, such policy shifts are neither

permanent nor irreversible. From a practical perspective, achieving economic change, either through discrete shifts or continuous modification in policy tends to be facilitated by the emergence of new and promising opportunities, multiple rounds of bargaining and consultation at various levels, inaction by opposition groups and/or more general agreement on the basis of eliminating obvious “bads.” Successful development interventions tend to exhibit all or some of these characteristics. Such changes rarely occur purely as a result of highly visible, unilateral, linear approaches and proactive advocacy by proponents on the basis of public good rationales.

Over time, the confluence of these factors has also contributed to high levels of public interventionism in MENA countries, at levels generally higher than those found in other developing areas—with significant consequences for growth performance. In this environment, interventionism also has a self-reinforcing logic. Markets can and do deliver unpredictable and, at times, undesirable outcomes, further enhancing demands for more public intervention. Over time, growth prospects are dampened by higher costs of production and service delivery, along with a higher real and perceived threshold for competitive entry into new products, technology and markets. Total factor productivity growth and living standards stagnate. Interests also become more difficult to mediate when public sectors have a stake in the game. This raises the demand for more intervention and mediation, which in turn, only heightens prospects for non-cooperative outcomes in society-at-large, and tends to perpetuate a scenario in which much problem-solving is undertaken by small groups with private information.

This Gordian Knot of tangled growth directions is the subject of this book. In Part I, Chapter 1 compares MENA countries to other middle-income regions in terms of the basic characteristics of developing economies. Within the region, there are obvious and growing differences between the governments of the Gulf Cooperation Council and the rest of the region.

Chapters 2 and 3 survey the region’s rapid growth in the 1960s and 1970s, collapse in the 1980s and moderate growth resurgence since the latter half of the 1990s. Chapters 4, 5 and 6 look more in

depth at the challenges of managing abundant oil wealth, scarce water resources and development in the post-conflict environment, respectively.

In Part II, policy issues related to the microeconomy, industrial structure and trade relations are examined. Chapter 7 reviews the strengths and weaknesses of the business environment; while Chapter 8 explores questions surrounding the region's pace of global integration. Chapter 9 reviews the challenges and opportunities for industrial restructuring.

In Part III, Chapter 10 surveys population dynamics and educational achievements, while Chapter 11 surveys the functioning of the region's labor markets and explores underlying factors contributing to high unemployment. Chapter 12 reviews social spending from the vantage point of poverty and inequality. Chapter 13 reviews the nature and effectiveness of development assistance and Chapter 14 concludes with suggestions for the future.

Two windows of opportunity have opened in recent years. A new and rising generation of leaders is emerging, with a more proactive approach to addressing underlying problems. The oil windfall of the early 2000s has also made the resolution of many of the region's challenges within reach. These two factors place MENA countries at the cusp of a historic and economic shift toward a potentially very different growth trajectory – one which more fully maximizes the region's combined resources of land, capital, and people.

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Is MENA Exceptional?

The countries of the Middle East and North Africa region (MENA) constitute a predominantly middle-income region with unique historical, cultural, economic and political significance that extends well beyond the region's physical borders. A snapshot of the MENA economies would reveal the following. The majority of MENA economies are classified as middle-income (see Table 1). Population growth has been among the highest in the world and labor force growth has increased at an even faster pace. Approximately 80% of men and 30% of women participate in the labor force; aggregate unemployment rates are above 10%. Of those who are employed, about one-third work for the public sector. Nearly 80% of men and 60% of adult women are literate; out of every 1000 persons, 229 use a mobile phone, about 50 have a personal computer and 89 have access to the internet. Nearly 30% of the population lives on less than US\$2.50 per day.

This chapter looks in greater depth at some of these features of MENA economies and highlights the differences and similarities between MENA countries as well as comparisons with other middle-income regions. It seeks answers to the following questions: How do MENA countries in the region differ from each other and most significantly with other middle-income countries? What are the implications of these characteristics for development priorities?

Table 1 MENA Countries by Per Capita income (2005)

Low Income GNI \$875 or Less	Lower Middle Income GNI \$875 + Less Than \$3,465	Upper Middle Income GNI \$3,465 + Less Than \$10,726	High Income GNI \$10,726 +
Yemen	Algeria Egypt Iran Iraq Jordan Morocco Syria Tunisia West Bank and Gaza	Lebanon Libya Oman Turkey	Bahrain Israel Kuwait Qatar Saudi Arabia United Arab Emirates

Source: World Bank (2007) *World Development Indicators*. Washington DC: World Bank.

MENA: A REGION DEFINED BY DIVERSITY

Perhaps more than other developing regions – aggregate measures tend to mask significant diversity in the MENA region. The region houses some of the larger states (in population) in the developing world – Iran and Egypt – and some of the smallest – the United Arab Emirates (UAE) and Qatar. At the same time, it is home to some of the poorest (Yemen) and the richest countries (Qatar) among developing regions. Countries tend to be characterized by their diversity in natural resource wealth, economic structures, population and development policy approaches as well as commonalities in terms of culture, religion, and a distinctive historical and social continuity. To capture the richness of this diversity, economists, political scientists and sociologists have classified countries within the region into various sub-groupings (see Table 2). The basis of such classifications tends to be structural factors such as commodity dependence and population size, as well as measures of social and ethnic homogeneity and diversity.

In this book, relative differences between countries in the MENA region are defined on the basis of measures that matter for

Table 2 Common Classifications for MENA Countries

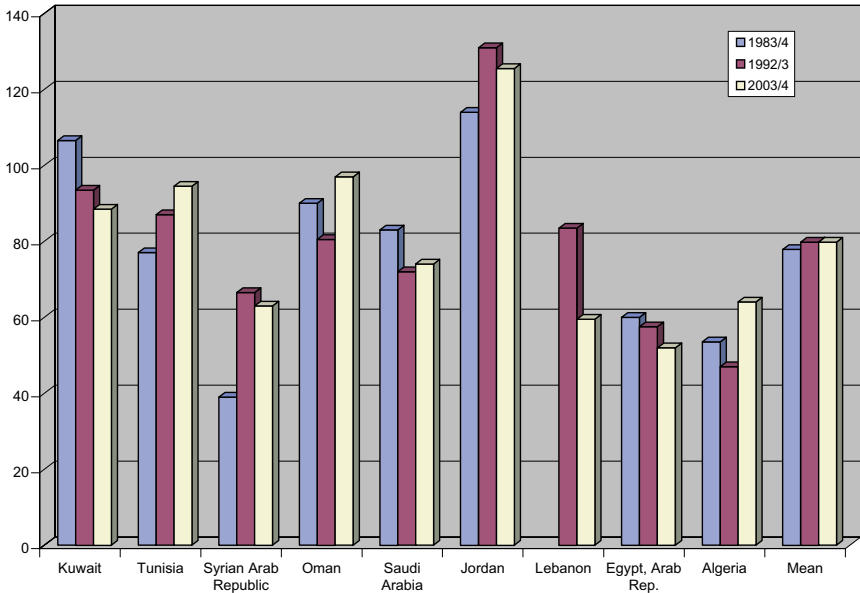
Economic	Political Economy	Social
World Bank (2003) <i>Resource Poor,</i>	Richards and Waterbury (1998)	Drysdale and Blake (1985)
Djibouti, Egypt, Jordan Morocco, Tunisia, Lebanon, West Bank and Gaza	<i>Agro Poor</i> Yemen <i>Watchmakers</i> Israel, Jordan, Tunisia, Syria	<i>Linguistically Diverse,</i> <i>Religiously Cohesive</i> Morocco, Algeria, Iran <i>Religiously Diverse,</i> <i>Linguistically Cohesive</i> Egypt, Yemen, Kuwait, Oman, UAE, Bahrain, Saudi Arabia, Syria, Lebanon-multiple divisions
<i>Resource Rich, Labor</i> <i>Abundant</i> Algeria, Iran, Iraq, Syria, Yemen	<i>NICs</i> Egypt, Morocco <i>Oil Industrializers</i> Iran, Iraq, Algeria, Saudi Arabia	<i>Linguistically Diverse,</i> <i>Religiously Diverse</i> Turkey, Iraq
<i>Resource Rich, Labor</i> <i>Importers</i> Bahrain, Kuwait, Libya, Oman, Qatar, Saudi Arabia, United Arab Emirates	<i>Coupon clippers</i> Libya, Kuwait, Oman, Bahrain, Qatar, United Arab Emirates	

Source: World Bank (2003) *Trade, Investment and Development in the Middle East and North Africa*, Washington DC: World Bank, A. Richards and J. Waterbury (1998) *A Political Economy of the Middle East and North Africa, Second Edition*. Boulder: Westview Press and A. Drysdale and G. Blake (1985). *The Middle East and North Africa: A Political Geography*. New York, Oxford University Press.

Note: Religious diversity includes both interfaith and intrafaith differences.

growth including openness to the global economy, per capita income, levels of government involvement and related measures of institutional quality. As indicated in Chapter 2, these variables appear to have significant implications for growth performance and development policy and planning.

In this regard, more persistent differences appear between the economies of the Gulf Cooperation Council (GCC) – namely Saudi Arabia, Kuwait, the UAE, Qatar, Bahrain and Oman and other countries in the region, with the exception of Jordan and Tunisia at times. In general, GCC economies tend to have high per capita income linked with vast oil wealth and higher measures of



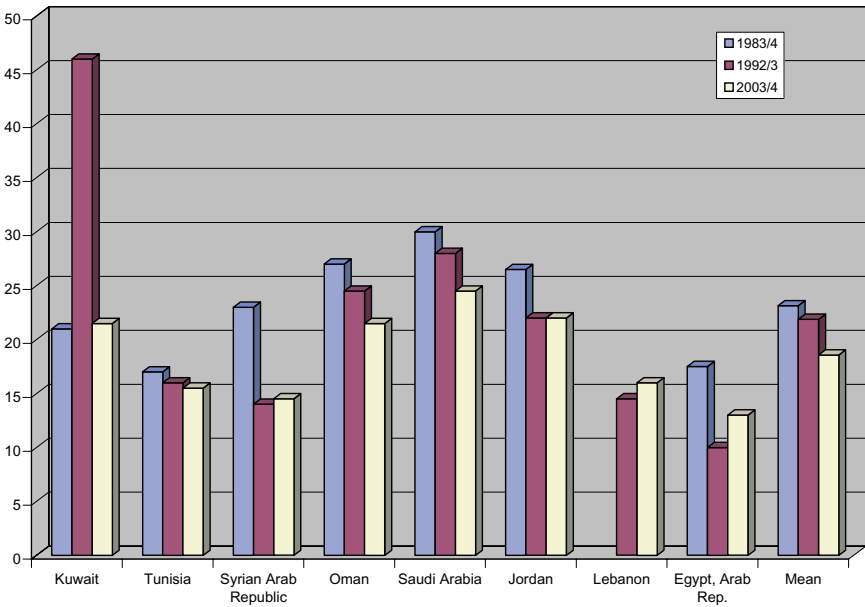
Source: World Bank Development Indicators Database.

Note: Mean includes countries shown.

Fig. 1 GCC-Non-GCC Trade (% GDP)

openness relative to economies such as Syria, and Egypt (see Fig. 1). At the same time, the size of government consumption tends to be large, relative to non-GCC countries (see Fig. 2). Finally, with regard to indicators of institutional quality, GCC economies tend to rank more highly than other countries in the MENA region, although data availability is limited with regard to comparing indicators across a significant period of time.

The GCC economies are also the engine of much of the growth across countries in the MENA region. For countries such as Jordan, Egypt, Morocco, Yemen, Syria and Tunisia, growth of real GDP is strongly associated with remittance outflows from and the accumulation of financial surpluses in the GCC. This is unlike other developing regions and emerging markets where intra-regional dynamism tends to occur through higher export flows (Ilahi and Shendy, 2008).



Source: World Bank Development Indicators Database.

Note: Mean includes countries shown.

Fig. 2 GCC vs Non-GCC Government Consumption (% GDP)

CHARACTERISTICS OF LESS DEVELOPED ECONOMIES – DOES MENA FIT THE MOLD?

One of the main distinguishing features of developing countries is low labor productivity. This is linked with factors such as the size and share of the labor force in agriculture, levels of capital accumulation – both physical and human, rates of population growth, concentration in primary commodity exports and institutional structures (Thirwall, 2006a). For the Middle East countries,¹ average labor productivity, measured in terms of output per

¹ Estimates for the Middle East and North Africa are based on available data for the Middle East which includes Bahrain, Iran, Iraq, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Syria, the United Arab Emirates and Yemen. North Africa includes Algeria, Egypt, Morocco, Sudan, and Tunisia.

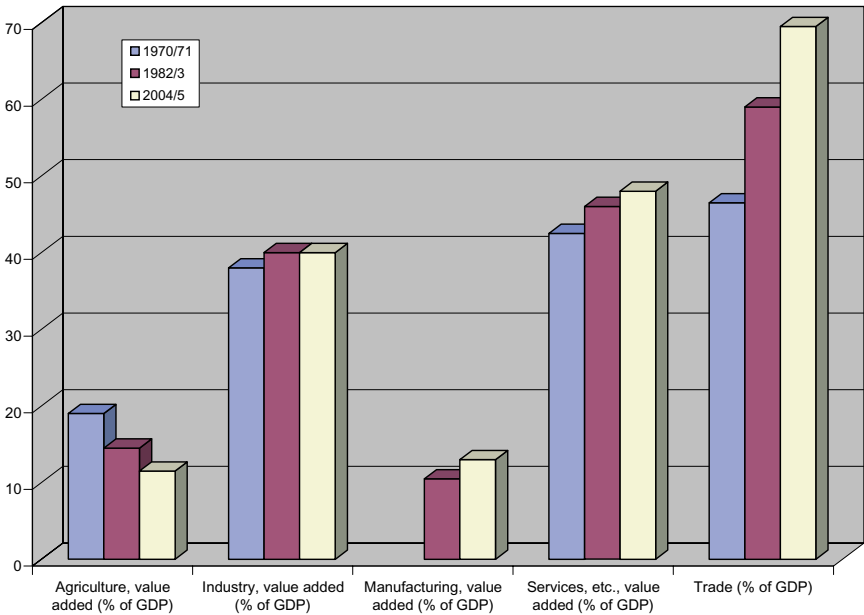
Table 3 MENA Labor Productivity from Global Perspectives (Output per workers in constant \$2000 at PPP)

	1996	2006
World	15824	19834
Industrialized countries & EU	52876	62952
Central and South Eastern Europe (Non-EU)	11787	18121
East Asia	6347	12591
South-East Asia & Pacific	8068	9419
South Asia	5418	7998
Latin America & Caribbean	17652	18908
Middle East	22130	21910
North Africa	12967	14751
Sub-Saharan Africa	4490	5062

Source: ILO Key Indicators of the Labor Market Report Fifth Edition (2007) Geneva: ILO.

worker (in constant US\$2000 at PPP) is relatively high, estimated at US\$21,910, close to the world average and roughly comparable with levels in Latin America, the Caribbean and Central and South-Eastern Europe (ILO, 2007a). However, regional averages are much lower and growth of labor productivity has virtually stagnated over the last decade (see Table 3). Workers in East Asia and the Pacific on the other hand, nearly doubled labor productivity levels over the same period, while in Latin America and the Caribbean, they increased by 7%. For the GCC countries such as Qatar, Saudi Arabia and the UAE, the situation is more poignant; productivity per worker was at or above 120% of US levels in 1980 and declined precipitously to 40% or less in 2005 (ILO, 2007b). This poses a significant challenge for promoting sustainable improvements in per capita income for nearly every country in the region.

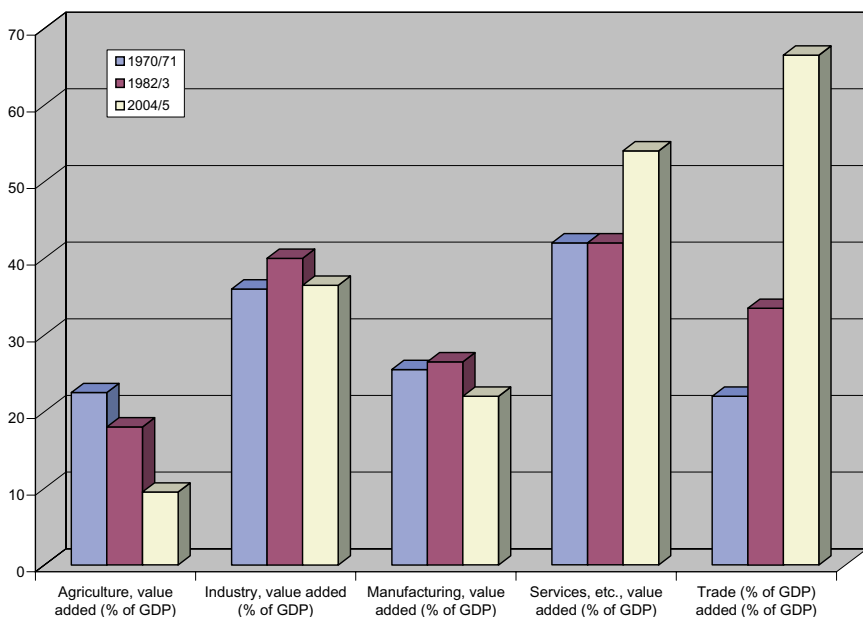
A dominant characteristic among developing economies is a high concentration of income earned in low-productivity, diminishing returns activities. For many economies, this is characterized by a high share of employment in agriculture and informal sector activities such as petty services, relative to manufacturing and industry.



Source: World Bank database; data based on national accounts; subject to revision. Data for industry includes manufacturing sectors.

Fig. 3 Structure of Output: Middle East & North Africa

Relative to other middle-income economies, the MENA region as a whole, demonstrated slightly higher shares of agricultural output as a percentage of GDP and lower levels of manufacturing value added in 2004/5 (see Figs. 3 and 4). For countries such as Egypt, Yemen, Iran, and others, agriculture is an important source of temporary and permanent employment as well as foreign exchange earnings. During the 1990s, for example, agriculture absorbed nearly 8% of new labor force entrants; labor productivity increased moderately from an estimated US\$ 1575 (2000\$) in agricultural value added per worker in 1990–92 to US\$ 1919 in 2001–03 relative to an increase from US\$ 535 to US\$ 717 for middle-income countries overall (World Bank, 2007). Rural areas are also home to most of the region's poor, located to some extent in geographically distinct areas such as the regions of Upper Egypt, Northeast Syria, Northwestern parts of Tunisia, and Southern Lebanon.



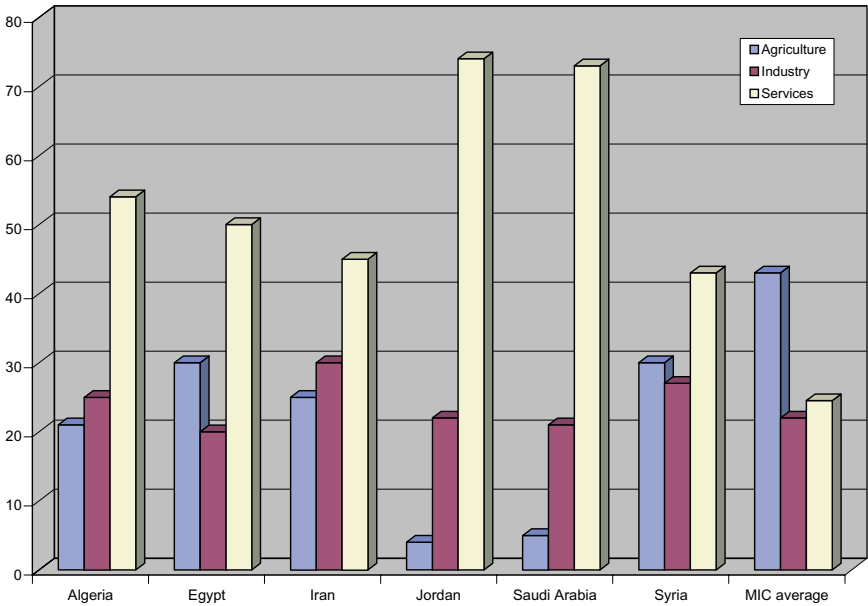
Source: World Bank database; data based on national accounts; subject to revision. Data for industry includes manufacturing sectors.

Fig. 4 Structure of Output: Middle-Income Countries

At the same time, the region as a whole has the lowest level of per capita fresh water availability in the world. Agricultural land as a percentage of total land area at 23% in 2003–5 is well below middle-income averages of 35% (World Bank, 2008).

With respect to employment, for countries such as Egypt, Syria and Iran to a lesser extent, the percentage of labor force in agriculture is more approximate to average levels for middle-income countries (see Fig. 5). On the other hand, GCC countries such as Saudi Arabia and Qatar are in striking contrast to this pattern, as is Jordan, with less than 5% of the labor force in agriculture.

In general, surplus labor in agriculture is linked with diminishing returns, related to fixed inputs of land and a relatively income inelastic demand for agricultural output. Growth in industry and manufacturing, on the other hand, is generally associated with the potential for increasing returns to scale, rising labor



Source: World Bank database; data based on ILO data; subject to revision. Data for Algeria, Egypt (2003/4) Iran (2005) Saudi Arabia, Syria (2001/2) Jordan (2002/3) Middle-Income Countries (MIC) (1992/3).

Fig. 5 Employment by Sector (% total employment)

demand and higher productivity, since all factors are variable inputs and demand is income elastic. The underlying factors contributing to the MENA pattern are multifaceted and are discussed in later chapters.

Low levels of capital accumulation

Another characteristic of developing countries is low levels of capital accumulation. Physical capital refers to the accumulation of plants, machinery and equipment while human capital refers to skills and expertise embodied in the labor force through education and training. In the process of growth, low levels of capital accumulation are both the symptom and the cause of underdevelopment.

Economic growth can be characterized as a generalized process of capital accumulation. But this requires sufficient levels of investment and savings. In general, the amount of physical capital accompanying labor in a typical developing country is no more than one-twentieth the level in the industrialized world (Thirwall, 2006b). From the perspective of raising labor productivity and per capita income over time, the rate and efficiency of capital accumulation are critical.

For the MENA countries, shares of gross domestic savings and investment in GDP are roughly comparable for middle-income countries although less than the levels in East Asian economies. Average gross savings rates were approximately 30% of GDP in 2006 (World Bank, 2008).

Much of government consumption is concentrated in wages and salaries paid to government employees at levels, which in some cases are twice as high as middle-income countries (see Table 4). Military expenditure as a share of GDP is roughly twice the level in most middle-income countries. On the revenue side, shares of taxes on international trade tend to be higher on average than in other middle-income regions, primarily in Algeria, Egypt and Jordan. Tax revenue as a share of GDP is also higher than average; in Algeria and Morocco tax revenues as a share of GDP are about twice the middle-income average. Overall, on the revenue side, there is a significant gap between GCC and non-GCC countries with regard to general levels of taxation.

High population growth

Relative to industrialized countries, developing countries have high rates of population growth and high ratios of young people to the total population (see Table 5). This is due to high birth and fertility rates and rapidly declining death rates. A young population structure has implications for savings rates and labor force growth rates because even if fertility rates are declining, there is a large cohort of the population in child-rearing age. This is referred to as the hidden momentum to population growth and it has been a

Table 4 Government Financial Statistics

	Algeria	Bahrain	Egypt	Iran	Jordan	Kuwait	Lebanon	Morocco	Tunisia	MICs
Central government debt, total (% of GDP)	47	34.5			87			63	60.5	
Compensation of employees (% of expense)	32	57	33	46.5	67	35.5	31.5	49	41	25
Customs and other import duties (% of tax revenue)	15	36	18	34	17.5	75.5	12	14.5	11.5	
Expense (% of GDP)	24	26	23	19	28.5	37	30	28.5	28	
Goods and services expense (% of expense)	6	15.5	10	12.5	5.5	24	3	13.5	8	13.5
Highest marginal tax rate, corporate rate (%)		0	40	25		0		35		
Highest marginal tax rate, individual rate (%)		0	32	44.5		0		44		
Interest payments (% of revenue)	9	4	29	1	8	1	80.5	16	9.5	10.5

(Continued)

Table 4 (Continued)

	Algeria	Bahrain	Egypt	Iran	Jordan	Kuwait	Lebanon	Morocco	Tunisia	MICs
Military expenditure (% of central government expenditure)	15	16.5	13	21	29.5	21	14	15	6	14
Military expenditure (% of GDP)	3.5	4.5	3	4	8.5	7.5	4	4	2	2
Military personnel (% of total labor force)	2.5	6.5	4	2	6.5	2	6	2	1	1
Social contributions (% of revenue)		5		12.5	1		1		18	16
Subsidies and other transfers (% of expense)	50	13	18	33	11.5	28.5	10.5	19.5	34	42.5
Tax revenue (% of GDP)	31	4	14	6	17.5	1	15.5	22	21	12
Taxes on international trade (% of revenue)	13	4.5	12	7	11.5	2	9.5	12.5	8.5	7

Source: World Bank database; data based on the IMF Government Finance Statistics; subject to revision.

Note: Data are for 2002/3.

Table 5 Population and Labor Force Statistics

	1960	1970	1980	1990	2000	2005
Middle East and North Africa Region						
Population growth (annual %)	3	3	3	3	2	2
Population density (people per sq. km)	—	14	19	25	31	34
Population in the largest city (% of urban population)	32	33	32	27	25	25
Fertility rate, total (births per woman)	7	7	6	5	3	3
Labor force participation rate, female (% of female population ages 15–64)	—	—	20	24	28	31
Middle Income Countries						
Population growth (annual %)	2	2	2	2	1	1
Population density (people per sq. km)	—	27	32	38	43	45
Population in the largest city (% of urban population)	17	17	17	15	14	14
Fertility rate, total (births per woman)	4	5	3	3	2	2
Labor force participation rate (% of female population ages 15–64)	—	—	62	64	63	63

Source: World Bank database, based on UN data; others; subject to revision.

prevalent feature for many MENA economies. MENA populations have traditionally been characterized by a relatively high ratio of dependents, that is population aged 0–14 which at 0.5% of the working age population in 2005 remains high compared to other middle-income regions. Since the 1990s, the share of youth as a percentage working age population (aged 15–64) has been approximately 35% (World Bank, 2007b).

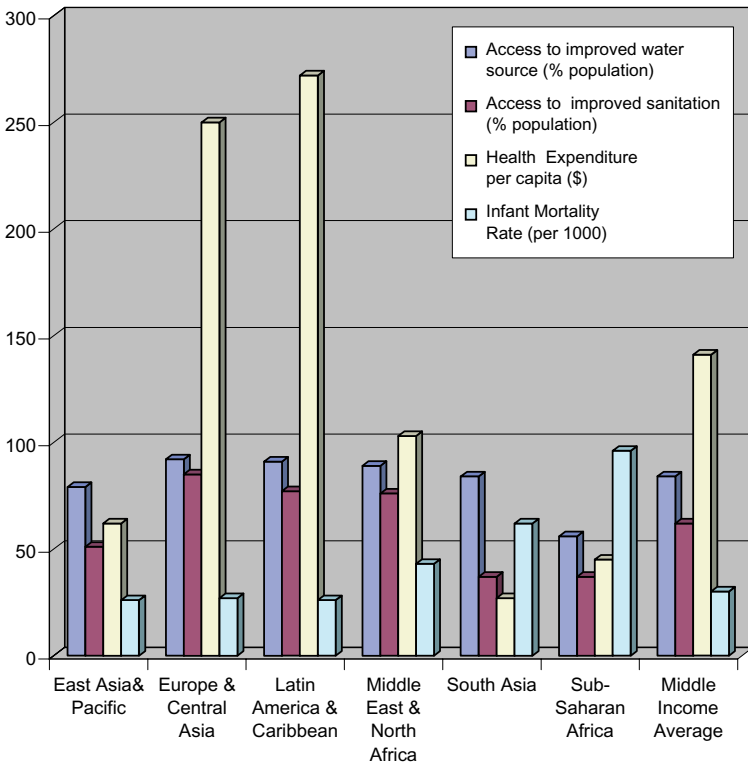
From the vantage point of growth, rapid population growth, like capital accumulation, is both the cause and consequence of poverty and underdevelopment (Thirwall, 2006). In low-income regions, high birth rates reflect high rates of child mortality and the desire for income insurance in the presence of market imperfections. At the same time, very high rates of population growth can exacerbate poverty by reducing savings and the marginal productivity of labor, particularly in agriculture, by reducing capital per worker. Over the longer term, however, population growth can generate higher investment and technical progress, given complementary resources and other factors of production. In the MENA countries today, higher rates of population growth relative to other middle-income regions have been linked with a young population created by slowly declining fertility rates, rapidly declining mortality and low levels of female labor force participation – which are significantly less than the level of middle-income countries on average (Table 5).

Nutrition and health

Populations in developing countries tend to differ from those in the industrialized world in terms of nutrition and health levels. This is particularly severe in low-income countries, where large segments of the population suffer from protein-energy malnutrition and lack of access to safe drinking water. Amongst children, malnutrition is a major cause of infant mortality, which is ten times higher in developing countries (Thirwall, 2006). Rates of infection and disease, particularly for tuberculosis, malaria and AIDS remain perilously high. Low income is a major cause of malnutrition which in turn is a cause of low income to the extent that it lowers labor productivity and efficiency.

The average child today in the MENA region can expect to live 10 years longer than one born in 1980. (World Bank, 2006) This signals dramatic improvements in human development indicators. However MENA countries on average, continue to have somewhat higher infant mortality rates than other middle-income countries.

Life expectancy at birth, another significant indicator of general health conditions, was on average 68 years for men and 72 years for women in 2005 and roughly comparable with other middle-income regions; health expenditure per capita was lower than average, with a level of dependence on external resources nearly twice as high as in other middle-income countries. With regard to measures of health risks associated with access to clean water, the MENA region is roughly comparable with other middle-income regions. (see Fig. 6)



Source: World Bank (2007) *World Development Indicators*. Washington DC: International Bank for Reconstruction and Development.

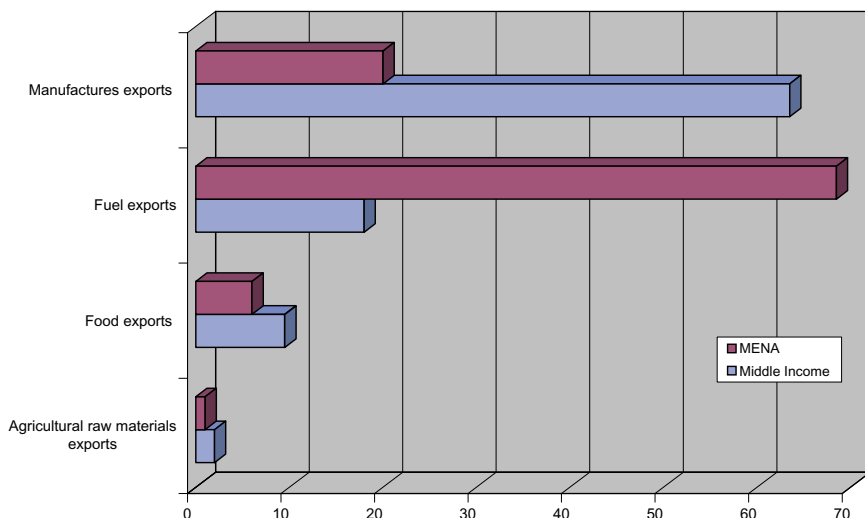
Note: Data are for 2004; Infant mortality, life expectancy are for 2005.

Fig. 6 Health Indicators

Primary commodity exports

For many developing countries, integration with the rest of the world tends to be dominated by high levels of primary commodity exports and reliance on manufactured imports. This has consequences for per capita income growth, depending on trends in export and import prices otherwise referred to as the terms of trade. In MENA countries, primary commodities dominate export revenues to a much larger extent than in other middle-income regions (see Fig. 7). At the same time, MENA economies exhibit high and rising rates of domestic energy use, with average annual percentage growth in energy use at 4.4% from 1990–2005 relative to 1.6% in middle-income regions (World Bank, 2008). Shares of manufactures in total exports are considerably lower than in other middle-income regions. MENA countries also tend to be net food importers rather than exporters.

In some cases, the barter terms of trade or the ratio of export prices to import prices has been declining for primary goods

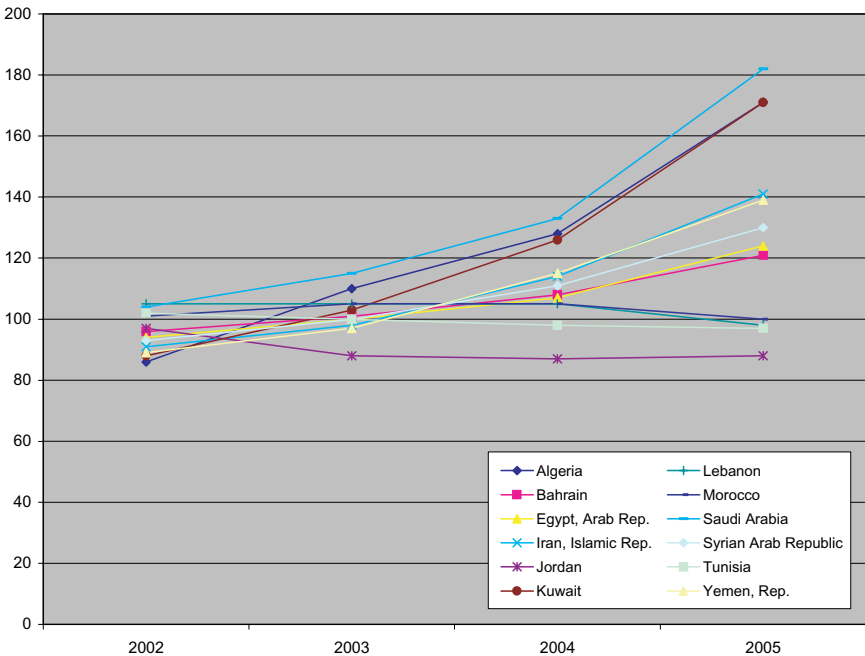


Source: World Bank database; data based on UN comtrade database; subject to revision.

Fig. 7 Structure of Exports (% merchandise exports) 2003/2004

relative to manufactured goods; primary commodity prices also tend to be volatile and the income elasticity of demand is relatively inelastic. This has contributed to chronic balance of payment deficits and a high degree of volatility for many developing regions, including at times, the MENA countries.

However, since the early 2000s, terms of trade among MENA countries have increased significantly due to higher energy prices and there is growing divergence within the region between energy exporters such as Saudi Arabia, Kuwait and Algeria relative to energy importers such as Morocco (see Fig. 8). This has implications for growth prospects across countries in the region and is likely to further accentuate the differences between GCC and non-GCC countries as well.



Source: World Bank; data based on UNCTAD data; others; subject to revision.

Fig. 8 Net Barter Terms of Trade (2000=100)

Weak institutional structures

The role of institutions for economic growth and development in particular, the necessity for a minimum level of rule of law, protection of property rights and constraints on power and corruption is becoming more prevalent in studies of development. However, there is ongoing debate among economists regarding linkages between institutions and growth, the possibility of reverse causality and omitted variables. Institutions are viewed as being critical for influencing other growth factors such as geography and levels of physical and human capital (Acemoglu, 2003). While measurement issues remain a problem,² for developing countries overall, there tends to be a significant gap in indicators of institutional effectiveness relative to industrialized countries, with particular implications for processes of investment, education and trade.

Relative to middle-income countries, the MENA countries score relatively well on indicators such as government effectiveness, and control of corruption and less well on average for measures of regulatory quality and voice and accountability (see Table 6).

Within the region, measures of government capacity and accountability also vary widely and the most significant differences appear to lie between the oil-exporting countries of the GCC and the rest of the region, excluding Jordan and in some cases, Tunisia. Based on measures of government effectiveness, GCC economies such as Qatar, Bahrain, the UAE, and Kuwait, along with Tunisia and Jordan, rank significantly higher on indices related to the capacity of government to formulate and implement policies and deliver services. Countries such as Syria and Iran are ranked less highly.

² Most empirical analyses focus on measures of institutions related to the quality of governance, the extent of legal protection of private property and the limits placed on political leaders, all of which tend to be based on subjective perceptions and assessments of country experts, international investors and others.

Table 6 Institutional Quality

	Rule of Law Percentile Rank (0-100)	Government Effectiveness Percentile Rank (0-100)	Regulatory Quality Percentile Rank (0-100)	Control of Corruption Percentile Rank (0-100)	Voice & Accountability Percentile Rank (0-100)
Algeria	31	43.1	27.8	42.7	24.5
Bahrain	66.7	66.4	71.7	71.4	27.4
Egypt	53.8	38.9	35.1	42.2	17.8
Iran	24.8	24.2	5.9	33.5	10.1
Jordan	62.4	62.1	62.9	67.5	28.8
Kuwait	74.3	64.5	65.9	73.8	35.6
Lebanon	40	37	51.7	35.9	31.3
Morocco	53.3	56.4	47.8	56.8	28.4
Qatar	81.4	70.1	64.9	78.6	31.7
Saudi Arabia	57.6	45	53.7	61.7	9.1
Syria	36.2	14.7	9.3	29.6	5.3
Tunisia	60.5	70.6	58	62.1	13.9
United Arab Emirates	69	76.3	73.7	83.5	25.5
Yemen	15.2	17.1	24.9	33	18.8
MENA avg	51.87142857	49.02857143	46.66428571	55.16428571	22.01428571
Middle income average	49.1	49.65	49.8	49.3	50.75
High income average	82.7	82.9	83.5	83.4	77.1
Low income average	23.2	22	23.2	23.7	26.7

Source: World Bank (2006) Governance Indicators Database, data for 2006; subject to revisions.

Similar results are also apparent with regard to institutional capacity related to the control of corruption – which includes respect of citizens and the state for institutions that govern interactions among them. Again, GCC countries such as the UAE, Kuwait, Qatar, Bahrain in addition to Jordan rank near the top, while countries such as Yemen, Lebanon and Syria rank considerably lower. With regard to measures of voice and accountability, nearly all countries in the region rank significantly below other middle-income regions, with countries such as Kuwait, Lebanon, Jordan, Qatar and Morocco ranked generally higher than other countries in the region.

Other characteristics of developing countries include both symptoms and causes of underdevelopment – namely high unemployment, low levels of education, uneven income distribution and high poverty incidence. These are reviewed in the following paragraphs.

Common challenges-unemployment

Relative to industrialized countries, developing countries generally experience much higher levels of unemployment, lower levels of education and higher measures of income inequality.

With regard to unemployment, the challenge of surplus labor, particularly in rural areas, is linked with high levels of both disguised and open unemployment in urban areas as a result of high levels of rural-urban migration. For the developing world at large, the jobless and under-employed amount to nearly one-third of the working age population (Thirwall, 2006). MENA countries have rates of unemployment that are significantly higher than average for middle-income regions and even higher among the youth. In 2005, for example, the percentage of unemployed workers averaged 11% of the total labor force for MENA countries, compared with 6% for middle-income countries overall and 10% in Europe and Central Asia. Unemployment rates in East Asia and the Pacific over the same period were approximately 5% (World Bank, 2008).

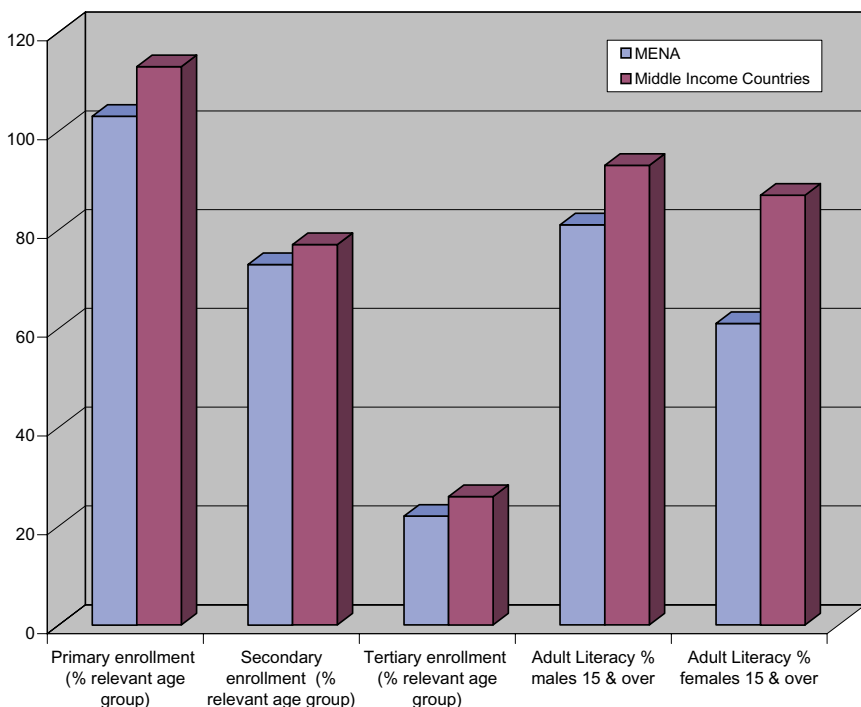
Addressing high unemployment rates is clearly the overriding challenge for policymakers in the region.

Education for all?

Relative to the industrialized countries, developing regions tend to have lower levels of primary, secondary and tertiary education enrollment rates as well as lower adult literacy rates. Such measures convey valuable information regarding the flow and stock of human capital, respectively. Low levels of human capital accumulation in turn create obstacles for the development of new industries and the ability to absorb new technology in addition to making people less adaptable and amenable to change. Low human capital also impairs the ability to manage and administer enterprises and organizations at all levels (Thirwall, 2006f).

For many countries in the MENA region, ratios of primary, secondary and tertiary enrollment are roughly in line with middle-income regions overall. The gap in female adult literacy rates however, is considerably wider than the middle-income average (see Fig. 9). Relative to the industrialized countries, educational attainment in secondary and tertiary levels tends to be lower; adult illiteracy tends to be high in comparison. Issues related to education quality are addressed in subsequent chapters.

With regard to measures of global interconnectivity, access to the internet, at 89 people per 1000 people in 2005 was roughly comparable with the East Asia and Pacific average but less than the middle-income average of 115 and significantly lower than levels in Europe and Central Asia (190) and Latin America and the Caribbean (156). The number of broadband subscribers, or population with access to cable modems and other high-speed technologies per 1000 people was less than average levels in low-income regions in 2005. Similarly, expenditures on Information and Communications Technology (ICT) which include computer hardware, software and integration services at \$66 per capita were less than half the level in other middle-income regions (\$149) and lagged



Source: World Bank database; data subject to revision.

Note: Data for literacy rates are for 2006.

Fig. 9 Education Indicators (2005)

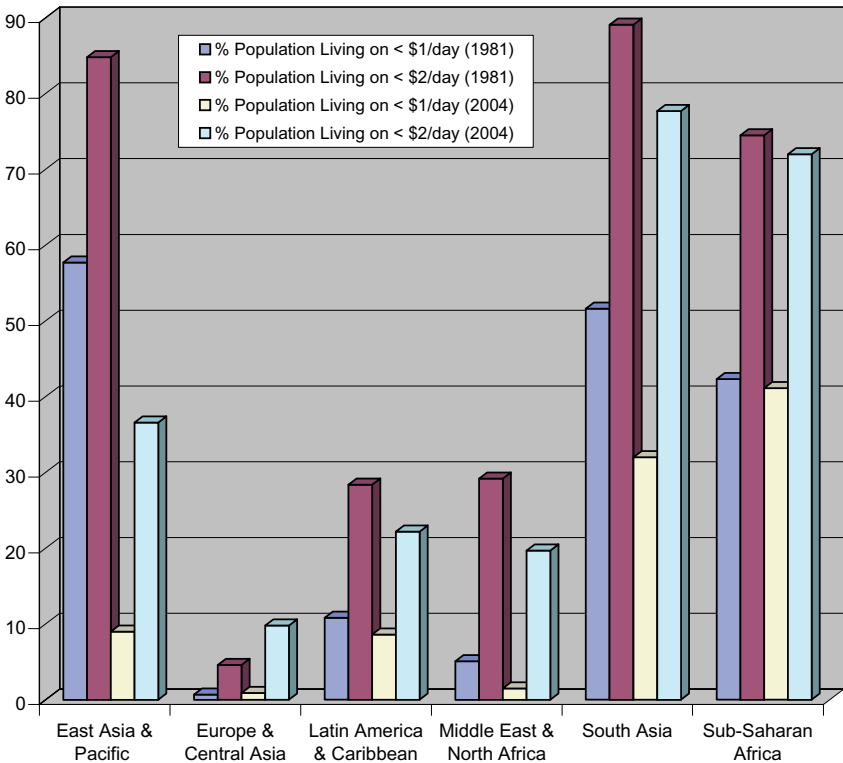
well behind averages of more than \$270 in Europe and Central Asia and Latin America and the Caribbean.³

Income inequality and poverty incidence

For most developing regions, the distribution of income, wealth and power tends to be significantly less equal than in

³ Data are from the International Telecommunication Union's World Telecommunication Development Report database and compiled in World Bank, World Development Indicators.

industrialized countries. Growth tends to benefit a small group of elites with access to productive assets and international markets and technology. This is also a challenge to MENA countries. Vertical income inequality refers to the distribution of income across individuals and households; horizontal income inequality, is more difficult to measure and is based on differences in income across groups in society, on the basis of religion, class, gender, race, and others, with generally restricted mobility between groups. In general, among the most critical factors



Source: World Bank (2007) *World Development Indicators*. Washington DC: International Bank for Reconstruction and Development.

Fig. 10 Poverty Incidence

underlying high income inequality and poverty are land tenure and urban bias in education as well as public infrastructure and investment.

With regard to other middle-income regions, MENA economies have relatively lower levels of income inequality and poverty incidence. However, rural poverty incidence tends to be higher and there is vulnerability in living standards of the general population, particularly with regard to differences in measures of poverty between \$1 and \$2 per day (see Fig. 10). Common forms of measuring poverty internationally are based on the calculation of international poverty lines with poverty incidence measured as the percentage of people living on less than US\$1 and US\$2 per day at 1993 international prices.

Income inequality in MENA countries, as measured by a Gini Index, or the extent to which the distribution of income deviates from a perfectly equal distribution are relatively low, compared with other middle-income regions. This suggests that MENA countries have a relatively equitable income distribution levels in better than Latin America and the Caribbean.

This is also apparent from measuring the ratio of income held by the top 10% to the bottom 10% in each country, with similar results (see Table 7).

Table 7 Inequality

	Gini Index	% Share Income Top 10%	% Share Income Bottom 10%	Year
Algeria	35.3	26.8	2.8	1995
Egypt	34.4	29.5	3.7	2000
Iran	43	33.7	2	1998
Jordan	38.8	30.6	2.7	2003
Morocco	39.5	30.9	2.6	1999
Tunisia	39.8	31.5	2.3	2000
Yemen	33.4	25.9	3	1998

Source: World Bank (2007) World Development Indicators.

CONCLUSION

Relative to other middle-income regions, the MENA countries have abundant wealth in the form of oil and natural gas resources and related export earnings, along with a young, dynamic population which has greater access to health and education services than any previous generation. At the same time however, countries remain challenged by relatively limited domestic production potential due to both external factors and policy choices related to export demand and capital flows, an arid climate and low levels of industry and manufacturing output and exports. Labor productivity growth over the period of the mid 1980s to early 2000s virtually stagnated and is declining in some countries. There is huge potential for enhancing interconnectivity with the global economy.

Within the region, there are growing differences in economic structure, size of government and linkages with the rest of the world between GCC and non-GCC countries. GCC countries tend to have smaller populations, higher levels of mineral wealth and larger governments relative to non-GCC countries. They have also maintained fairly open economies with regard to trade flows and low levels of taxation on imports. Measures of institutional quality also tend to be higher than the MENA average; gains in human development indicators have been more recent.

The region as a whole faces a set of common challenges, the most critical of which is lowering unemployment, particularly among youth, in addition to sustaining dramatic improvements in access to health and education and lowering poverty incidence. A key ingredient to addressing these issues is raising total factor productivity growth – an issue which has plagued MENA economies since the 1970s.

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State Formation, Consolidation, and Development, 1960s–1980s

For the first 20 years following independence, Middle East and North Africa (MENA) economies achieved high income growth and spectacular gains in human welfare. From approximately 1960 to the mid-1980s, per capita GDP rose more than seven times national markets were integrated more closely and infant mortality rates declined by half. (Iqbal, 2006) This was even more remarkable given the state of underdevelopment which characterized most newly independent states.

This chapter seeks to answer the following questions. First, what do existing theoretical and empirical studies of growth tell us about challenges of sustaining growth in the MENA region? What underlying factors drove the choice of development strategies in the post-WWII period to the 1980s? Are there significant differences in growth and development strategies for this period across countries in the region?

DEVELOPMENT POLICY AND PLANNING

Economic development can be defined as a sustainable increase in living standards including material consumption, education, health, and environmental protection (World Bank, 1991). It can also include important attributes such as attaining more equality of opportunity, political freedom, and civil liberties but these are not the primary focus of this book. From a theoretical perspective, economists have traditionally considered an increase in per capita

income as a good proxy for other attributes of development. Many of the indicators used to measure progress such as infant mortality, school enrollment and others are in fact, correlated with income per capita growth. However, the correlation is not perfect – this measure does not necessarily encompass improvements in meeting basic needs for food, education, healthcare, and the factors delineated above. Thus, development necessarily includes more than rapid income growth but it is difficult to achieve a host of social and political objectives without growth in per capita income.

Much of growth theory describes a process of increasing output linked to investment, savings, and capital accumulation (Thirwall, 2006a and World Bank, 1991). At the core of this process are increasing returns activities. Growth theory and development policy have thus focused on measures to overcome the constraint of domestic physical capital through building infrastructure and raising savings in order to generate higher levels of investment and growth in income (Solow, 1957). A separate but related group of models stresses the foreign exchange constraint or the difficulty of financing import needs (for capital equipment) with exports (Little 1982). These two-gap models of domestic savings and foreign exchange constraints allow for development assistance to help finance imports and investment.

In classical and neoclassical growth models, the process of increasing output slows, as the rate of profit declines with diminishing improvements in productivity. Falling marginal product of inputs is offset by exogenous technological change which keeps per capita output growing over time. The implication is that if countries have access to the same technology, growth rates could be expected to converge across the industrialized and developing countries since the returns to capital would be higher in poorer countries given their lower levels of capital accumulation.

In practice, however, average per capita incomes of the poorest and middle thirds of all countries have lost ground steadily over the last several decades compared with the average income of the richest third (World Bank, 2000). Convergence is more of a hope

than a reality. Technological change has not been equal across countries nor has it been exogenously transmitted to most developing countries, due in part, to import and other constraints. However, even if countries had access to the same technology, national growth rates would still differ because of human capital and the incentives to adopt new technology which differ significantly across countries. This is the central insight of “new” growth theorists, which builds on studies of the link between education and human capital and puts human capital accumulation and innovation at the center of the growth process. These models are centered on the role of technological change as being endogenous to a society; with education and knowledge producing positive externalities and increasing returns (World Bank, 1991; Romer, 1986).

Development planning and policy in the 1950s and 1960s thus focused on the “big push” by which an economy could propel itself into self-sustaining industrialization and growth acceleration through rapid physical capital accumulation and import substitution. By the 1970s and 1980s, however, these ideas were losing ground to more market-oriented views that emphasized the role of the price system and outward orientation in part through the “Washington Consensus”¹ (Thirwall, 2006b). A synthesis of some of these principles, together with the insights of endogenous growth theorists and a greater focus on institutions has been translated into development policy based on investment policies designed to encourage externality-generating activities (improvements in education) or introduce increasing returns (improvements in physical infrastructure). Complementary policies include

¹ The term Washington Consensus was initiated by John Williamson of the Institute for International Economics in 1989 to refer to an agenda for reform in Latin America. These reforms included among others, fiscal discipline, redirection of public expenditure toward education, health and infrastructure, tax reform, market-determined interest rates, competitive exchange rates, trade liberalization, openness to foreign competition, privatization of state-owned enterprises, deregulation and property rights protection.

those which facilitate the spread of knowledge and permit free entry and exit of firms along with mobility of people, capital, technology and ideas across borders, including liberalization of domestic and external trade (World Bank, 1991).

EMPIRICAL STUDIES OF GROWTH

Both neoclassical and endogenous growth theories have contributed to empirical methods for identifying sources of growth across countries. Growth accounting exercises for example, estimate an aggregate production function and the relative contributions of labor force growth and capital accumulation to growth. The sum of these contributions, however, generally fails to account for overall growth – what is left over or the residual in the estimated production function – is considered to be total factor productivity or changes in output per unit of all inputs combined. Total factor productivity (TFP) is at the core of sustainable growth and attempts to measure the efficiency with which inputs are used.

For example, suppose that total output in a country is estimated to increase by about 3% per year and its capital stock grows at 3% whereas labor inputs (measured in worker hours) grow at only 1% (World Bank, 1991a). If the aggregate production function of the economy is such that in the capital-labor mix, capital accounts for about one-third of output and labor accounts for two-thirds of output, then inputs are rising at 1.7% per year (two-thirds times 1% plus one-third times 3%). This leaves 1.3% of unexplained growth (3% (the rate of growth of output) less 1.7% (the rate of growth of inputs)).

What factors make up this residual or total factor productivity growth? As such this term captures technological innovations and most importantly, improvements in the quality of labor. If the additions to the labor force are more productive than the existing labor force, more workers will add more to output than they would under the formula above based on labor's share – this additional amount would be included in the residual. Once labor quality

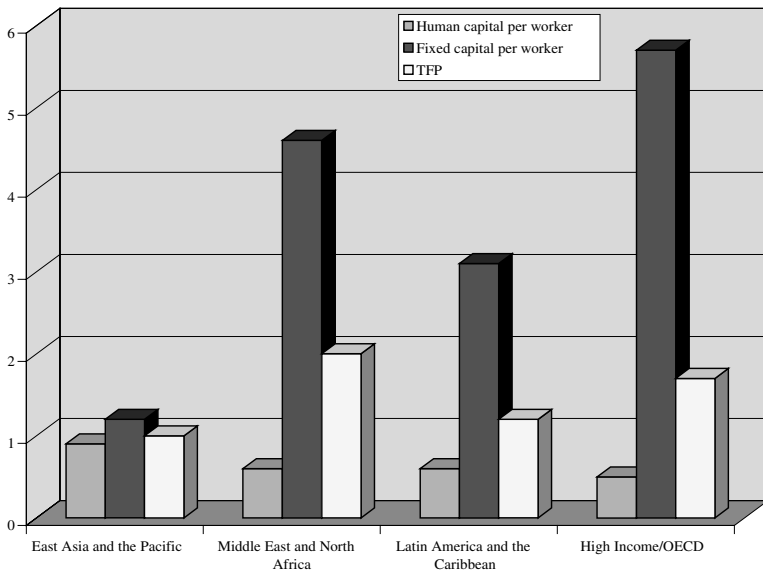
adjustments have been made, the residual is more clearly linked with technical change, which can include innovations as broadly defined as the introduction of personal computers, containerized shipping systems and others. Technical change is also related to reducing real costs – which may fall, in the case of workers being linked with better managers, an assembly line made more productive, or fertilizer introduced on a farm. Productivity may also increase as a result of cost efficiencies in the area of closing down unprofitable industries or factories and/or installing internet access. Understanding total factor productivity is linked to an intricate process of studying product by product, sector by sector, industry by industry the most important sources of innovation and cost reduction (World Bank 1991). This also applies to government services and processes such as streamlining visa procedures and public procurement practices.

Despite their limitations, growth accounting exercises provide some insights into how growth occurs. For the most part, such studies have identified the main drivers of growth in developing countries as being related to accumulation of factor inputs rather than productivity growth, in contrast to the experience of developed countries. For the MENA region in particular, these studies cover varying time periods and tend to generate roughly similar results. The overriding conclusion is that capital accumulation, rather than productivity growth has been the underlying source of per capita income growth. From 1960–1994, for example, capital accumulation is estimated to have contributed nearly 4% of an estimated 5% rate of real output growth, with an estimated -0.03% of TFP growth (Senhadji, 2000). Relative to other developing regions, MENA economies also have high capital shares in growth accounting such that TFP growth is expected to be lower for similar growth rates of capital and skill-augmented labor. From 1974–86 in particular lower growth was linked with declining TFP and lower investment growth; particularly fixed capital.

Growth accounting exercises for the MENA region over a longer time period, namely 1960–2000 suggest approximately similar

findings² (Keller and Nabli, 2007). During the 1960s, for example, average annual GDP growth per laborer was slightly below high income OECD countries at 4.2%, with high rates of capital accumulation and TFP growth (see Fig. 1). From the 1970s to the 1980s, growth remained strong; averaging 2.6% per worker, with approximately 2.9% of this growth accounted for by fixed capital accumulation. However, total factor productivity growth was declining, averaging -1.0% (see Fig. 2). This was particularly the case for energy exporters such as Saudi Arabia and Algeria (see Table 1).

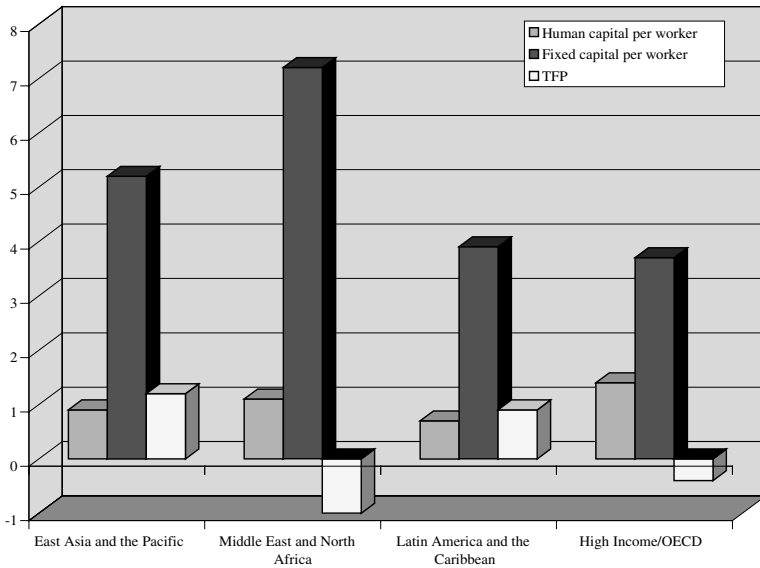
The process of capital accumulation and productivity to a lesser extent, was therefore an important contributor to growth in



Source: Keller and Nabli (2007).

Fig. 1 Growth Accounting by Region, 1960-1970 (average annual growth)

² Coefficient estimates for physical capital and human capital augmented labor were derived from regressions of the average annual rate of GDP per capita growth on the average growth of physical capital per worker and human capital per worker with a least squares trend over the entire period. The estimated elasticity of output of physical capital was approximately 0.4 and 0.6 with respect to labor.



Source: Keller and Nabli (2007).

Fig. 2 Growth Accounting by Region, 1970–1980 (average annual growth)

the 1960s and even more so in the 1970s. During the 1970s, the growth of fixed capital per worker was over 7%. By the 1980s and 1990s, however, output growth had collapsed to less than 1%; total factor productivity growth was even more negative in the 1980s, and zero in the late 1990s (Fig. 3). Since the 1990s, however, there has been some improvement in total factor productivity growth across MENA countries with more significant increases in human capital per worker for some countries (Table 1).

Another set of empirical growth studies builds on the work of both neoclassical and endogenous growth theorists using cross-country growth regressions of per capita income. Typical estimates incorporate initial levels of variables such as the stock of physical and human capital in the form of educational attainment and health as well as economic policy variables such as the ratio of government consumption to GDP, movements in terms of trade and others. One of the most comprehensive studies of 116 countries

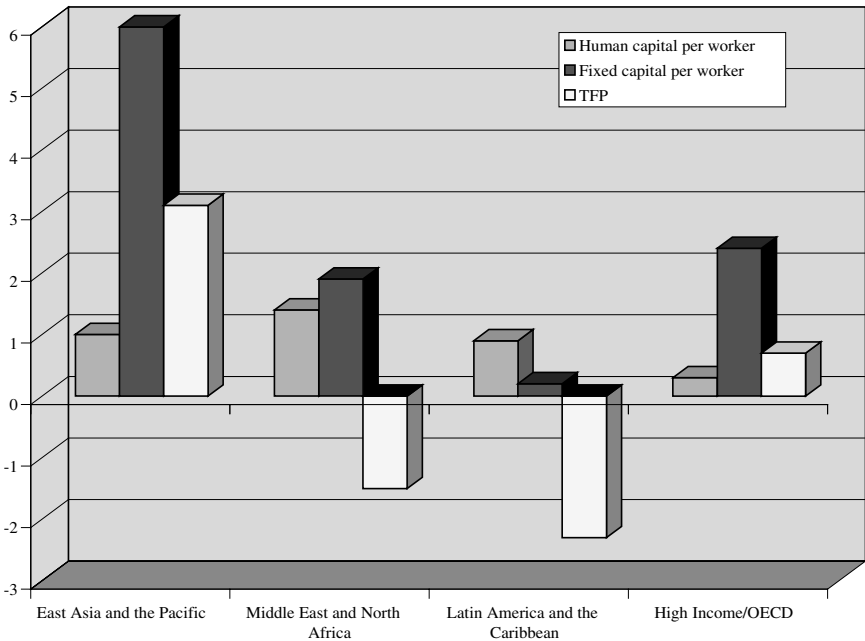
Table 1 Sources of Growth: MENA Countries 1960–1970

Human	Human Capital/Worker	Fixed Capital/Worker	TFP
Egypt	0.3	3.3	1.5
Jordan	0.9	6.2	-3.5
Tunisia	0.9	5.0	1.2
Algeria	0.6	1.4	2.1
Syria	0.8	1.5	2.0
Saudi Arabia	0.3	3.5	4.5
1970–1980			
	Human Capital/Worker	Fixed Capital/Worker	TFP
Egypt	1.0	5.7	1.5
Jordan	1.0	9.0	2.4
Tunisia	1.5	3.3	1.4
Algeria	1.1	5.3	-0.1
Syria	1.5	11.0	1.2
Saudi Arabia	1.4	17.9	-0.8
1990–2000			
	Human Capital/Worker	Fixed Capital/Worker	TFP
Egypt	1.4	-0.1	0.7
Jordan	1.1	-1.5	-0.6
Tunisia	1.2	0.8	0.6
Algeria	1.3	-2.6	-2.0
Syria	0.8	-1.4	0.9
Saudi Arabia	1.2	-2.7	0.8

Source: Keller and Nabli (2007).

Data are average annual growth rates.

over the period 1965–1985 including a few MENA countries suggests that nearly 80% of the difference in growth performance across countries is related to (i) initial levels of per capita income (relative to educational and health attainment); (ii) the investment ratio; (iii) the ratio of government consumption to GDP; (iv) market distortions; (v) political stability/instability (Barro and Lee, 1993).



Source: Keller and Nabli (2007).

Fig. 3 Growth Accounting by Region 1980–1990 (average annual growth)

Subsequent studies of the robustness of these results indicate that they are sensitive to model selection and data sets, but variables which appear to be the most accurate in explaining growth are those which capture the link between investment and growth and the relationships between investment and trade (Levine and Renelt, 1992, Thirwall, 2006c). A summary view of results from significant numbers of studies of cross-country growth regressions across various time periods and specifications has been succinctly summarized as

“The rate at which countries grow is substantially determined by three things: their ability to integrate with the global economy through trade and investment; their capacity to maintain sustainable government finances and sound money; and their ability to put in place an institutional environment in which contracts can be enforced and property rights can be established.” (Summers, 2003)

For the MENA countries, in particular, there have been a limited number of empirical growth studies assessing underlying sources of growth. One of the most comprehensive, including 74 countries, of which ten are in the MENA region and covering the period from approximately 1980 to 2000, offers a number of observations on growth performance in the region which are roughly consistent with general observations described above. Following common specifications for cross-country growth regressions, this study finds that higher real per capita growth rates are associated with low levels of initial income, stronger institutions, more open trade regimes, smaller governments, lower terms of trade volatility, lower real exchange rate overvaluation, higher growth of the working age population relative to total population growth, and higher initial levels of secondary school enrollment (Hakura, 2004).

Comparing the relative growth performance of MENA countries to high-performing East Asian economies yields a number of additional findings relevant for policymakers. First, growth has been more volatile, relative to other developing regions, particularly among oil exporters, and influenced by volatility in terms of trade which is higher than in any other region. Second, there has been stagnant real per capita GDP growth from approximately 1980–2000 for both oil and non-oil exporting countries. Third, nearly 25% of the growth differential between the MENA countries and middle-income countries (East Asia and the Pacific) is due to the initial level of income (Fig. 4). Very high initial levels of per capita GDP and consumption particularly for oil exporters are correlated with low growth rates over the entire period. This is particularly true for oil-exporting GCC countries and is broadly consistent with studies of resource-rich developing countries which suggest that convergence to steady-state levels of growth tends to be from above rather than below (Rodriguez and Sachs, 1999). In addition, MENA countries compare relatively well in terms of the initial stock of human capital measured by secondary school enrollment ratios in 1980.

With regard to countries within the region, there are differences between the GCC countries and other MENA oil and non-oil



GDP per capita (Constant 2000 US\$).

Source: World Bank database; data subject to revision.

Fig. 4 Per Capita Income Comparisons, MENA and East Asia

exporting countries in terms of growth determinants. In the GCC countries, for example, a high level of initial income and high ratios of government consumption to GDP are estimated to account for over 3 percentage points of the observed 5.2% growth differential with East Asia (Hakura, 2004a). For other MENA oil exporting countries, initial income and institutional quality explain the largest growth differential with East Asia. Thus, both the size and quality of government matter for growth. Real exchange rate overvaluation, terms of trade volatility, and trade openness also matter, but to a lesser extent. For the non-oil exporters, institutional quality and high levels of government consumption explain more than half of the growth differential with East Asia. During the 1980s in particular, factors related to population growth and terms of trade volatility appear to have been relatively larger obstacles to per capita income growth than during the rest of the period. Inclusion

of other variables related to oil and conflict suggests that a key channel through which oil resources have affected growth are through high levels of per capita income and consumption and through its effects on government expansion and institutional quality. Conflicts, particularly internal conflicts, are negatively correlated with growth in per capita income.

A new group of studies explores growth accelerations and decelerations around trend growth. This is based on the evidence that volatility around trend growth tends to be much higher in developing countries than in industrialized countries and periods of rapid and slow growth tend to be transitory – very few countries experience high levels of growth success from decade to decade. Studies of 110 countries over a 30-year period from 1957 to 1992, for example, including those in the Middle East and North Africa region suggest that growth accelerations (or an increase in per capita growth of 2 percentage points or more over a period of at least eight years) tend to coincide with increases of export and import ratios as a share of GDP, increases in the investment ratio and large real depreciations of the exchange rate (Hausmann *et al.* 2005). Whether or not a growth acceleration is sustained however, depends to a large extent on implementation of economic reforms related to openness to trade, improving institutional quality, removing distortions in the microeconomy and measures to promote macroeconomic stability. Finally, growth accelerations tend to be highly unpredictable; most growth accelerations are not linked to political change and economic reform. For MENA countries in this sample, there are three interesting features which stand out. First, most of the episodes of growth acceleration occur in the 1970s and the extent of this growth acceleration is higher than in East Asian countries on average. Second, there are very few growth accelerations in the 1980s and 1990s, relative to other developing regions. Finally, Syria stands out as a country which has experienced growth accelerations in all decades under study, suggesting an interesting case for more in-depth analysis (Table 2).

In summary, both neoclassical and endogenous growth theories appear to do a better job of providing a list of “don’ts” with regard

Table 2 Growth Accelerations in MENA Countries

	Year	Growth Before	Growth After	Difference in Growth
Middle East and North Africa				
1950s and 1960s				
Morocco	1958	-1.1	7.7	8.8
Syria	1969	0.3	5.8	5.5
Tunisia	1968	2.1	6.6	4.5
1970s				
Jordan	1973	-3.6	9.1	12.7
Egypt	1976	-1.6	4.7	6.3
Syria	1974	2.6	4.8	2.2
Algeria	1975	2.1	4.2	2.1
1980s and 1990s				
Syria	1989	-2.9	4.4	7.3
East Asia & Pacific				
1950s and 1960s				
Thailand	1957	-2.5	5.3	7.8
Korea	1962	0.6	6.9	6.3
India	1967	-0.8	5.5	6.2
Singapore	1969	4.2	8.2	4.0
Taiwan	1961	3.3	7.1	3.8
1970s				
China	1978	1.7	6.7	5.1
Malaysia	1970	3.0	5.1	2.1
1980s and 1990s				
Malaysia	1988	1.1	5.7	4.6
Thailand	1986	3.5	8.1	4.6
Papua New Guinea	1987	0.3	4.0	3.7
Korea	1984	4.4	8.0	3.7
India	1987	3.4	5.5	2.1
China	1990	4.2	8.0	3.8

Source: Hausmann *et al.* (2005), Appendix

Data are GDP growth rates from Penn World Tables and World Development Indicators.

to poor growth performance than identifying specific strategies for achieving higher growth. In the case of the MENA region, high levels of government consumption and protectionism have not been conducive to strong growth performance. But this does not

necessarily map out a detailed strategy for enhancing future growth prospects. The evidence suggests that a challenge for policymakers is to develop policy mechanisms which stimulate high rates of capital accumulation and efficiency improvements over time while seizing “windfall” opportunities as well as “openings” via trade and investment to accelerate growth. In the MENA region, such an approach is needed to overcome institutional constraints and domestic rivalries of interests while reinforcing increasing returns activities and total factor productivity growth.

In the post-WWII period, the MENA region like other developing countries, experienced high rates of growth on the basis of rapid increases in capital accumulation and through the 1960s, at least, high rates of productivity growth. Much of this was an accelerated growth catch-up facilitated by high rates of investment and imports of capital equipment. As early as the 1970s, however, despite continued high rates of capital accumulation, the productivity of these investments was clearly deteriorating and the external environment was changing. As the previous discussion indicates, weak productivity of investment has been linked with *inter alia*, high levels of government spending, weak institutional quality and initial high per capita income in the case of the GCC economies (Sala-i-Martin and Artadi, 2002; Makdisi *et al.* 2000; Bisat *et al.* 1996). To better understand the origins of such development policy choices the following discussion reviews key features of the region’s early engagement with the global economy in the 1870s to the period preceding WWII.

MENA ECONOMIES: EARLY GLOBALIZERS

In the latter part of the 19th century, the MENA region was actively engaged in the first period of globalization beginning in the 1870s and continuing until WWI (Owen, 1981; Issawi, 1982a). From 1800 to 1914, population increased 300%, domestic output expanded and the value of foreign trade grew rapidly – in Egypt for example, total trade by 1910–13 was as much as 50% of GDP – just slightly larger than that of Britain (Owen and Pamuk, 1998). At the same

time, growing trade with Europe was linked with shifts in production and the ascendancy of certain groups and geographic areas.

The great increase in trade with Europe involved a fundamental restructuring of agricultural production toward cash crops with attendant growth in port cities and merchant classes. Intensification of local economic activity was linked with export specialization, deeper monetary relations and rapid infrastructure development. As European trade accelerated, so did growth in sectors linked with the global economic system. Higher capital inflows and government borrowing also contributed to loss of fiscal control and government bankruptcy by the 1870s. Thus, growth was vulnerable to fluctuations in international commodity prices, European business cycles and the availability of international bank credit. Geographically, integration was also a rather uneven process – with rapid growth and shifts in political power toward coastal cities relative to cities in the interior and increasingly isolated regions such as the mountainous areas of northeastern Iraq. It was in the port cities of Beirut, Alexandria, Jaffa and others that trade was organized, links with village retailers and peasant cultivators were forged and credit provided with the result that they largely became centers of European commercial practice and patterns of consumption (Owen, 1981a).

Trade with Europe also contributed to rapid economic and social mobility for local merchant firms engaged in the purchase of local crops for cash and sales of imported manufactured goods on credit. Set-up costs for these merchant firms were high and those with regular credit links to European banking houses were able to borrow money at much lower rates than those in the domestic market. Merchant money-lenders in Syria for example, were the hinge between the world market and large-scale commerce and banking on the one hand and small-scale peasant and artisan production on the other. In Egypt, this group also struck up a profitable alliance with tax collectors who found it useful to have someone ready to lend the peasants what they needed to meet their obligations. A small class of landowners and land controllers gained much of the agricultural surplus which accrued as a result of growing cultivation

of cotton, citrus and other primary commodity exports. Apparently, little of this surplus was reinvested in capital works or agricultural improvement, with the majority consumed, largely in urban areas in pursuit of a European life style or used as a basis for urban political activity. In Egypt, for example, large landowners were important allies for European powers and used this position to assert increasing influence over local politics (Owen, 1981b).

The expansion of trade and capital flows also contributed to increasing interference by European governments in local political arenas; many of these efforts were geared toward securing the interests of European merchants. This intervention was gradually transformed into pressure to undertake administrative reforms, particularly where it facilitated contract enforcement and recourse to non-payment of debts. The resulting process was a mix of local and international influences through which existing informal councils consisting of local merchants were gradually replaced by mixed tribunals and growing European representation. In Syrian towns for example, councils of local merchants were reconstituted as European commercial tribunals in Beirut and Damascus in 1850 and in Aleppo in 1853 (Owen, 1981c).

Other political overtures from European powers aimed at discouraging the Ottoman practice of encouraging monopoly purchase, sale and export of a variety of agricultural products from the region. This, combined with a large number of internal duties on the movements of goods within the region, were widely perceived as reducing the volume of exports and imports. European ships bringing manufactured goods to the region purportedly experienced regular financial losses as a result of their inability to find return cargo. Subsequent granting of treaties and commercial conventions limiting the use of monopolies in exchange for European military and political support helped to address these concerns. Local merchants who had managed to acquire European protection or nationality were also able to share in this economic advantage.

While production for agricultural exports expanded rapidly, the effects of growing trade with Europe on the local handicraft

industries were more complex. Historical accounts describe the combined influences of cheaper textile imports and minimal tariffs as contributing to the purported demise of a large number of spinners, weavers, and dyers by the latter half of the 19th century. The quantity of textile imports was in fact, sufficient to clothe every inhabitant of the region, man, woman, and child (Owen, 1981d). Imported yarn was also making great strides in the local market, with apparently devastating effects for village craftsmen engaged in simple cotton goods production, weavers of local thread and those who spun silk by hand. However, in other areas such as Damascus and Aleppo, textile production appears to have recovered quickly – in 1855 there was an estimated £ 700,000 worth of textiles being produced in Aleppo of multiple varieties. The strategy for survival seemed to be linked in part with specialization in fabrics and styles which could not be copied by European manufacturers – this was the case for Turkish muslins and cloth made in Syria from a mixture of gold and silver threads which were preferred by the local population. Other producers began to reorganize production, taking greater advantage of economies of scale by centralizing production, as in the case of silk manufactures from Mount Lebanon; others began to import foreign-built looms. Producers also profited from the import of European thread which was cheaper and of better quality than local thread. A large number of firms also began to specialize in dyeing of imported white cloth.

Thus by the latter half of the 19th century, some important trends had emerged. Growing trade with Europe occurred in conjunction with an expanding domestic market and an increase in population and specialization. It clearly boosted economic activity in key sectors and in selected geographic areas; in the case of the latter, largely in areas with existing access to commodity and credit markets. Rising economic trade with Europe was also linked with growing political intervention by foreign powers, in the form of exerting pressure for legal and property rights protection and a lessening of tariff protection. Select domestic interests also tended to benefit from such measures. Less skilled craftspeople, in traditional hand-weaving activities along with peasants, small-scale

farmers as well as merchants in the interior, on the other hand, all tended to be more adversely affected by shifting fortunes linked with globalization. Some of these groups became core elements of subsequent Independence movements and modern state development.

EARLY REFORM EFFORTS

The 19th century was also a period characterized by administrative reforms designed in large measure to improve public finances. Relative to the nation states of Western Europe at the time, Ottoman public revenues were dismally low, estimated somewhere between £2,250,00 and £3,750,000 in the early 1800s relative to £16,800,000 for the British empire in 1787–1790 (Owen, 1981e). Agriculture, primarily the tax on production, land and others was one of the largest sources of revenues but problematic in terms of ensuring a steady flow of revenues into the public treasury. An estimated £20,000,000 was collected from peasants by tax farmers, little of which was passed onto the Treasury.

Efforts to maximize the amounts raised from the land tax reveal the difficulties of implementing fiscal reform measures. In 1793, for example, a New Treasury was created by Selim III alongside the Old Treasury and assigned control over tax farms; it was expected that the New Treasury would gradually takeover tax farms from the Old Treasury when the existing contract expired. The New Treasury in turn was expected to hand over to the Old Treasury, a sum equal to the price previously paid by private individuals for the purchase of the farms which it took over. In reality, however, these provisions were increasingly ignored and the chief of the New Treasury eventually seized over 400 fiefs from tax farmers using his own agents to collect revenues and subsequently accumulating them in the New Treasury (Owen, 1981e).

Increasing the Treasury share of tax farming receipts required either forcing tax farmers to give up more of their profits or abolishing tax farms to institute a system of direct collection by

government agents. A census was introduced in the 1830s as a prelude toward more efficient methods of tax collection. But these efforts were later superseded by the decision to auction, rather than abolish the remaining tax farming rights, to a new group of tax farmers while at the same time compensating their former administrators with a pension (Owen, 1981f). Further efforts to abolish tax farming fell in the gap between significant opposition from groups which stood to lose their former privileges and the failure to create an alternative system.

Attempts to increase the agricultural surplus through direct public intervention faced similar hurdles. A high-level commission was formed to recommend ways and means of increasing production although few of these measures were ever implemented. An Agricultural School founded in 1847 to disseminate improved production techniques was too small to have much of an impact. Efforts to regularize land tenure were complicated by lack of administrative resources to carry out registration of all title deeds and contradictions in reform objectives. On the one hand, reformers sought to provide cultivators with a security of tenure without which they would have little incentive to accumulate agricultural wealth. On the other hand, this was resisted by producers who were wary of a re-assertion of government control over large areas of land which, though officially belonging to the state, had passed informally into private hands. This dilemma complicated efforts to regulate a system of property rights throughout the 19th century (Owen, 1981g).

Mohamed Ali's reforms in 19th century Egypt faced similar challenges. Growing export demand for Egypt's agricultural products was met with increasing levels of state control. By 1816 public monopolies controlled Egypt's cash crops; each was purchased at a price fixed below the market level, private transactions were forbidden and the government's monopoly of supply allowed it to dictate the terms on which the harvest was sold to merchants. Control of agricultural land allowed the government to combine regulation, price fixing, and taxation along with participation in agricultural activity itself (Owen, 1981h). However, the collapse of

cotton prices in 1836–1837 contributed to the reversal of much of this policy; control over large tracts of land was extended to senior officers, Mohamed Ali's family members and others in exchange for guaranteed tax liabilities in the future. By the 1850s nearly all the cultivated land in lower Egypt had been distributed as such (Owen, 1981i). Such measures reduced the costs of rural administration while preserving a system of public monopolies over the bulk of the rural surplus. However, there was an inherent contradiction of objectives as new proprietors were expected to continue government policy toward agriculture including monopoly purchases while at the same time they had an incentive to market their crops directly to merchants in excess of the fixed government price. The privileged position of some proprietors who had received more favourable land and were allowed to take workers and animals from less powerful neighbors also led to direct confrontation between Mohamed Ali and village shaykhs while weakening the state's ability to withstand foreign pressure to abolish agriculture monopolies.

Thus, the experience of administrative reforms during the 19th century offers some interesting lessons to consider. First, a primary objective of reforms was to increase government revenues. Throughout this process, competing interests tended to coexist in growing and contracting economic spaces. Second, efforts to improve property rights protection tended to be met with mixed reactions from private actors – on the one hand institutions such as property rights offered greater security of land tenure, on the other, they generated a surplus more easily identified and appropriated by public entities. Third, for the most part, however, central governments largely played a secondary role in the process of transformation during this period. Growing fiscal vulnerability and interference by European powers and the rising indebtedness of governments weakened the hand of central authority. This uneasy balance culminated in the beginnings of “nationalist” sentiments on the eve of WWI (Issawi, 1982).

THE INTERWAR PERIOD

After WWI much of the early expansion in trade and commerce gave way to political and economic nationalism as the gold standard was abandoned and tariffs were imposed on international flows of goods and labor. The end of the Ottoman Empire was followed by the Mandate period characterized by British and French control over populations in Syria and Lebanon, Jordan and Iraq alongside emerging independent states in Turkey, Egypt, and Saudi Arabia. Rapid and large declines in international commodity prices during the Great Depression led to growing protectionism; the demand for primary commodity exports and terms of trade for developing countries deteriorated. Most countries in the MENA region had remained heavy importers of European manufactured and consumption goods which further weakened monetary balances, coupled with diminishing access to foreign credit and an increase in debt burdens. This period has been described by historians as a process of “de-globalization” and very little growth (Owen and Pamuk, 1998a). Between 1913 and the 1940s, Egypt in particular experienced virtually zero growth and it is widely hypothesized that Egypt’s population experienced hardly any improvement in standards of living whatsoever.

There are a number of features of colonial economic practice that were prevalent throughout the MENA region (Owen and Pamuk, 1998b). These included (i) pressures for fiscal conservatism and balanced budgets – colonies had to pay for themselves; (ii) currencies tied to London to facilitate trade and exchange; managed by currency boards, leading at times to overvalued currencies and/or sudden losses of value from devaluation; (iii) monopolization of trade in goods and services as Mandate areas were incorporated into larger sterling and franc trade zones allowing in many cases for privileged access for exports; (iv) concerns for political management and control which superseded notions of economic efficiency and optimality and encouraged alliances with large landowners, shaykhs and others in part through financial concessions and in some cases awards of state lands. Policies which threatened the

social peace were largely not pursued. Policies of “divide and rule” also prevailed and were in many cases economically wasteful.

During WWII, the Middle East region was placed under control of the Anglo-American Middle East Supply Center established in Cairo in 1941. The aim was to facilitate the needs of British, French and later American armies and to limit non-military imports into the region to conserve shipping space for military supplies. This was achieved through a system of licensing and controls together with increases in domestic production. Such measures were quite successful in freeing up economic space for military goods – imports of civilian goods were reduced to a trickle. In addition to stimulating high rates of output growth, military spending contributed to generally full employment in many countries in the region, albeit at the cost of high inflation. General price indices increased by nearly 600% in Iraq and 830% in Damascus between 1938 and 1944 (Owen and Pamuk, 1998c). Governments tried to respond with a combination of price controls, food rationing, and subsidies for basic necessities.

THE MENA GROWTH “TAKE-OFF”

In the aftermath of WWII, many newly-independent states inherited mixed economies and significant trade protection. Development policy and planning subsequently aimed at creating the foundations of strong nation-states, integrating remote areas through construction of physical infrastructure and promulgating the extension of government control over increasing areas of market activity. Specific policies implemented in support of these goals included rapid growth of the public sector in some cases through nationalization of private sector assets and/or high rates of public activity, introduction of import substitution industrialization and agricultural land reform. This was complementary with commitments to increase access to health, education and government employment, along with the introduction of consumer subsidies on basic food items and energy products.

This period has been characterized by an emphasis on national as opposed to foreign interests, industrial, financial, commercial and managerial interests over landed interests and state interests over private interests (Issawi, 1982). However the emphasis on public interventionism relative to private entrepreneurship and the degree of trade protectionism tended to vary across countries. In Egypt, Algeria, Syria, Iraq, and Tunisia, for example, there was a greater emphasis on enhancing the public sector at the expense of private sector activity; in countries such as Jordan and the GCC states, private activity was encouraged alongside growing government interests. The first group of countries also tended to adopt more radical foreign policy and protectionist measures vis a vis the global economy and foreign investors.

Development policy during this period is generally typified by the experience of Egypt and Arab Socialism, which played out to varying degrees in many other states in the region during the 1950s and 1960s, with influences which are still relevant today. Gamal Abdel Nasser's growth strategy influenced development across the region, most notably in Iraq, Syria, Algeria, Libya, and Northern Yemen while indirectly influencing nearly every other country in the region by providing a kind of benchmark of public interventionism. Issues of equity played an important role in development strategies but not in the sense of equal distribution of income and wealth but rather the real or perceived privileges enjoyed by certain segments of the population (Hansen 1991).

Following his rise to power in 1952, Nasser nationalized the Suez Canal Company in 1956, followed by large foreign private concerns including chemical, textile and cement factories, banks and insurance companies. In 1962, Arab Socialism became the official ideology of the state through the Charter of 1962. Unlike Marxist-Leninism, however, it did not reject religion, neither did it promote a dictatorship of the proletariat, nor complete public ownership of the means of production nor the sacrifice of current consumption in favor of future investments. Thus, socialism in the MENA region came to be applied and adopted at various points in time in ways that were compatible with a wide range of, at times,

contradictory objectives including commitments to equity and distributive issues, public ownership of some means of production, the acceptance of private property and the drive for development. Similar to other newly independent states in the region, this Charter also stipulated the right of each citizen to medical care, the right to receive education appropriate for his/her ability or talent, the right to an adequate job, together with a legally-sanctioned minimum wage and the right to old age benefits (Amin, 1995; Hansen, 1991; Gardiner, 1969; Richards and Waterbury, 1998a).

Much has been written about the importance of the *dufaa* network under both Nasser and Sadat during the 1960s and 1970s in Egypt. (Hansen, 1991a; Waterbury, 1983). The *dufaa* was a horizontal network organized around the graduating classes of secondary schools and higher education institutions including military schools. More generally the issue was the influence of select groups in policymaking; groups into which entry was not free, neither could it be generally earned through market channels (Hansen, 1991b). Most of the Free Officers from the 1952 Coup were members of the first *dufaa* of the military academy after the British-Egyptian agreement of 1936 and/or the 1948 *dufaa* of the staff college. Many of these groups were also intensely competitive and at times hostile towards each other; a dynamic which was at times exploited by Nasser himself. Economic policies of the time frequently reflected among others, the outcome of such power games at or near the top of the pyramid. Anwar Sadat also systematically installed surviving members of his officer school *dufaa* in top command positions in the armed forces. However, the intense factionalism and in-fighting between these groups characteristic of the Nasser regime changed somewhat. Decentralization of the public sector and upgrading of the private sector under *Infitali* created new opportunities for profits and capital gains across existing and new groups of interests.

Three successive land reform measures beginning in 1952 were aimed at reducing the size of large landholdings, redistributing sequestered land and extending a system of cooperatives in rural areas (El Ghomeny, 1992). As a result of the first Land Reform Law

in 1952, large landowners were allowed to keep up to 311 acres of property for themselves; only 7.5% of the total cultivated area was taken into state ownership. This amount was subsequently redistributed in small lots at a rate which never exceeded 67,000 acres per year (Owen and Pamuk, 1998d). By the third and final phase of land reform in 1967, total redistributed area represented about 12% of total cultivated land area and excluded landless daily-wage workers. A significant share of the increase in agricultural investment came from efforts to reclaim marginal areas of cultivation (Richards and Waterbury, 1998b).

Agricultural policy, similar to previous eras, was aimed at maximizing transfer of the agricultural surplus to finance a growing public administration, as well as increasingly promote infant industries and to support a new rural middle class created by land reform. Through use of a dual price system, the government purchased crops such as seed cotton, wheat, rice, at low fixed prices and with varying degrees of quotas on production (Hansen, 1991c). Output produced in excess of quotas could frequently be sold at market prices through retail outlets. However, most wholesale and retail trade was subjected to direct price controls, particularly with regard to prices for wheat, sugar, rice, and cooking oil – the staple of Egypt's large and growing system of food subsidies. Price distortions in output markets were linked with additional price distortions in factor markets in the form of fertilizer, pesticide and credit price intervention. For many crops, effective rates of protection were inversely related to measures of social profitability. Irrigation water and drainage services were supplied free of charge.

Such measures were coupled with large-scale infrastructure projects such as construction of the Aswan Dam and related power plants which absorbed nearly 1.5% of GDP over an 11 year period of construction. While annual investment in agriculture (irrigation) increased at some 2% for much of this early period, output grew at less than 2% from 1965 to 1973 and 2.2% until the early 1980s. This effectively limited objectives to enhance food self-sufficiency (Hansen, 1991d; Hansen and Nashashibi, 1975; Alderman and Von Braun, 1984).

GROWING INDUSTRIALIZATION

Similar to the agricultural sector, growth in industry was achieved largely through high rates of expanding inputs as opposed to efficiency improvements. The first Five Year Plan was launched in 1957, followed by another wave of nationalizations including 42 of the largest commercial and industrial companies. By 1964, the Egyptian government owned most modern sector firms – and soon thereafter public sector firms began generating about 90% of value added by plants employing more than 10 workers (Owen and Pamuk, 1998e). Industrial development was focused on textiles, sugar, and pharmaceutical industries and heavy industry to a limited extent. Nationalized companies were consolidated into 160 joint stock companies and placed under the control of 11 organizations attached to various ministries (Hansen, 1991e). Price and wage controls and output targets were developed in each plant alongside profit and productivity criteria. This was compounded by strict orders to increase employment – contributing to a situation of competing incentives and declining profitability. In the 1960s and 1970s, two-thirds of the labor force was paid employees—about half of them employed by the public sector. The Egyptian government had instituted the right of graduates from secondary and higher schools to public sector employment after a 2–3 year waiting period. By 1973, a similar guarantee was extended to conscripts honorably discharged from the armed forces.

Despite the emphasis on industrialization in economic planning and policy, concerns for full employment contributed to a growing emphasis on public employment and migration possibilities. Public infrastructure and investment in non-traded sectors such as electricity and public utilities, transport and communications predominated. A number of large landowners who had shifted their wealth from rural to urban real estate were also largely unaffected by nationalization and sequestration. However, the combined effects of urban rent control, and tenant protections against eviction and others effectively limited owner property rights (Hansen, 1991f). Industry benefited from high rates of tariff

and effective rates of protection on final products and direct and indirect subsidies on credit and capital equipment imports along with an overvalued exchange rate. The result tended to be high capital intensity, frequently with obsolete technology and a preference for large-scale plants to create economies of scale (Handoussa and Potter, 1991). This was most notable in industries such as steel, motor cars, paper and pharmaceutical products with the result that a very small percentage of this output was exported and if it was, largely to countries in the Communist Bloc. Cotton textile industries operated on too large a scale and new industries were too small. All in all, growing public ownership was correlated with a decline in productivity by nearly 2% per year between the early 1960s to the early 1970s (Hansen, 1991g) (see Table 3).

Well before the disruptions caused by the 1967 War, Nasser's development strategy was under strain. In an attempt to manage growing pressures for economic liberalization on the one hand and intensification of government interaction on the other, Nasser allowed private entrepreneurs to act as sub contractors for state-owned enterprises and at the same time, passed the final act of Land Reform in 1969 (Owen and Pamuk, 1998f). By 1964, capacity

Table 3 Shares of Growth by Production Sector, Egypt (%)

	1965–1970	1970–1974	1974–1982
Agriculture	14.2	12.3	8.2
Industry & Mining (includes petroleum)	32.8	9.0	17.4
Construction	4.4	–10.1	5.5
Transport & Communications	–15.2	10.4	10.0
Suez Canal	–	–	7.5
Trade, finance, insurance	9.6	21.5	22.8
Housing	3.5	2.0	3.5
Other	42.4	47.9	13.5
Traded	47.0	21.2	44.7
Non-traded	53.0	78.8	55.3

Source: B. Hansen (1991). *The Political Economy of Poverty, Equity and Growth, Egypt and Turkey. A World Bank Comparative Study*, p. 8–9. Oxford: Oxford University Press.

utilization had also diminished due to lack of spare parts and raw materials. Production structures were inefficient; estimates of incremental capital-output ratios for manufacturing, mining, electricity, and others were nearly four for Egypt in the 1960s (1951–62), more than doubling to nine in the mid-1970s (1976–81) with the implied decline in investment efficiency. The 1967 War, combined with closure of the Suez Canal, the loss of the Sinai oil fields to Israel together with reduced revenues from tourism all served to exacerbate Egypt's growing foreign exchange crisis. The subsequent squeeze on imports and cancellation of new investment projects weakened growth prospects.

The imminent foreign exchange crisis was abated by the 1973 War and higher oil prices, along with higher levels of aid and remittances. After 1976, Egypt also expanded oil exports, which together with significant increases in investment and imports, accelerated growth into the 1980s. Egypt's 1974 "Opening" or *Infitah* policy fortuitously coincided with higher liquidity in the region and a significant portion of higher Suez Canal and oil revenues which financed increases in consumer subsidies and interest payments on public debt. (Hansen, 1991h) Under Anwar Sadat, Egypt began to implement policies of enhanced trade liberalization and greater involvement by the private sector. This was, to some extent, a partial liberalization of the economy, with public enterprises and agricultural controls largely remaining in place while giving greater room to private and foreign investment in select industries and sectors. Decentralization of public enterprises through abolition of the General Organizations in 1976 did little to lessen government control over management decisions. (Hansen, 1991i) Under the Nasser regime, the nationalizations of 1961 had placed the entire foreign trade regime under government hands with virtually no private international transactions conducted legally. With *Infitah*, this changed significantly, as private firms were given a greater role to play in exports and imports; there was legalization of private capital movements and introduction of a more liberal foreign exchange regime. Import licenses were gradually eliminated for specific lists of commodities largely to protect

public enterprises and influential private industries; importers were still required to pay relatively high import duties. By the early 1980s, private investment increased briefly to more than 25% of total investment from very low levels, about half of which was foreign. Foreign-financed enterprises operating under Law 43 enjoyed special tax and tariff privileges not available to public and other private firms. However, most of this investment was concentrated in the mining sector as well as generally protected sectors such as trade and finance. Other private investments, encouraged by Law 43, amounted to little more than 2.5% of total investment at the peak in 1982–1983 – leaving the government with three quarters of investment in its hands to control the growth process (Hansen, 1991j). Export capacity in the tradable sector remained weak overall and highly concentrated in oil production while some 10–15% of the labor force found employment in Arab OPEC Countries.

During the 1970s, social welfare improved dramatically, particularly in the form of nutritional indicators which increased for the first time since the 1930s while per capita income increased by nearly 4% per year (Hansen, 1991k). Under Anwar Sadat, Egypt's system of subsidies was vastly expanded from sales of imported wheat at subsidized prices to the provision of cheap goods and gasoline at well below cost. By 1980/1 the size of direct subsidies was 10% of GDP and 25% of current government spending (Owen and Pamuk, 1998g). Food subsidies had a significant impact on increasing basic consumption – by 1985, caloric intake was almost in line with industrialized economies. More generally, direct price subsidies became the main device for lowering the Gini coefficient from 0.40 to 0.37 in 1974–5, albeit at high fiscal cost. Social security benefits and direct subsidies alone accounted for about 15% of GDP in 1975–1984 (Hansen, 1991i). Life expectancy had increased by more than 10 years for men and women and infant mortality rates declined by nearly half. Free public healthcare became more prevalent, although the number of persons served per physician was low and declining since the 1960s. A significant portion of the improvement in living standards was also driven by higher real wages-particularly in

agriculture. Real wages in both manufacturing and agriculture increased steadily by 3.5% annually in agriculture and 2.4% in manufacturing until 1984.

The right to education was enshrined in the Egyptian Constitution in 1923 and during the 1950s, free elementary education for children aged six to eleven-years old was made compulsory while secondary education was largely voluntary. After 1962, education fees were abolished at all levels and admittance was made basically free. Admittance to most universities was considered a right on the basis of a diploma from the preceding level. During the 1970s however, only 63% of pupils registered for the first grade made it to the sixth grade, resulting in high levels of drop-outs and less than half of those who registered for the first grade passed the final elementary school examination. Shortages of schools, classrooms, teaching materials, and qualified teachers prevailed in spite of education expenditures above at nearly of GDP from 1950–83. (Hansen, 1991m)

Egypt's development strategy in the 1960s and 1970s which emphasized national self-sufficiency through import-substitution industrialization and agricultural reform contributed to rapid growth as well as changes in economic structure in the form of a large public sector, protected industry and non-traded activities, all of which proved to be excessively vulnerable to external developments and foreign exchange availability. Successive nationalizations of private assets, combined with high levels of government interference helped to dampen private savings and investment with the exception of high rent-earning sectors. The gap between private savings and investment was addressed by inflationary financing. Public commitments to subsidized services as well as guarantees for government employment created vast improvements in social welfare but also built-in pressures on fiscal balances. In the mean time, total factor productivity growth declined. It was a fragile equilibrium characterized by growing public interventionism, external rents and social promises – a door towards the politicization of economic activity had been opened which would prove difficult to close.

This model was replicated to greater and lesser degrees by many other states in the region, including Iraq and Syria. Following WWII, Iraq remained under the control of a monarchy with development policy implemented by an eight member Development Board created in 1950. This period was also characterized by abrupt shifts within and between social groups and classes. (Batatu 1978) The Board, which absorbed 70% of oil revenues, focused development policy almost exclusively on large scale investments in public works – while facing growing criticism for neglecting expenditures for rural and urban poor populations. (Owen and Pamuk, 1998; Haseeb, 1968) When the monarchy was overthrown in 1958, the Board was abolished and efforts at land reform and industrialization were re-energized during four successive political regimes. The first Land Reform Law in 1958 under Brigadier Qasim included limits on ownership for irrigated and rain-fed land along with the requirement that beneficiaries join a vast network of cooperatives, similar to the Egyptian model. Weak administrative control and lack of agriculture expertise together with fierce resistance and drought limited progress on land redistribution. By 1963 and the rise of a new B'athist regime led by Abd al-Salam Arif there was a definitive shift toward growing public interventionism as the government nationalized all banks, along with 30 large industrial enterprises and commercial firms. Government shares in manufacturing rose to 62% of output, 46% of employment and 55% of wages (Richards and Waterbury, 1998c).

Resource-based industries were developed along with large investments in new state factories producing petrochemicals, plastics and fertilizers. In 1964, the Iraqi National Oil Company was formed and the Iraq Petroleum Company's Iraqi assets were nationalized in the early 1970s, contributing to a dramatic rise in government revenues. By the late 1970s, the state was generating 75% of GDP with the help of 600,000 government employees (about half of the organized work force); of which 16% were employed by large public industrial firms, 23% in the ministry of interior and 200,000 in the armed forces. Construction activities

were booming and private Iraqi construction firms benefited increasingly from government procurement, access to subsidized credit, raw materials and duty-free machinery imports. Oil revenues are estimated to have increased from US\$6 billion in 1974 to a peak of US\$26 billion in 1980. High rates of growth during this period, estimated at about 5% annually (1964–72), contributed to an increase in per capita income from US\$84 in 1950 to US\$2,312 in 1979. In addition, there is estimated to have been a three-fold increase in the number of physicians per 1000 population between 1960 and 1980 and nearly 100% attendance in primary schools and 60% enrollment in secondary schools (Owen and Pamuk, 1998i).

In contrast, development policy in Jordan and the GCC states was aimed at maintaining a delicate balance between private interests, the rapid growth of the public sector and growing access to external resources. In the post WWII period, Jordan's development strategy incorporated measures to build up industry and agriculture with the help of regional and external partners. Development of a small manufacturing sector was encouraged through joint ventures with private investors in fertilizers, cement, petroleum refining and others, while retaining public control over phosphate exports. Through much of the 1970s, growth accelerated in tandem with very high levels of imports and rates of borrowing which topped 40% of GDP in 1983. Shares of government employment were also high, averaging 50% of the labor force (Owen and Pamuk, 1998j).

Agricultural development, primarily in the private sector was expanded through large-scale investments in irrigation through the East Ghor Canal and the growth of citrus and other agricultural exports from the Jordan Valley. Loss of the West Bank after the 1967 War created a severe economic crisis, given that the West Bank contributed an estimated 30% of GDP and was an important source of foreign exchange earnings and tourism. This was offset to some extent by substantial increases in development assistance, notably Arab aid, estimated at US\$150 million in 1967 which had effectively doubled since 1959. Between 1979 and 1982, annual average aid increased to US\$1.12 billion while remittances grew

from US\$454.7 million in 1976 to US\$1.083 billion by 1982 (Owen and Pamuk, 1998k; Khader and Badran, 1987). Aid, in addition to high levels of earnings from tourism and remittances as well as phosphate exports, helped to finance the rapid expansion of investment and government expenditure primarily in education, finance and public services along with high rates of foreign borrowing. The government also implemented measures to promote foreign investment through the 1972 Law for Encouraging Foreign Investment. Agriculture and industry however, did little to stimulate GDP growth as agricultural production declined following repeated droughts and high rates of rural-urban migration. By the late 1970s, manufacturing contributed about 15% of GDP and employed 6% of the total labor force.

Saudi Arabia and the GCC states quickly became among the most rapidly growing economies in the region following the first oil price shock in 1973. (Ibrahim 1983) In Saudi Arabia, the largest of the GCC states in terms of population and land area, real output expanded threefold from 1975–85, with annual rates above 8% particularly after the mid 1970s. The 1974–78 oil wind-fall was equivalent to over 200% of non-oil GDP, creating significant challenges for policymakers (Auty, 1988). Relative to Jordan, most GCC economies had much higher rates of savings through the mid 1970s. This growth acceleration was even more remarkable given that economic activity before the discovery of oil was heavily concentrated in some countries in nomadic pastoralism and trade. Among the GCC states in general, levels of development were among the lowest in the region. In 1949, for example, it is estimated that only 650 of Qatar's 30,000 inhabitants could read and write; in Kuwait, the first census of 1957 revealed an indigenous workforce which contained just two doctors and eight accountants. In the early 1970s, Oman had only 19 miles of paved roads in the entire country (Owen and Pamuk, 1998l).

A primary emphasis of early development plans was thus to distribute growing oil revenues to the indigenous population. Most GCC states introduced free or government subsidized education, health, water, electricity, telephone, and other services.

By the early 1960s in Kuwait, for example, social spending in particular, was on a per capita basis higher than Great Britain. A growing government administration was also linked with implicit guarantees of government employment and public land purchases. In Kuwait, for example, a Land Acquisition Policy initiative was introduced in the early 1950s through which the Government of Kuwait purchased established homes in the Old City, providing funds for residents to move to newer quarters outside the city. Other elite groups received equally large sums for land which was purchased for the construction of roads and urban services. Some 8% of total oil revenues or 11% of government expenditure was distributed in this way from the 1950s to the late 1970s (Owen and Pamuk, 1998m).

In many of the GCC countries, efforts at industrialization followed initial strategies focused on expanding economic and social infrastructure and overseas asset accumulation. In Saudi Arabia, public investment increased from 25% of non-oil GDP in the mid 1970s to two thirds of non-oil GDP well into the 1980s. (Auty, 1988a) While inflation rose above 30% in 1975–6 the combination of tight monetary control, and the elimination of infrastructure bottlenecks helped to bring inflation below 3% in the early 1980s. Liberal policies toward immigrant labor, foreign construction firms and imports also helped to contain inflationary pressures. Thus, government and external sectors played critical roles in influencing both the level and structure of economic activity. (Ramady, 2005)

Industrialization efforts in the GCC went furthest in Saudi Arabia, where gradually increasing oil revenues facilitated the growth of domestic industry and manufacturing based on oil and natural gas supplies. As oil revenues jumped from approximately US\$10 million in the mid 1940s to over US\$104 billion in 1980 over one generation, government spending jumped from US\$24 million in 1960 to US\$570 million in the early 1970s (Owen and Pamuk, 1998n). Large-scale investments in infrastructure, transport and public buildings also accelerated the growth of government

services and provided lucrative opportunities to private traders, financiers and construction companies. Establishment of the Saudi Fertilizer Company in 1964 boosted the launch of an oil-based industrial strategy in conjunction with investment targets for construction of roads, electricity, communications, as well as education services. The second five year plan incorporated development of two industrial cities at Jubail and Yanbu. In 1976, the Saudi Basic Industries Corporation (SABIC) was established with the aim of encouraging further development of oil-based industries and making greater use of natural gas associated with oil production through the development of iron and chemical industries. (Al-Twajiri, 1993) Private industry was also encouraged through policy measures including provision of expertise and long term credit through the Saudi Industrial Development Fund (SIDF). By the late 1970s, 330 new enterprises had been created and Saudi Arabia was moving toward self-sufficiency in building materials. Local farmers were encouraged to produce wheat and other crops through high levels of subsidies together with access to groundwater resources.

In the other GCC states, growth strategies were aimed at creating economies based on oil, natural gas and services including banking and finance, combined with regional development assistance and global financial investments due to more limited domestic absorption capacity (El Mallakh, 1970, 1979, 1981). Subsidized credit and protection from foreign competition through the granting of sole agency and monopoly rights protection and public procurement promoted private entrepreneurship alongside a growing government sector while social welfare benefitted from rapid increases in social services. In Qatar, for example, oil revenues increased from US\$1.8 billion in 1974 to US\$5.4 billion in 1980 with nearly one third spent on social welfare in addition to financial asset accumulation. (Owen and Pamuk, 1998o) Subsequent expenditure on housing, infrastructure and oil-related industry contributed to high inflation by the late 1970s and growing pressures for fiscal reform which matriculated throughout the region as a whole by the 1980s.

CONCLUSION

Achieving high productivity growth through capital accumulation and raising the efficiency of factors of production is important for achieving sustainable gains in welfare but how to achieve them tends to vary across countries and across time. For the MENA region, policies of fiscal expansion, import protection, agricultural land reform and the expansion of consumer subsidies and public employment typified development strategies to varying degrees in the post-WWII period. Such policies represented in some measure, a response to the uncertainties of early globalization together with low levels of human development and the effects of WWII on the region's economies. This was not unlike other developing regions at the time and represented an underlying trend towards nationalism, public interventionism and protectionism throughout the 1950s and 1960s.

In the MENA case, this shift also represented a new balance of interests and political power weighted towards an urban, industrial core and interior areas over cosmopolitan, coastal and trading areas. Nevertheless, traditional interests and associated institutions never completely disappeared and in some cases forged new bargains with political actors in the form of monopoly rights and privileges and favorable access to markets and government services. Large numbers of state-owned enterprises and rapidly-growing numbers of civil servants provided avenues for social mobility for other groups. Basic living conditions improved for many through the rapid expansion of infrastructure and increased access to health and education services together with provision of subsidized food, energy and housing and for a time, real wage gains.

However, as early as the 1970s, there were growing gaps and inconsistencies in this strategy. Growth acceleration, particularly in conjunction with easier access to foreign exchange, together with higher investment and imports, proved difficult to sustain once access to higher levels of external resources diminished. Investment efficiency in industry and manufacturing suffered in

part from excess capital intensity and poor management, together with infrastructure bottlenecks and foreign exchange shortages. Despite high levels of investment, industry proved to be incapable of generating sufficient exports or jobs, creating more general pressure for expansion of public employment to absorb increasing numbers of graduates. In countries such as Egypt and Iraq, land reform, a hallmark of the political economy of the times, only marginally improved the condition of landless workers. Much effort was also focused on bringing marginal lands under cultivation for distribution to select groups at the expense of improving efficiency in older areas of cultivation. New rural interests emerged from land reform but as in earlier times, there remained an inherent contradiction of objectives between public monopolies and private entrepreneurs. In the case of Egypt, there was a significant decline in agricultural production through much of the period. In the GCC states, rapid economic expansion also necessitated high dependency on skilled and unskilled migrant labor. In Jordan, the result was chronic trade imbalances and a growing structural dependence on aid. Development policy-making as the outcome of sometimes intense competition between select groups into which entry could generally not be earned through market channels, contributed to growing pressure for price intervention, market restraints and growing levels of public activity. While such mechanisms helped to sustain control and internal balance, they also helped to limit long-term growth prospects and heightened vulnerability to external influences.

By the early 1980s, external vulnerabilities in particular, became more apparent in the aftermath of oil price shocks, deteriorating conditions in the global economy and rapid advances in technology and innovation elsewhere in the developing world. Countries in East Asia and the Pacific for example, seized many of these forces, undertook a dramatic shift towards greater encouragement of private investment, institutional strengthening, promoting manufactured exports and global competitiveness as well as accelerating human capital accumulation and never looked back. The MENA region took a different approach.

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Toward Greater Use of Markets and the Global Economy?

By the late 1970s, MENA economies were experiencing declining rates of total factor productivity growth and a less favorable external environment. Policy choices and investment decisions made in the midst of high oil revenues were proving difficult to sustain. For most of the 1980s and 1990s, growth in GDP per worker remained low and in many countries productivity had been declining for more than a decade.

While many countries began to undergo shifts in development policies in the 1970s, such efforts gained greater scope and depth through adjustment programs of various types in the 1980s and 1990s. Specifically, this chapter seeks answers to the following questions. How did MENA countries modify growth and development strategies during the 1980s and 1990s? Why did growth remain low during this period? What are the prospects for future reform efforts?

ECONOMIC ADJUSTMENT AND REFORM PROGRAMS

During the 1980s, as a result of growing fiscal and external imbalances, many developing countries shifted growth strategies to focus on stronger market orientation and deeper engagement with the global economy. Mechanisms for achieving this shift involved varying degrees of policies to implement macroeconomic stabilization and structural reform. In this regard, stabilization policies focus on demand-side adjustments through fiscal spending reduction to

lower inflation and external deficits, while structural reform policies target the supply side of the economy, with the objective of improving efficiency in resource use, particularly in trade, finance, and industry. (World Bank, 1991).

To achieve growth during the transition to greater market orientation and openness, these sets of policies need to be complementary – in the short run, stabilization can improve the balance of payments but can lower output growth, particularly to the extent that investment budgets are reduced. Structural reform policies can help to promote efficiency gains and growth in output as the economy adjusts to a new growth path. In East Asian economies such as Indonesia, for example, expenditure reduction policies were coupled successfully with measures to enhance fiscal control through an implicit balanced budget rule, streamlining public investment projects and increases in non-oil tax revenues. Such policies were complemented by wage controls and adjustment in key prices, nominal devaluations and trade reforms which boosted non-oil exports. Adequate access to external finance helped to cushion the adverse effects of adjustment. (Islam and Choudhury, 1997). While it is possible to postpone structural reforms during stabilization, these policies are unlikely to succeed unless they are preceded by stabilization. At the same time, macroeconomic stabilization and low inflation are critical for achieving the gains from structural reforms. Lessons of experience suggest that trade liberalization, in particular, can slow down in an environment characterized by distorted factor markets, macroeconomic instability, and inappropriate exchange rate policies. At the same time, domestic deregulation and privatization can create monopolies in the absence of trade reforms that can help to check domestic market power (World Bank, 1991). Thus, deregulation of the domestic market and in particular encouragement of private investment and entrepreneurship, should ideally proceed at roughly the same pace as trade reform so as to enhance the growth impact of reform efforts. Labor market adjustment is also critical as real wage declines help to cushion the impact of lower aggregate demand and output growth on employment.

Financial market liberalization can be kept in line with deregulation in product markets and liberalization in trade regimes since asset markets tend to adjust faster than goods markets.

Issues of timing and sequencing are also important and generally incorporate concerns with local and global economic conditions, technical issues, and political economy factors. Among the questions to consider are the economic implications of a given policy sequence – Will this one type of reform achieve its objectives while other economic distortions remain? Another set of concerns is related to political pressures – Will mounting opposition derail reforms scheduled near the end of the policy sequence? Early steps to stabilize the macroeconomy and deregulate domestic and external sector prices can help to give clear and accurate signals for economic activity including the valuation of public assets. Efforts to improve the efficiency of public enterprises, improve economic decision-making, reform trade policy and build managerial skills and a strong financial sector are equally critical. Privatization of large state enterprises helps to reduce protection and open the economy to greater private investment and competition on a firm, pre-announced schedule for goods and later capital markets. A difficult and time-consuming process like privatization, is best viewed as a means to use resources efficiently rather than as an instrument to maximize public revenues and/or as an end in and of itself. Efforts at institution-building are critical throughout and across all levels of reform including the roles of key organizations which frequently require reform and restructuring. Each type of reform measure would ideally move at the maximum rate consistent with developing needed institutional capacities and insuring measures to cushion particular groups from the inevitable pain of adjustment as price controls are removed (World Bank, 1991a).

It is important to point out that countries with a long history and high degree of government intervention face a particular set of challenges in moving these reform programs forward. The length of exposure to government intervention tends to affect the degree of macroeconomic and structural distortions as well as the quality of institutions and social capital. In addition, the process of economic

adjustment and reform itself, can entail social pain which is influenced by factors such as the severity of the crisis and the nature of adjustment measures. For MENA countries in particular, there are significant public and private interests at stake in moving the reform process forward. Thus, issues of sequencing and timing are linked to initial conditions as well as the degree to which policy-makers bargain with sectoral interests in the form of inter-sectoral and intra-sectoral trade-offs.

POLITICAL ECONOMY FACTORS IN ADJUSTMENT PROGRAMS

In the MENA context, policies to promote devaluation and deficit reduction for example, can concentrate losses among firms which rely heavily on public revenue flows such as industrial state-owned enterprises or those heavily-dependent on imported inputs (Waterbury, 1989). Private and public interests in the construction sector, for example, tend to benefit from high levels of government spending and are thus directly affected by reduced capital spending and infrastructure construction. The net effects on urban households and those with fixed incomes depend on increases in the costs of living associated with devaluation of the exchange rate and/or de-indexing of wages and others. At the same time, such measures can promote greater efficiency in public sector performance and promote agricultural and manufactured export interests. Agricultural interests would likely be existing cultivators already engaged in market-oriented farming. Commercial farmers and light manufacturing exporters have been particularly strong in Morocco, Jordan and Tunisia.

Typically, the second wave of reforms entails measures to reduce consumer subsidies, further liberalize agricultural and industrial prices, implement tariff reductions and remove non-tariff barriers, which are likely to have somewhat mixed effects on specific groups. Agricultural and non-traditional exporters and some public enterprises generally benefit from some of these measures. In the case of agricultural exporters, however, this would also

depend to some extent, on whether domestic terms of trade are distorted through price controls and the extent to which increasing costs of production such as higher prices for electricity or diesel fuel would have to be absorbed. Trade liberalization and devaluation in particular, will tend to hurt public and private protected firms and industries by lowering effective rates of protection and raising the costs of imports. It will also increase pressures for competition and efficiency gains. In some MENA countries, this has contributed to uncontrolled borrowing in the banking system by public and select private entities, divestment and/or the running down of public assets.

In the case of private industrialists, for example, adjustment measures may result in rising costs for domestic inputs and wage bills, which may or may not be offset by easier borrowing and deregulation of prices. Private importers have also played a very significant role in countries such as Lebanon, Egypt, Morocco and the GCC in terms of their capacity at various times, to control key imports, with consequences for local industry and overall levels of competition. These groups are also affected by exchange rate and trade policies to the extent that they borrow in foreign exchange to finance imports. In this case, devaluation may impinge on the ability to repay debts. Furthermore, too much austerity combined with devaluation can provoke capital flight – which in the case of large-scale capital outflows in anticipation of a devaluation, can cause more damage than the reform program may be able to correct. As a result, policymakers have tended to conduct quick, significant devaluations without prior warnings, a series of mini devaluations or as in the case of Egypt in 1986, announcement and then retraction of a “unification of exchange rates” after 18 months. (Waterbury, 1989a).

Public sector enterprises and employees may also react to structural reform measures in a number of different ways – including hoarding raw materials and capital goods in anticipation of a devaluation, which contributes to growing economy-wide pressures on foreign exchange reserves. In countries such as Egypt and Algeria, managerial and military elites have also had significant

influence on monopoly protection and tariff policies (Waterbury, 1989a). Organized labor, which tends to be concentrated in select areas of economic activity, can go on strike, paralyzing public transport and ports. At times, failing to anticipate the grievances of unionized workers can exact a high political price – particularly to the extent that these grievances pour into other sectors such as students, the unemployed and informal workers. In Iran, such economic pressures became linked with religious and ideological currents, particularly in the urban population in 1978, gradually drawing in larger segments of the population and becoming increasingly self-sustaining. Unorganized labor, the urban unemployed, and shanty-town dwellers in big cities have generally been among the least protected interests and also the most prone to violent protests – as exemplified by the bread riots in Egypt in 1977 and in Casablanca in 1981.

To the extent that policy measures are designed to eliminate monopolies, lower tariffs and remove non-tariff barriers, they are likely to affect concentrated interests. This has contributed to a tendency for governments to undertake reform in small measures and in many cases, to adopt actions to offset *ex post* undesirable consequences for key groups of interests. Such factors tend to be compounded in cases where the potential beneficiaries of deeper trade and structural reforms are also historic rivals of existing governments and regimes. Ethnic origin, religious status or regional background have compounded these factors but they have rarely been the sole basis for differences in interests (Hourani, 1991).

Reform processes in the MENA context thus tend to occur in some cases, in the context of large and growing areas of public and private overlapping interests. Liberalization of private investment in Syria from the 1970s to the 1990s, for example, arose from growing overlap between government and private interests in moving some aspects of economic activity towards greater private entrepreneurship. During the 1970s, for example, the government had lifted import controls on certain goods to encourage repatriation of capital.

Similarly, a new authority for free zones was created to encourage investors to take advantage of Syria's relatively cheap labor and geographic location without being subject to the country's trade and currency regimes. After 1973/4, the private sector was encouraged to import on behalf of public agencies and play an intermediary role between state and foreign companies. The number of private industrial and commercial firms approximately doubled. By the mid 1980s, private manufacturers were allowed to keep 50% of hard currency export earnings for their own imports, with the remainder sold to the state-owned Commercial Bank at the official rate.

The government also expanded the "mixed" tourism and transport sectors to include agriculture. This arrangement consisted of establishing large shareholding companies operating as private quasi-monopolies under government protection and a minority share by the state (Perthes, 1995). In the 1990s, liberalization toward the private sector was accelerated through a host of laws and regulations encouraging private investment, the creation of joint public-private companies, the erosion of public monopolies on many commodities and increasing private shares of foreign trade. Law No. 10 of 1991, for example, welcomed foreign and private investment in industry, permitted repatriation of profits, waived import duties and taxes and allowed investors to import goods and hard currency outside government channels. Highly progressive income taxes were cut dramatically. By 1994, an estimated US\$1.78 billion had been invested in 474 new firms under Law No. 10. (Hinnebusch, 1995).

The extent and means of liberalization across MENA countries has largely been left to a competition of public and private interests, bounded by institutional rigidities at any point in time and influenced by exogenous factors and events. The result has tended to be selective incentives to some groups, *ad hoc* exemptions to others and a reform trajectory in which policy measures have been designed and sequenced in a way to generally enhance short-term fiscal revenues, minimize social disruption and avoid shifting the burden of adjustment simultaneously to important commercial and industrial interests.

In the case of Tunisia, for example, policies of *Infitah* launched in the early 1970s under the umbrella of European integration reflected a combination of underlying shifts in domestic interests as well as external factors related to growing European demand for agricultural goods. Following the introduction of Law 69-35 of June 1969 and Law 70-25 of 1970, continued expansion of private investment was encouraged, along with the shift toward an emphasis on agricultural exports and an end to the agricultural cooperative program. The underlying forces contributing to this change in policy direction included among others, a shift in the balance of interests between landowning elites in the Sahel and the emerging business classes (White, 2001).

In the late 1960s, resistance by Tunisian landowners in the Sahel to further expansion of cooperatives in rural areas contributed to a reversal of government policy in a number of areas to prevent further erosion of political support from the rural elite. Policies of nationalization and cooperativization of land had created an agricultural sector consisting of a government cooperative sector and private Tunisian landowners alongside the traditional, low-productivity sector. While production in the government sector languished, private cultivation had expanded through investment in mechanization and the development of lucrative export crops including olive oil and citrus in high demand from Europe. Government cooperatives, on the other hand, were largely focused in the grain-growing regions of Northern Tunisia, were relatively unproductive and concentrated in areas of lower quality land. Private Tunisian landowners tended to dominate the east and the Sahel regions. When government officials attempted to expand the cooperative system into these areas and assimilate the private sector, protest and riots erupted in the town of Ouardanine in the Sahel. The reversal of the cooperative program and passage of the Agrarian Reform Law in 1969 subsequently emboldened rural interests. This was underscored by growing opposition from peasant cultivators who had been incorporated into the cooperative system and were faring badly as a result of weak agricultural production and declining purchasing power. Growing rural-urban

migration reinforced this trend and created growing pressures among unemployed migrants in the suburbs of Tunis.

These groups and interests were somewhat weakly balanced at the time by emerging business interests, including property-owning traders, artisans and small establishment owners. There is little evidence that this group supported export-oriented activity tied to European markets. On the other hand, they did not actively oppose a drift toward *Infitah* propelled by rural elites. Large private commercial and industrial interests were willing to work with government entities as well as international interests through joint operating agreements with European investors in consumer goods and light manufacturing. Thus, a combination of weak domestic agricultural production and economic activity, emboldened rural interests, growing demand from European markets and a lack of obstruction from traditional government allies all appear to have tipped the balance of interests toward *Infitah*.

ECONOMIC ADJUSTMENT IN MENA COUNTRIES

By the mid 1980s, growing fiscal and current account deficits and low levels of savings, together with deteriorating terms of trade, had contributed to growing balance of payments problems. This necessitated a shift toward stabilization and structural reform policies across the MENA region. Total oil revenues for Arab states had declined from a high of US\$213 billion in 1980 to a low of US\$53 billion in 1986, which also contributed to a reduction in Arab assistance flows to many countries in the region (Diwan and Squire, 1993; Richards and Waterbury, 1998). By 1986, development assistance had declined to about 20% of its 1980 levels, affecting countries such as Jordan, in particular. Initially, many governments attempted to buffer the domestic population from oil price shocks by continuing to increase fiscal spending. For the GCC states in particular, shares of government consumption in GDP increased and remained generally higher in the 1980s and 1990s than the 1970s. Fiscal deficits continued to climb rapidly as oil revenues declined and losses in public enterprises accumulated.

By 1987, fiscal deficits were on average over 16% of GDP for countries in the Mashreq (Jordan, Egypt, Lebanon, Syria, Yemen) and nearly 8% of GDP for the Maghreb (Algeria, Morocco, Tunisia). External debt as a share of exports (goods and non-factor services) was over 300% in Egypt, Morocco, Syria and Yemen by 1988. This necessitated serious efforts to reschedule official and commercial debts and to implement adjustment measures. Given unsustainable balance of payments situations, dwindling oil revenues and declining financial inflows, the issue for policy-makers became not whether to adjust but the specific means and content of adjustment. Adjustment would happen anyway – the issue was the extent of social cost and impact on growth prospects. (El Naggar, 1987; Diwan and Squire, 1993).

In Jordan, for example, the economy collapsed following the oil price shock in the mid 1980s and the associated decline in remittances, assistance, and others (Owen and Pamuk, 1998a). In the 1990s there were further disruptions related to the 1990/91 Gulf War. By 1988, interest payments on the external debt had reached US\$8 billion, contributing to a series of defaults, a banking crisis, a collapse in the Jordanian Dinar and an attempt to control the economic crisis through some measure of trade controls. The government began to implement adjustment measures with the support of International Financial Institutions (IFIs) through targeted reductions in fiscal spending and imports, while promoting exports and fiscal revenue generation. However, the extent of fiscal austerity, in terms of freezing government spending and raising the prices of basic goods such as petroleum products, cigarettes and others, came as a shock to the general populace and resulted in widespread nation-wide riots in the spring of 1989. After stability was restored, a new government continued reform measures through stabilization of the dinar, together with appeals for emergency aid to Arab financial institutions. By the 1990s, fiscal deficits had been reduced by half from a high of 18% of GDP from 1990–91 to 8% in 1995 and inflation remained below 4% throughout the 1990s (Page, 2003). Policy-makers devalued and the Jordanian Dinar was pegged to the dollar; tight monetary management and

higher real interest rates helped to re-build foreign reserves. By the latter half of the 1990s, there was renewed but moderate growth, relative to the 1970s, fueled to some extent by inflows of savings from returnees during and after the Gulf War.

Despite early efforts at opening in the 1970s, Egypt's economic reform program really accelerated and deepened in the early 1990s, in tandem with substantial debt relief and development assistance (Richards and Waterbury, 1998a). Average fiscal deficits during the 1980s were 15% of GDP or more and by the 1990s, diminishing access to foreign lending led to increased financing of the deficit while rates of inflation reached 25%. Some 80% of government spending consisted of subsidies, public sector salaries, interest on the public debt, and the military (Richards and Waterbury, 2008). In 1991, the government negotiated approximately US\$20 billion in debt relief from external creditors and launched adjustment measures. Fiscal deficits declined to less than 5% of GDP by the mid-1990s and inflation rates fell rapidly, dropping below 10% by 1994 and to under 3% in 2001 (Page, 2003). Egypt pegged its nominal exchange rate to the dollar; international reserves increased significantly. Growth increased moderately until the late 1990s when it reached 6.3%, boosted in part, by greater access to external resources and public infrastructure programs.

However, merchandise exports languished and external viability was supported by Suez Canal earnings, remittances and tourism revenues. Overvaluation of the real exchange rate steadily increased through the 1990s; in 2001 when government officials devalued and adopted a managed peg system, leading to a floating regime in 2003. Manufactured exports and FDI inflows remained weak throughout the 1980s and 1990s. In agriculture, for example, prices of export crops were revised to bring them closer to border prices. Public industrial enterprises faced an array of output price systems, with prices for "important" products remaining fixed at low levels with subsidies from the public budget. Thus, price liberalization in the 1980s was introduced for select products and the majority of industrial firms remained inward-looking and under

public management control (Oweiss, 1990). Privatization and deregulation of industrial and non-traded sectors remained limited; by the late 1990s, divestitures totaled 26% of public industry. In the mid-2000s, however, such reforms accelerated and the government completed 132 privatizations and 57 partial ones, generating over US\$14 billion. A number of these privatizations suggested close ties between public and insider interests (Richards and Waterbury, 2008a; Subramanian, 1997d).

The GCC countries as a whole, launched reforms later than most countries in the region, for the most part in the mid-1990s. Large budget surpluses began to dissipate from 1982 onwards as expenditures continued to grow, while oil prices and revenues declined (Devlin, 1996). However, relative to other MENA countries, budget deficits and external debt accumulation were relatively limited. Unlike Tunisia, Morocco and Jordan, government spending continued to grow, in an attempt to offset the effects of lower oil prices and a deteriorating global environment. Budget deficits for the GCC as a whole were 1% of GDP in 1981–1985 but increased to nearly 10% of GDP in 1992–1994. Capital expenditure declined from 21% of GDP in 1981–1985 to 13% during the late 1980s and then again by half to 7% in 1992–1994 (IMF, 1996). Current expenditures as a share of GDP increased from 24% of GDP in 1981–1985 to 38% in 1992–1994 as subsidies and public employment were maintained and in some cases increased to cushion the effects of declining oil prices. Countries such as Kuwait supplemented lower oil revenues with earnings from foreign investments of surplus revenues through the Fund for Future Generations. However, as a result of the 1990–1991 Gulf War, the budget deficit in Kuwait exceeded 100% of GDP and in Saudi Arabia it increased to nearly 17% of GDP over the same period.

After the Gulf War, most GCC countries such as Kuwait were in a weaker fiscal and foreign reserve position and the lower oil price environment helped to make further fiscal adjustment more difficult but necessary. Fiscal deficits were higher than before the 1990 Gulf War and had become more structural in nature due to high levels of maintenance costs for public infrastructure along

with rising social spending on health, education and public employment. Growth and productivity were stagnant for most GCC states; real per capita growth was low or negative for much of the 1990s. By the late 1990s, a number of GCC countries such as Saudi Arabia launched aggressive measures to eliminate budget deficits by containing spending increases and increasing non-oil revenues. Expansion of non-oil revenues was viewed as a way of achieving spending commitments in health and education during a period of lower oil revenues. Budget deficits for Saudi Arabia for example, declined from 19% of GDP in 1991 to 3% in 1996, rising moderately to 6% in 1999 as a result of reduced expenditures on transfers and streamlining of subsidy programs. However, fiscal balances generally remained volatile through the 1990s, due to limited reliance on non-oil revenues and volatility in oil prices.

The United Arab Emirates, which was established in 1971 as a federation including Abu Dhabi, Dubai and five smaller emirates, was particularly hard hit during the early 1980s. During the 1960s and 1970s, nearly one-fourth of Abu Dhabi's expenditure was devoted to infrastructure, primarily building up oil-related services, while in Dubai the focus of development planning was more concentrated on shipping and logistics, beginning with completion of the dry dock in 1979. By the 1980s, however, many public projects were being canceled or scaled down as budget deficits skyrocketed. The combination of lower oil prices and reduced capital spending is estimated to have dampened growth prospects significantly – GDP is estimated to have declined by 4.5% per year between 1980 and 1989 (Owen and Pamuk, 1998).

THE GROWTH SLOWDOWN

A number of studies have pointed to the region's weak growth performance during the 1980s and 1990s (Keller *et al.* 2002) relative to its own performance during the 1970s as well as with respect to other middle-income regions, most notably East Asia. This is attributable to a combination of factors related to lower oil prices and capital inflows, along with a weaker global economy during

the 1980s and the nature of domestic policy adjustment to these shocks. In many countries, gross domestic investment declined while government consumption including benefits and wages prevailed, inhibiting adjustment in labor markets among others. A large portion of activity in product and credit markets continued to be affected by price controls and barriers to entry, while trade protectionism increased in some cases through much of the 1980s and 1990s. Whereas countries in East Asia and the Pacific scaled down interventionism and turned outward, MENA economies in comparative perspective retrenched, turned inward and attempted to cushion domestic populations from deteriorating living standards by maintaining subsidies and transfers as well as high levels of protectionism.

One result was continuation of a large, protected government sector and insider interests with relatively limited price adjustment alongside more flexible-price markets. A two-tier labor market characterized by protected government workers and unprotected workers is a case in point and is addressed in later chapters. The process of adjustment to change in individual markets and the way in which these markets interact is a rich area for future research in the MENA economies. Suffice it to say that in the 1980s and 1990s, economic adjustment tended to be unevenly distributed across individual markets and interests.

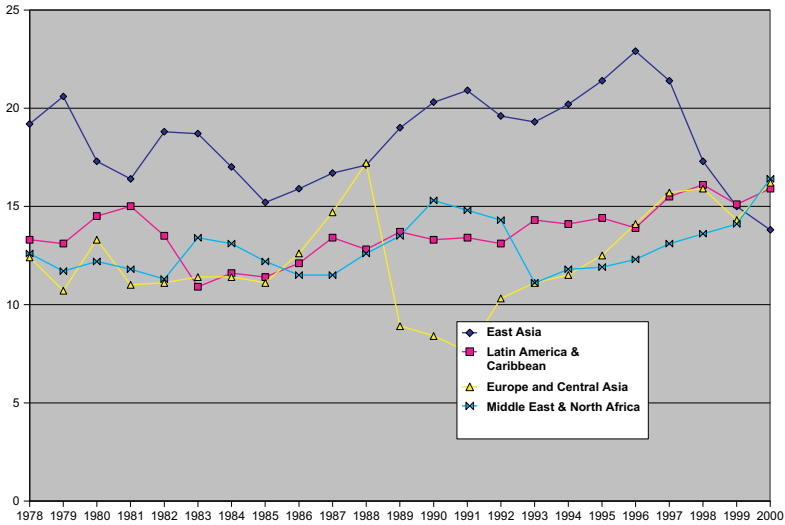
By the mid to late 1990s, for example, tighter monetary policies and a decline in fiscal deficits had contributed to a general deceleration in inflation for most economies in the region. In Egypt, for example, inflation rates had declined by more than half from the early 1990s to the early 2000s. External current account deficits decreased in response to tighter demand management and in some cases, adjustments in exchange rates. However, missing from many reform programs was an internal adjustment program that relied sufficiently on reduced consumption rather than reduced investment to generate the surplus required. In general, when surplus is achieved by increasing savings for sustained investment levels, output growth can be maintained. If, however, adjustment comes from investment cutbacks for given private savings rates,

adjustment is bought at the cost of lower output growth. For the most part, adjustment for most economies occurred primarily in the form of lower investment and capital outlays which had adverse effects on growth and generally did little to address underlying imbalances in the economy. This was particularly the case for large oil-exporting countries and was in some cases, predicated on the assumption that oil prices would recover and stabilize at higher levels.

In most MENA economies, shares of gross fixed capital investment in GDP, after expanding rapidly during the 1970s, declined over the period 1980–95 and remained lower throughout the 1990s and well below the average for East Asian countries. Furthermore, private investment shares declined in some cases to levels considerably below other middle-income regions and remained generally volatile (see Fig. 1).

In countries such as Algeria and Tunisia, for example, total investment shares of GDP declined during the 1980s; with public investment increasing as a share of total investment in some cases (Figs. 2–3). While public investments are designed to remove bottlenecks to productive activity and can have favorable implications for the overall efficiency of investment, it was not clear that this was the case in a number of MENA countries. In Egypt, for example, public investment in the New Valley and Toshka irrigation projects appear to have had limited influence on promoting export-growth (Economic Research Forum, 2004).

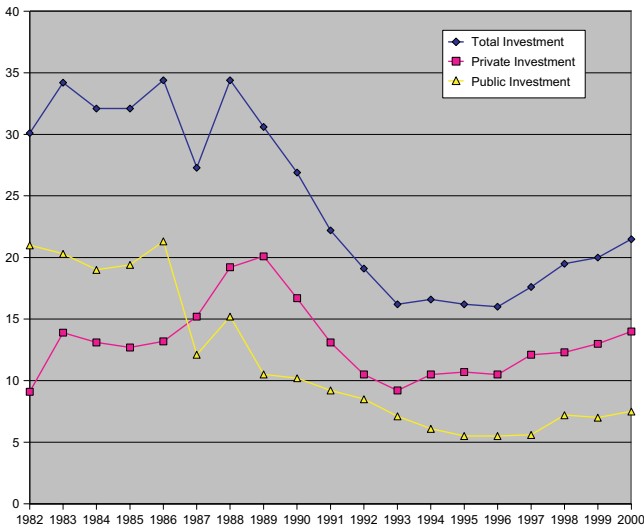
Similarly, improving the efficiency of private investment requires clear and credible market signals transmitted to investors, particularly with regard to a limited set of sub-policies. Investors must be convinced that external balance targets and associated exchange rate policies, for example, will remain fully consistent with the fiscal balance and/or the government's policy stance to support a private sector savings surplus. Similarly, the government can signal to exporters that they will enjoy long-term incentives and profit margins which on average, are not adverse compared to the incentives available for supplying the domestic market. (Roe *et al.* 1989). While countries such as Tunisia had relatively higher



Note: Private investment covers gross outlays by the private sector (including private non-profit agencies) on additions to its fixed domestic assets. World Bank National Accounts data, and OECD National Accounts data files.

Source: World Bank database; based on national accounts; subject to revision.

Fig. 1 Private Investment by Regions (% GDP)



Source: World Bank database; based on national accounts; subject to revision.

Fig. 2 Algeria: Investment Shares (% GDP)



Source: World Bank database; based on national accounts; subject to revision.

Fig. 3 Tunisia: Investment Shares (% GDP)

rates of success with the latter, as demonstrated by growth rates of manufactured exports on the order of 15% per year from 1987–92, nearly all MENA countries have had problems with the former. Other factors important for improving the efficiency of private investment such as correcting distortions in relative prices, realigning the exchange rate, promoting competition including in imports, did not necessarily materialize in adjustment programs for many countries in the region.

A primary weakness of adjustment measures was the inability to transition to more sustainable fiscal spending and stimulate national savings. Relative to East Asian and other middle-income regions, MENA economies maintained very low rates of savings through the 1980s and 1990s. On average, gross domestic savings declined from 30% GDP in the mid 1970s to 20% in the early 1990s. At the same time, broad measures of government expenditure and net lending in GDP were higher in MENA countries than in other developing areas; estimated at nearly 39% relative to 22% for developing countries overall from 1980–95 (Eken *et al.* 1997a).

Expenditures were also heavily concentrated in current spending items creating more pressure for high fiscal spending. This changed little as a result of stabilization reforms. In the case of Egypt's stabilization program during the 1980s, 16% of the reduction in fiscal spending was focused on current spending relative to a 64% reduction in investment expenditures—primarily projects in electricity and tourism sectors. Within current expenditures, subsidies and transfers declined by 2.4% points while wages and salaries including pension payments saw a modest reduction of about 0.6% percentage points of GDP (Subramanian, 1997a). For most MENA countries, such rigidity in fiscal spending has remained high; wage bills have averaged 15% of non-oil GDP or more compared with 7% in emerging markets from 1997–2004. (Fouad *et al.* 2007).

Slow progress on privatization of loss-making state-owned enterprises further weakened public saving. Private savings were generally inhibited by low or repressed real interest rates, lack of diversified supply of financial instruments, needed improvements in mechanisms for financial intermediation, among others. In Egypt and Jordan, for example, interest rates were liberalized in the 1990s; in Syria, interest rates were administratively set by the Ministerial Economic Committee and rates remained constant at 4% for deposits and 8.3% for lending. (Nashashibi *et al.* 2001).

Volatility in government revenues also remained high — estimated at anywhere between 24% and 41% of GDP during the 1980s and 1990s due to high dependence on oil and related revenues (Eken *et al.* 1997). In Egypt, a large percentage of the improvement in government revenues during the 1990s was related to a one-time gain in the form of introducing an exchange rate anchor¹ which raised revenue from oil receipts (1% increase in revenues), Suez canal receipts (2% increase in revenues) and taxes on international trade. This had the economic effect of increasing rents extracted from foreigners rather than reducing aggregate demand via lower disposable income of residents (Subramanian, 1997a).

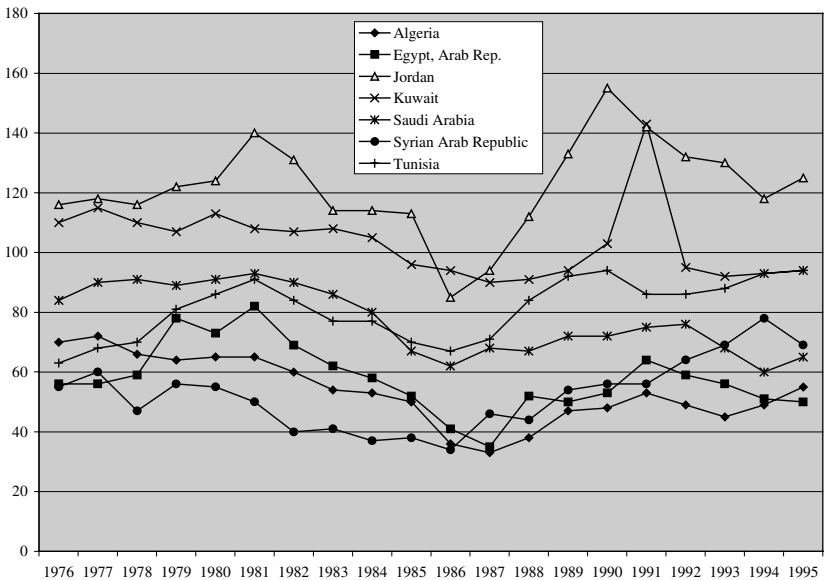
¹ This was preceded by strict monetary and credit targets and unification of different markets for foreign exchange.

Furthermore, without debt forgiveness related to the Gulf War, current expenditures would have been higher and the overall fiscal adjustment lower by 1.4% of GDP.

In countries such as Jordan, volatility of revenues in the form of aid ranged from above 6 percentage points of GDP per year with a standard deviation of 3 percentage points and annual ranges from 2% of GDP to 14% of GDP during the 1990s through the 2000s (Fouad *et al.* 2007a). In addition, non-oil tax revenues were remained low, averaging 11% of non-oil GDP; about half the average for emerging markets. Countries such as Jordan, Morocco and Tunisia made greater use of general sales and Value Added Taxes (VAT), in conjunction with trade reforms during the latter part of the 1980s, but these were more the exception than the rule. Profit transfers from some public companies were another important source of revenues as in the case of phosphate exports and telecommunications services.

Policies to stimulate production of exportable and importable goods would have helped to ease the severity of demand restrictions needed to achieve a given balance of payments target. In addition, many countries in the region had misaligned exchange rates from the 1970s through the 1990s, which likely dampened the potential impact of expenditure-switching policies. In countries' such as Turkey for example, economic adjustment programs coordinated progressive depreciation of the exchange rate with gradual reductions in import restrictions and active policies of export promotion, with the result that export volumes quadrupled between 1980–87, imports rose, but the current account deficit fell considerably. The stimulation of increased exports to aggregate demand and the higher availability of imports contributed to accelerated growth, with average annual growth rates of GDP at 5.5% from 1980–87 (Lopes, 1989).

In most MENA economies, measures of openness (defined as the share of exports and imports of goods and non-factor services as a share of GDP) also declined during the 1980s (Fig. 4). This reflected growing protectionism vis a vis the global economy. While uniform tariffs declined in some cases, towards the latter half of the 1980s,



Source: World Bank database; based on national accounts; subject to revision.

Fig. 4 Openness in MENA Countries (Trade % GDP)

other measures of trade protection, namely non-tariff barriers and tariff peaks increased. This is addressed in subsequent chapters. For developing countries more generally, there are fewer possibilities than in industrialized countries for increasing exports by shifting the sales of a significant share of national output of tradable goods from the domestic market to international markets (Lopes, 1989). Tunisia and Morocco managed this by actively encouraging entry by new exporting firms, along with exchange rate changes and reductions in trade barriers. In Egypt, on the other hand, following the initial exchange rate depreciation there was a real appreciation (real effective exchange index) of about 30% by the mid 1990s; productivity growth and non-oil export performance remained weak. High unit labor cost indices in the public sector suggest that there was a deterioration in competitiveness of 57% between the early and mid 1990s. Non-oil export volumes were lower and Egypt's share in world exports declined from over 0.2 to 0.08% and further in the latter half of the 1990s, Shares of East Asian



Source: World Bank database; based on national accounts; subject to revision.

Fig. 5 Openness by Region (Trade % GDP)

developing countries were increasing from 12 to over 19% over the same period (Subramanian, 1997b) (see Fig. 5).

The extent of private activity also remained limited. Despite efforts at incremental privatization through *Infitah* policies, and growing incentives to investors such as Law 43 in Egypt, such initiatives did little to change the fundamental character of the economy. In many cases, the public sector continued to grow as much if not more than the private sector by the sheer force of inertia. Thus, large segments of economic activity remained characterized by substantial losses, low, sometimes negative rates of return, contributing negatively to budget deficits and balance of payments positions. (El Naggat, 1989) During the 1990s, for example, MENA's share of global privatization transactions among developing countries was less than 3% and by 1998 the region accounted for less than 5% of all Private Participation in Infrastructure (PPI) projects worldwide (Page, 2003a). Minority shares in state owned enterprises

in some cases were offered to investors, while retaining government operating and managerial control and there was reluctance to allow foreign strategic partners to invest in key industries. Episodes such as the 1994 strike of an estimated 7000 textile workers in Egypt to protest privatizations proposed under an agreement with the International Monetary Fund, helped to slow progress on privatization efforts both in Egypt and region-wide. Private investment continued to lag well behind East Asia and Latin America throughout the 1990s while levels of foreign direct investment (gross) were less than 1% of GDP for the region in the much of the 1990s.

Relative to other developing regions, fiscal spending reductions in MENA countries were not correlated with severely declining human development indicators and rising measures of inequality. In many developing regions, adjustment programs were associated with lower ratios of investment to GDP and declining levels of education spending and school enrollment. In the MENA economies, primary enrollment rates continued to increase rapidly with some slowdown in secondary education improvements after 1986. Real per capita private consumption was lower in 1994 than in 1985 which had dampening effects on private health and education expenditures which are relatively income elastic. (van der Gaag, 1997). Most governments maintained shares of health spending and increased education expenditure into the mid 1990s, although per capita health spending still declined. Basic health indicators however, continued to improve. Gini coefficients fluctuated between 0.32 and 0.44 and were somewhat lower in the 1990s than the 1970s (Iqbal, 2006).²

Real wages however, fell by more than 5% per year after 1986 and as much as 14% per year in countries such as Iran. By 1990, for most of the region, real wages were at 70% of peak levels in the 1980s and remained below 1975 levels. (World Bank, 2004). This is in striking contrast to other middle-income regions such as

² Data are based on a limited sample including Algeria, Egypt, Iran, Jordan, Morocco, Tunisia and Yemen.

East Asia and Latin America where real wages increased substantially during the 1990s. In East Asia in particular, growth in real manufacturing wages more than doubled over the same period, with significant implications for sustainability in welfare improvements (Noland and Pack, 2007).

To offset the effects of declining economic activity and lower real wages, a significant number of countries such as Jordan vastly expanded access to social assistance programs. In Jordan, for example, despite efforts to target food subsidies to lower income groups, the percentage of the population using food assistance cards nearly doubled from 46% to 91% of the population during the 1990s and cards were distributed to all sectors of society without regard to level of income. (El Rayes, 1997).

The tenuousness of this new reform “equilibrium” began to emerge in the mid to late 1990s for most MENA countries. While high levels of government intervention helped to create temporary buffers such as high levels of public employment, price subsidies and tariff protection partly in response to shocks, they did so at the cost of fundamental needed adjustments and movement of resources to higher productivity uses. Large numbers of government employees, for example, helped to prevent increases in poverty incidence and worsening income distribution while at the same time inhibiting deeper adjustments and perpetuating a two-tier labor market in which entry into public sector jobs was rationed largely on the basis of non-market criteria.

Going forward, achieving sustained growth prospects requires an enhanced focus on macroeconomic policy, particularly on fiscal policy as a possible source of disequilibrium but also as a major tool for eliminating distortions in the microeconomy. Price interventions as a vehicle for achieving social and political goals have proven to be costly for growth by necessitating direct and indirect budget transfers and contributing to a misallocation of productive resources (El Naggar, 1989). Continued progress on medium-term adjustment is important for correcting distortions in economic policies, improving mobility and allocation of resources and eliminating bottlenecks and rigidities in productive sectors. Institutional

changes to reinforce growth potential and reduce vulnerability to external shocks are equally vital. This requires to some degree, a wider range of policy instruments and targets and the ability to monitor gains and losses. The most critical areas are structural reform in public sector enterprises and improving competitiveness in the microeconomy, the financial system, trade regimes, labor markets and social protection mechanisms, all of which are discussed in greater detail later in this book. Such policies can not only help to restore a viable balance of payments situation, but can also ensure adequate rates of economic growth while achieving structural changes to prevent chronic balance of payments difficulties which have plagued most MENA countries since the 1970s. Through the course of economic adjustment programs policy-makers generally resorted to a small number of policy measures to achieve rapid short-term stabilization in external balances. However, what was lacking was sustained progress on medium-term adjustment measures such as a shift to more sustainable fiscal spending patterns, eliminating barriers to entry and maintaining adjustment in key variables such as the exchange rate. Such measures would have helped internal adjustment consistent with external targets as well as promoted higher economic growth and facilitated structural changes.

In economies with high levels of intervention, there is an existing complex, varied and generally opaque incentive structure. When new policy measures are superimposed on older policies it is difficult to trace the logic of intervention back to a well-defined and consistent set of government objectives (Roe *et al.* 1989). Furthermore, in many MENA countries, there is a web of interlocking relationships between the public sector, national budgets, foreign exchange availability, the banking system and employment of university and secondary school graduates. Each element of this system relates to others in a precarious balance (El Nagger, 1989).

In some developing countries, making the transition to deeper structural reforms and less government intervention has, in many cases, required aspects of a “clearing the deck” approach by focusing on addressing inefficiencies in the prevailing status quo. Countries

in transition from a heavily-government dominated economy to greater reliance on private entrepreneurship exhibit characteristics of this approach. A longer run view on the size of government, the role of the public sector in the economy and the marginal costs and benefits of more intervention are also critical. In China, for example, in the early 1980s, policymakers launched an extensive benchmarking exercise comparing the economic achievements and structure of the Chinese economy against the rest of the world. This helped to provide the impetus for accelerated reforms in critical areas through quantitative evidence on comparative cost efficiency in key areas of production. It also facilitated a focus on achieving forward-looking efficiency gains and served to highlight areas dominated by vested interests and lingering protectionism.

MENA'S RECENT GROWTH TAKE-OFF

Since the early 2000s, many economies in the MENA region have experienced the strongest growth acceleration and rise in per capita income in decades. Accelerated growth during the 2000s has been linked with dramatic improvements in terms of trade, together with higher rates of investment and increasing measures of openness. Real GDP growth averaged over 4% for the first four years of the decade, rising to 6.3% in 2006. By the mid 2000s, real per capita growth was 4.2% for the region and 75% of the developing country average. Growth among the region's non-oil exporters was slightly lower than the regional average, although still strong at 3.6% per capita (World Bank, 2007a).

With higher oil prices, cumulative additional export revenue in recent years was estimated to reach US\$1.9 trillion (2004–2008) relative to (2001–2002) levels and government revenue from oil and gas were estimated at over US\$510 billion in 2006. The contribution of gross domestic investment to GDP growth more than doubled in 2006 relative to the early 2000s and private investment was estimated at nearly 15% of GDP in 2006 (World Bank, 2007; Husain, 2007). Investment plans in the GCC countries alone were estimated at over US\$800 billion over five years beginning in 2007,

including oil and gas sectors (funded largely by national oil companies), infrastructure (public-private partnerships) and real estate (private sector). Non-oil exporting countries in the region also benefited from increased exports of goods and labor to oil-exporting countries.

The MENA region as a whole, has also been host to growing amounts of foreign direct investment, estimated at historic levels of US\$24 billion in 2006 (World Bank, 2007a). This was largely concentrated in Egypt, Lebanon, Morocco, Tunisia, Jordan, and the UAE. At the same time, there has been a shift toward greater openness in the form of rising imports and a lowering of tariff rates. For the region as a whole, tariff reforms since 2000 ranked in the top 62nd percentile of countries worldwide, higher than any other region with the exception of Europe and Central Asia.

For many countries within the region, the prospects of higher capital inflows have also accelerated domestic reform efforts. In Egypt, similar to the *Intifah* policies of the 1970s, reforms maximized the opportunities presented by higher liquidity within the region. Investment was more than 25% of GDP in 2007 and growth rates were topping 7%. After 2004, exports and imports rose sharply, along with higher remittances, Suez Canal earnings and tourism revenues. Fiscal deficits were reduced to about 8% of GDP in 2006/7 relative to 9% in the early 2000s (Enders, 2008). Weighted average import tariff rates declined to about 7%. Reforms of the business environment focused on encouraging the entry of new firms and exporters alongside state-owned enterprises and some import-competing industries. The fourth largest state bank and a large department store together with a number of smaller firms and unused public land were sold to foreign investors totalling 1.3% of GDP (IMF, 2007a).

In Saudi Arabia, real GDP growth was over 4% in 2006. External current account surpluses reached a record level of US\$95 billion or 27% of GDP in 2006 along with a nearly 30% increase in imports of goods and non-factor services and accumulation of nearly US\$70 billion in net foreign assets. Overall, the fiscal surplus of the central government was similarly large and estimated at over 20% of

GDP. Foreign direct investment also expanded rapidly from US\$0.2 billion in 2000 to US\$18.3 billion in 2006 (IMF, 2007b).

These developments bode well for the region's future growth prospects. The recent Commission on Growth and Development Report, for example, highlights characteristics of successful, sustained-growth economies in terms of (i) high rates of savings and investment (i.e. education, health, infrastructure, on average at 25% of GDP); (ii) high levels of engagement with the global economy via imported ideas, technology etc; (iii) macroeconomic stability in the form of moderate inflation and fiscal responsibility, together with orientation towards the future in terms of forgoing some present consumption in pursuit of higher levels of future income; (iv) market allocation of resources, and (v) committed, credible governments (Commission on Growth and Development, 2008). Furthermore, policy-makers in sustained high-growth economies here tended to face uncertainty not with paralysis but with a willingness to embark on partially-designed approaches while recognizing the need for experimentation and periodic reassessments. This experimental approach is ideally supported by a targeted focus on improving policy and implementation effectiveness as well as a degree of central coordination of policies to ensure strong linkages with a coherent growth strategy (El-Erian and Spence, 2008).

CONCLUSION

In the post-war period, MENA economies, like other developing countries, built large, mixed economies with significant levels of government activity and protectionism. This changed moderately as a result of economic reforms undertaken during the 1980s and 1990s and remains a challenge for policy-makers today across the region. Lack of fundamental adjustment during the 1980s created the prospects for weaker growth throughout the 1990s.

Growing internal and external imbalances were exacerbated by external shocks during the 1980s and accumulating policy-induced errors. The response was generally characterized by

discretionary adjustments in fiscal, monetary and exchange rate policy to a lesser extent, to achieve short-term improvements in external balances. Adjustment in some cases occurred through cuts in investment and higher rent-related revenues. Across-the-board liberalization measures generally did not materialize, rather, select areas and groups were given greater leeway to pursue profit-oriented activities in an environment generally characterized by over-regulation and barriers to entry. Fiscal deficits remained vulnerable to internal pressures while fundamental shifts in the profitability of public investment programs and state-owned enterprises were largely not addressed. A central challenge for policy-makers has been to manage the speed of transition so as to prevent disintegration of a carefully-engineered social equilibrium. But this has generally resulted in continued high levels of government intervention as the spectre of socially-costly adjustments has drawn the government back to manage the process, preventing a shrinkage of the public sector. Slow progress on medium-term adjustment programs related to labor and financial markets, trade policy and privatization were associated with and further compounded this problem.

Since 2000, however, higher liquidity has facilitated progress on further adjustment throughout the region and a new period of *Infitah* is emerging. This has created another window of opportunity for accelerating reforms to liberalize domestic and external trade. Lessons of experience suggest that the biggest chances for liberalization can come with expanded economic activity which can lower the net benefit of protectionism and provide opportunities for moving resources into higher productivity uses. A greater shift towards private entrepreneurship and the global economy also brings new actors, organizational innovations, new disciplines and the opportunity to re-negotiate existing commitments. The future course of liberalization in MENA economies lies in the balance between emerging profit opportunities, existing political bargains and expectations regarding the role of government in society-at-large.

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Oil, OPEC, and the Challenges of Surplus Management

The MENA region accounts for over 60% of world oil reserves, and 30% of world crude oil production. It hosts some of the lowest-cost oil producers in the world who also represent the majority of OPEC members and play a leading role in pricing and production strategies. Levels of oil, natural gas, and related revenues contribute more than 80% of export earnings in some countries, generate a large share of government revenues and are important determinants of growth performance.

From a development perspective, this has tended to create two interrelated sets of challenges for a large number of policy-makers in the region: how to optimize oil production given the behaviour of the global oil market and how to manage the oil surplus to maximize development prospects. This chapter explores both sets of issues and asks the following questions: What did the oil price shocks of 1973, 1979, 1986 and 2002/03 reveal about the underlying behavior of OPEC, oil prices and the oil market? How did oil windfalls influence patterns of development and reform in select MENA oil exporting countries? What are the lessons for future management of oil windfalls?

MENA AND GLOBAL ENERGY

Countries in the MENA region hold the vast majority of the world's oil reserves and generate 30% of world oil supply

(World Bank, 2007). In 2006, export revenues were estimated at over US\$500 billion. Saudi Arabia, Iran, Iraq, Kuwait, and the UAE lead the region in oil reserves, with total proven oil reserves of over 700 billion barrels (BP, 2007).

The continued strength of oil in global energy markets comes from its importance in the transportation sector, where it has accounted for more than 90% of the market; nearly 30% of energy demand in the industrial sector and 9% in power generation, where it has lost some ground to coal, gas, and nuclear power (Okogu, 2003). Global oil consumption is expected to rise by 15 million barrels per day (mbpd) by 2015 with significant increases from developing countries, including those in the Middle East and North Africa region (Table 1).

Table 1 World Oil Demand (mbpd) (Select Countries and Regions)

World Oil Demand	2005	2015
World	83.6	99.3
OECD	47.7	52.4
OECD North America	24.9	28.2
United States	20.6	23.1
OECD Europe	14.4	15.4
OECD Pacific	8.3	8.8
Transition Economies	4.3	5.0
Russia	2.5	2.9
Developing Countries	28.0	37.9
China	6.6	10.0
India	2.6	3.7
Middle East	5.8	8.1
Africa	2.7	3.5
North Africa	1.4	1.8
Latin America	4.9	5.6
Brazil	2.1	2.7
Int'l marine bunkers	3.6	3.9

Source: IEA World Energy Outlook (2006); World Bank (2007). Investing in Oil in the Middle East and North Africa: Institutions, Incentives and National Oil companies, p. 147.

Natural gas remains an important source of fuel in electric power and industrial sectors; in 2006 the industrial sector accounted for 44% of world natural gas consumption and this is projected to continue at to 43% in 2030 (EIA, 2007). Middle East countries have over 40% of world natural gas reserves and produced about 10% of world natural gas in 2004. Shares of global natural gas production are expected to rise to 15% in 2030. Russia, Iran and Qatar, hold some of the world's largest natural gas reserves, representing nearly 60% of the world total.

Oil and the behavior of oil prices present special challenges for policymakers. Oil is an exhaustible mineral, in theory with fixed supply and highly volatile in price, particularly since the early 1970s. Oil demand, on the other hand, is created by the decentralized decisions of millions of firms and households, is generally slow to respond to changes in price in the short term and is closely linked with growth in gross national output. According to the Hotelling Theorem (1931), in a competitive market, there is an equilibrium price path for a depletable resource in which the net price rises over time at the rate of interest.¹ This implies that the long run competitive price must rise because of inherent growing scarcity.

An alternative view asserts that oil prices are more closely linked to replacement costs rather than finite stocks; (Adelman, 1993b) that is, the cost of maintaining and expanding inventory. Oil reserves are thus continually depleted by extraction and increased by exploration – and over the long term, prices have trended downward, reflecting the decline in investment per unit of output required to produce an incremental barrel. However, this apparent downward trend in oil prices has been punctuated by episodes of rapid price increases most notably in 1973, 1979

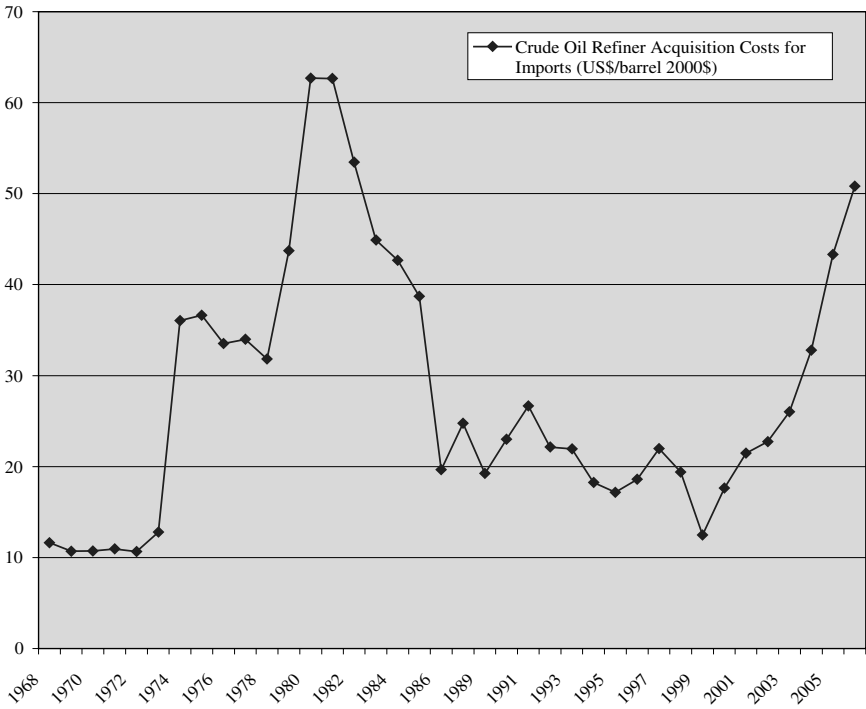
¹ Other studies extend the Hotelling Theorem to assess the impact of different forms of market structure, imperfect capital markets and the implications of uncertainty, imperfect information, assumptions regarding expectations, endogenous changes in demand and cases where the true size of the natural reserve is not known initially.

and 2002/2003. During high price episodes, expectations of scarcity tend to create Hotelling-like price scenarios in which today's price is driven up by fears of future supply disruption (Mabro, 1992a). Spot prices rise as a result of precautionary and speculative demand increases (on the basis of anticipated scarcity) on top of existing demand levels, leading to higher official prices and exacerbated by a sluggish response in consumer demand. In between these price episodes, excess OPEC supply (since 1974) and soft markets have tended to keep prices in a range generally near prices of substitute fuels, balancing diminishing returns with increasing knowledge.

Oil prices and the entry of OPEC

Crude oil prices (adjusted for inflation) in the period immediately following WWII to approximately the early 1970s were low and declining. Several factors contributed to this outcome. Oil production occurred largely in the confines of a small number of vertically-integrated companies which controlled upstream production through agreements with sovereign governments and managed downstream refining marketing channels, largely in industrialized countries. "World" crude oil prices emerged from the single "posted" free on board (fob) price for crude oil produced in the Middle East and shipped to Europe after WWII (Adelman, 2002a) (see Fig. 1).² This required single fob price meant that all buyers would in fact pay the lowest price charged

² The world crude oil price can be interpreted as the average fob spot price charged each month for imports into the United States as computed by the Department of Energy (DOE) and checked closely with WTI, Brent or the OPEC market basket. The Imported Refiner Acquisition Cost (IRAC) is a volume weighted average price of all crude oils imported into the United States over a specific period. Because the United States imports more types of crude oil than any other country, it may represent the truest "world oil price" among all published crude oil prices. It is also usually similar to the OPEC Basket price so it too is typically about US\$2 per barrel less than the WTI spot price and is about US\$1 per barrel less than the Brent price.



Source: EIA, DOE.

Fig. 1 “World” Oil Price (US\$ per barrel, 2000\$)

to most distant buyers. Following the entry of “Independent” oil companies alongside the “Seven Sisters” or the major oil companies, there was increasing competition in refined products and prices discounts as lower refined product prices filtered back into lower crude oil prices. From 1947–1970, real oil prices declined by nearly 70% (Adelman, 2002b). It was this declining price trend in particular, a cut in posted prices that led to the creation of OPEC in 1960 with the aim of putting a floor under crude oil prices. This was underpinned by fiscal needs of newly independent states and rapidly growing populations. But it was not until the events of the 1970s that OPEC emerged as an influential player in the global oil market.

The first oil price shock

Oil prices began to rise in the early 1970s after nearly 25 years of steady decline. In 1970, a break in the Trans-Arabian pipeline disrupted supplies of oil to the Mediterranean and cutbacks in Libyan production contributed to a temporary spike in prices, particularly Libyan crude. Higher prices were linked with precautionary demand increases and inventory build-up, which were reinforced by speculative demand increases. Nevertheless, this overstated consumption and threatened to weaken prices later; a pattern repeated in subsequent price shocks. The temporary price increases were followed by additional cutbacks in Libyan oil production and Libya gained many times its investment in total revenues (Adelman, 1996a).

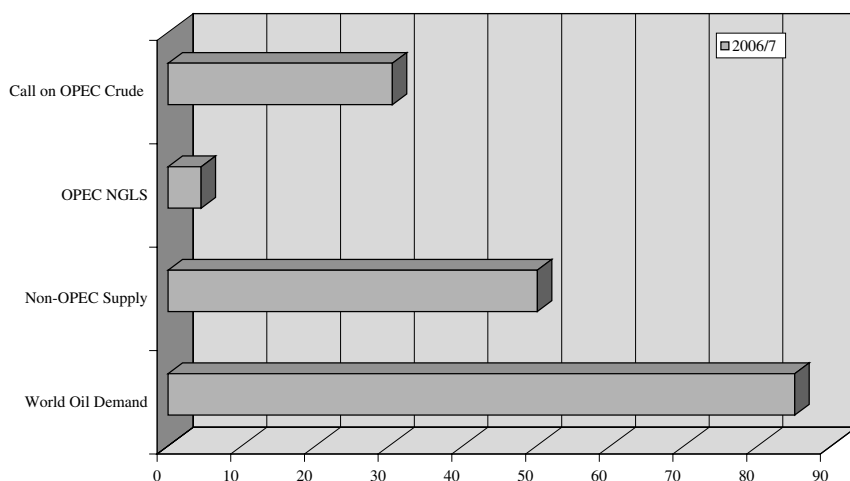
By early 1973, oil demand had been rising steadily and excess supply among Gulf producers had waned. Following the start of the 1973 October War, OPEC oil producers agreed to implement an immediate 5% reduction in production per month and embargo US and Dutch markets. Spot oil prices peaked, although the actual loss of output was less than the inventory buildup of the previous year or approximately 340 million barrels (Adelman, 1996b).³ Despite the fact that the cutback lasted only two months and the amount lost was less than what had been added to OECD inventories in early 1973, precautionary demand increases, driven by fears of supply shortfalls, drove up spot prices, as producers feared the potential disruption to factories, trucking fleets and power plants. As a result, refiners and other users paid higher spot oil prices for oil that they did not actually need as a form of costly insurance against production disruption. Price controls in

³ Spot prices are quoted for single cargoes of crude oil and are valuable market indicators to capture excess supply or demand in the oil market. The majority of oil consumed, however, exchanges hands through long term contracts on the basis of contract prices. Spot and contract prices are imperfect substitutes, like shorter and longer term interest rates. They are usually not equal but strongly related.

the United States aggravated the situation. By late 1974, however, product prices were beginning to fall, reflecting the softening of the oil market.

A number of studies have attempted to model OPEC behavior and its influence over oil prices (Gately *et al.* 1975; Cremer and Salehi-Isfahani, 2001). The key measure of effectiveness tends to lie not in the organization itself, but the extent to which it is able to reduce oil output and support prices – at times with the help of non-OPEC countries such as Norway and Mexico in 2002. This is not an easy task. First, there is a need to identify an optimal price-output combination. Optimal pricing incorporates decisions about price targets and price floors, taking into account non-OPEC shares of world oil supply and the price elasticity of demand (in the short and long term). In this regard, OPEC behaves as a residual supplier in the oil market (see Fig. 2) trading off higher prices against lower market share. While OPEC market share is based on exports, oil products are also generally sold locally at below market prices. In the early 2000s, for example, OPEC countries consumed about 18% of their output (Adelman, 2002c). There must also be a way of dividing the market between producers through quotas, since production rates are not based on marginal costs (Table 2). But this creates an inherent source of instability and the dynamics of a zero sum game (Adelman, 2002c). The gap between price and cost must be maintained through coordinated action; there must be agreement to reduce output or share consumption increases. This is complicated by information gaps, short time horizons, high discount rates, and crude differentials, creating a great deal of uncertainty in predicting OPEC behavior. Market share deal must also accommodate changes in supply and demand for different types of crude – price differentials tend to reflect differences in transport cost and quality.

Within OPEC, Saudi Arabia represents approximately one-third of total production and acts as a leading and residual producer. When smaller oil producers deviate from set quotas and sell larger quantities of oil, the burden of maintaining total output



2006/2007	
World Oil Demand	85.05
Non-OPEC Supply	50.1
OPEC NGLS	4.5
Call on OPEC Crude	30.45

Source: *Middle East Economic Survey*, 26 November 2007.

Notes: NGLs are a byproduct of natural gas and oil production. Rising NGL production boosts the supply of available crude oil by re-injection directly into crude streams, being refined into gasoline or replacing crude as feedstock for petrochemicals. The chemical properties of NGLs make them especially useful in blending with crude oil because they improve oil's quality by "lightening" it, or making it easier to refine.

MBPD = million barrels per day.

Calls on OPEC Crude are the residual demand for OPEC crude oil.

Fig. 2 OPEC Market Share (million barrels per day)

restrictions falls on large producers such as Saudi Arabia, Kuwait, and the UAE to a lesser extent.⁴ Such producers are generally slow to retaliate, because if their production levels rise, the overall price level is compromised, as suggested in part by the 1986 price

⁴ Kuwait and the UAE are also considered residual producers to a lesser extent by virtue of their low cost, large reserve production.

Table 2 OPEC Crude Oil Production and Quotas

	Monthly Production (barrels/day August 2005)	Quotas (July 2005)
Algeria	1360	894
Indonesia	880	1451
Iran	4190	4110
Iraq	2000	—
Kuwait	2500	2247
Libya	1720	1500
Nigeria	2300	2306
Qatar	820	726
Saudi Arabia	9200	9099
UAE	2550	2444
Venezuela	2550	3223
Total	30070	28000

Source: *Middle East Economic Survey*, 49, 1 October 2006. Middle East Petroleum and Economic Publications.

decline. Furthermore, when producers work together to restrict output, rates of time preference across the group matter. Higher discount rates mean that higher prices and immediate revenues are given greater weight than future sales losses. At the same time, a higher rate of discount tends to result in high spending, low savings and weak fiscal control — fiscal needs and domestic pressure also tend to drive seller behavior.

Regardless of the dynamics within OPEC, restriction of output has implications for oil market behavior. Since the 1970s, higher cost producers have tended to sell all they can produce while lower cost suppliers have tended to produce what they can sell at current prices and cut back production to match demand. OPEC members have tended to be low cost producers and suppliers of last resort; they are price makers while others are price takers. (Adelman, 1993c). Thus, unlike competitive markets, movements in oil prices tend to be self-reinforcing and accelerating rather than self-correcting. In recent years, financial markets and speculators have exacerbated this uncertainty. A number of studies point to

the similarities between oil market behavior and financial market panic, bubbles and self-fulfilling expectations (Kindleberger, 2000). This tends to be aggravated by the lack of full information on inventories and development costs, with the result that output restrictions and the resulting price increase today can easily overshoot optimal long term prices from the perspective of OPEC producers.

The second oil price shock

By the late 1970s, there were important changes underway in the oil market. OPEC crude oil price elasticity of demand was 3.4 times higher in 1978 than in 1970 while overall demand growth had declined as a result of global recession in the mid-1970s. At the same time, non-OPEC production had increased significantly between 1973 and 1978, as higher prices made investment in Alaska, Mexico and the North Sea more profitable. OPEC excess production was nearly 20% and the market was increasingly characterized by excess capacity and rising fiscal pressures (Adelman, 1996c). OPEC, as the residual global supplier, generally absorbs fluctuations in world demand and Saudi Arabia, the shock absorber within OPEC, was forced to cut production by nearly 3 mbpd between 1974 and 1975. In early 1978, spot prices were falling and there was an estimated surplus capacity of between 1 mbpd and 3 mbpd. OPEC oil exports had declined by 6% from the previous year. Following a strike by Iranian oil workers in October 1978, fears of loss of supply turned the spot market situation around – with the familiar price ratchet effect created by increases in precautionary demand on top of normal demand, which then fueled speculative demand in addition to precautionary demand and higher spot prices.

This situation was heightened by expectations of higher official OPEC prices, realized in the December 1978 OPEC meeting in which price increases of 14.5% were announced for the following year, along with proposed cuts in production and the loss of Iranian oil from world markets. A price panic erupted in

January 1979, driving spot prices to unprecedented levels; the higher prices went, the higher they were expected to go in a price ratchet effect. And the more buyers wanted to buy the less sellers wanted to sell. In October–November 1979 spot prices hovered around US\$39/barrel despite slowing demand. The outbreak of the Iran–Iraq War in September 1980 had the effect of shoring up the oil market temporarily since the combined capacity of Iran and Iraq at the time was 11 mbpd: two years later it was 6 mbpd and stayed there until 1990 (Adelman, 1996d).

Price decline of 1986

By 1981, spot prices had declined and non-OPEC producers began to cut prices in order to expand sales; further pressure was created on OPEC producers to reduce output in order to hold prices in a weakening oil market. An emergency OPEC meeting in 1982 showed growing tensions within the organization and ended with a decision to further decrease output by about 1 mbpd under a new market-sharing approach. By this time, most OPEC oil exporters were net borrowers in global financial markets and fiscal budgets were being squeezed. Following a two week OPEC meeting in March 1983 total OPEC production was reduced and explicit quotas were fixed for all but Saudi Arabia, officially designated as the “swing” or “residual” producer. In addition to lower consumption, the introduction of wide liquid markets made it more difficult to maintain above-competitive prices.⁵ Discounts by one seller quickly permeated the market and private oil companies as buyers of crude oil now aggressively searched for lower prices and OPEC producers were quite willing to offer discounts.

⁵ By the mid-1980s, the oil market was also becoming increasingly commoditized—futures market trading, particularly for heating and diesel oil had grown significantly and in crude oils by 1983. Refiners and marketers which depend on relatively thin margins between the purchase price and the resale price can lose all profit and run big losses even when relatively small price changes occur between the time they buy and resell. Hence the demand for hedging instruments to lock in the current price and insure against unexpected fluctuations (Adelman, 1996, p. 193).

By 1985, Saudi Arabia was producing at a 17-year low and its willingness to continue accommodating other producers was becoming unsustainable. With production levels at barely 2.5 mbpd, Saudi Arabia was forced to draw down an estimated US\$22 billion in foreign assets between 1983–4 and by August 1985, the government announced that it would begin to double production levels to reach current quota levels (Adelman, 1996f).

A subsequent rapid price decline was linked in part, by unsuccessful attempts to separate official crude sales from incremental “netback”⁶ deals. By the end of 1985, nearly all of Saudi output was being sold at declining spot and netback prices – with the result that prices hit a new low of US\$7.91 by May 1986 (Adelman, 1996g). After this price collapse, efforts to enforce OPEC production limits were greatly facilitated and the organization drafted and successfully implemented a new market-sharing agreement. By December 1986, it was agreed to reduce output by 5% and prices of 23 crude oil types were fixed, leaving oil prices relatively low and stable until 2001.

More recent price increases

During the latter half of the 1990s, weak growth in consumption following the East Asian crisis and growth in non-OPEC production once again contributed to declining market share for OPEC producers. In March 1999, OPEC, supported by Mexico and Norway, agreed to and implemented production cuts. Prices which averaged around US\$20 in the 1990s, were nearly three times as high (in US\$2000) after 2006. Unexpectedly high demand growth sustained the price increases along with fears of supply disruption. Many projected a new trajectory of higher oil prices based on higher demand growth from emerging markets and fears of diminishing supplies. The behavior of the oil market since the 1970s would suggest that higher prices today would create a stimulus for

⁶ FOB (Free on Board) Netback value is based on the spot product value of the barrel less refining and transport costs.

lower demand, more non-OPEC supply, both of which would work to lower prices (Adelman, 2002d). A key factor has been the rate at which non-OPEC producers increase output. In previous years, with given levels of demand, expansion in non-OPEC production has generally pushed OPEC below its current market share and prices have declined, and vice versa for rising prices.

OIL WEALTH AND DEVELOPMENT

The idea that oil revenue abundance is a “curse” has taken hold in the literature and the question of whether resource endowment is a blessing or curse is all but ubiquitous. However, from a macroeconomic perspective, there is no reason to expect a resource curse, particularly over the longer term. The “Dutch Disease” or the decline in the relative share of the tradable sector following an oil boom, is largely preventable by fiscal policy and when it does occur, is largely a short run phenomenon and therefore potentially self-correcting. The extent of the “resource curse” and its subsequent impact on growth thus has everything to do with fiscal policy (Devlin, Lewin and Ranaweera, 2008; Devlin and Lewin, 2002).

Two distinguishing characteristics of developing oil exporting countries are, that the oil industry is an enclave in the sense that it employs few domestic factors of production (importantly, labor) and exports all but a negligible part of its output; and, that the central government owns the oil and gas reserves. This means that practically all the revenue deriving from oil and gas (i.e., the revenue that is not paid to capital or labor) accrues to the central government. Hence, the impact of the oil revenues on the domestic economy depends almost entirely on fiscal policy; that is, on how fiscal policy responds to the revenues and how this in turn, influences the overall economy. There is also the related question of how oil revenues influence the behavior of the government in terms of efficiency and governance.

One of the consequences of a rapid increase in oil prices or an oil windfall is, other things equal, a real appreciation of the exchange rate and fall in competitiveness of the non-oil sectors of

the economy. The real exchange rate is a measure of an economy's competitiveness and is defined as the price of traded in terms of non-traded goods. In macroeconomic models, it is defined as the price of foreign goods relative to home-produced goods. A rising relative price of home goods, means that export demand will fall as domestically-produced goods become relatively more expensive. Thus, the oil windfall brings a rise in income, some of which will be spent on home-produced goods. This will cause some rise in home goods prices relative to import prices which are determined internationally. Employment is maintained as more home goods are consumed domestically and non-oil exports fall. Overall, consumption has risen, as the increase in imports is financed by the rise in oil revenues. Thus, the real appreciation is an intrinsic part of the absorption of the oil revenues and is unavoidable if any benefit is to be derived from the oil.

Do oil windfalls lead to lower growth? Not necessarily – there are no inherent blessings and curses in oil wealth. And lower growth in the long run does not mean that the oil is a curse (Devlin, Lewin and Ranaweera, 2008). A country can experience a windfall, which raises income and consumption in all subsequent periods, but does not produce faster growth. Consumption, the usual aggregative measure of welfare, increases because disposable income increases. Even if growth slows after the windfall, consumption may still remain higher in all periods than if the economy had not had a windfall and had grown faster. Thus, the empirical observation that resource-abundant economies tend to have lower growth, is not in itself sufficient to demonstrate that oil is a curse.

Similarly, the decline of the non-oil sector is not necessarily a curse. And sectoral shifts in output are normal in rapidly-growing economies. In addition, most economic change comes at a cost and, as argued above, there is no *a priori* reason to assume that this cost outweighs the benefits from the oil. So to what extent do oil windfalls affect a country's growth prospects? Oil revenue increases domestic disposable income and therefore should increase both

consumption and saving. So, if saving increases then so does investment (i.e., $I = S$) and, thus, the rate of growth also. However, there may be factors which inhibit this result namely:

- Since government owns the oil and is the recipient of the revenue, investment may not increase at all. All the revenue may go toward increasing consumption, albeit, government-produced goods and services. Thus, the revenue will have little, if any impact on growth.
- Government investment may be inefficient, due to poor governance and supervision and sometimes, corruption. Additionally, government investment booms following revenue windfalls strain implementation capacity and much investment is simply wasted. During the boom, aggregate demand will increase but as the boom subsides, a government now dependent on revenues may borrow to maintain spending, eventually leading to a crisis and growth collapse.
- Poor long run performance is often attributed to the decline of traditional exports due to the real appreciation described above. However, the decline in non-oil exports does not necessarily mean a decline in growth. Indeed, since aggregate demand does not decline during the boom, the fall in non-oil exports is offset (and often more than offset) by the rise in home goods (or in non-traded goods) consumption and production. Since, as noted above, the additional consumption and output often comes in the form of government goods and services, the public sector becomes the booming sector.

Thus, poor long run performance of many oil-exporters is a function of:

- *Revenue management*: The over-extension of government noted above, may lead to economy-wide inefficiencies, the deterioration of the quality of investment and increased waste, corruption and rent seeking.

- *Binge effects*: In particular, when consumption, particularly government consumption, increases disproportionately, the economy may end up being worse off. Although consumers will enjoy the boom, the lasting impression will be of the bust and the costly adjustments that it necessitates.
- *Volatility*: The foregoing argued that the real appreciation *per se* (the Dutch Disease) was not an adequate explanation for the deleterious effects of oil. However, the real exchange rate may be a factor if it is volatile. Thus, if oil revenue itself is volatile, which is likely because oil prices are volatile, then, as revenues are absorbed in the domestic economy, the turbulence will spill over to the real exchange rate leading to a boom-bust cycle. This has the effect of increasing uncertainty in the non-oil export (or traded goods sector) and so may result in an increasing risk premium on investment in that sector. This would lead to lower investment and lower growth.
- *Exhaustibility*: Oil is an exhaustible resource. Many oil producing countries face a fairly short time horizon of oil production. Therefore, even in the absence of volatility, the oil revenue is a windfall in the sense that it is transitory. Expenditure smoothing will contribute to the orderly movement of the real exchange rate; however, if the other deleterious effects of the revenues are present, then the non-oil sector will not grow as needed and as the oil nears depletion, the economy will require painful adjustment.
- *Externalities*: If there is lower technological progress associated with the decline of the tradable manufacturing sector – there may be longer lasting effects from the “resource curse.” There is some evidence suggesting that technological progress tends to be faster in traded rather than non-traded sectors, with the implication that if technological progress takes place through accumulated experience rather than exogenously, and if a large component of economic growth is due to this factor, then a temporary decline in the traded goods sector can permanently lower income per head (Neary and Van Wijnbergen, 1984).

Fiscal policy: A critical link between oil windfalls and growth prospects

The key to managing a volatile oil price is smoothing expenditures over time, which can be an antidote to the Dutch Disease. The real appreciation will not be avoided – but its volatility can be significantly reduced. By encouraging a lagged response of government spending to oil windfalls, policymakers can effectively de-link current spending levels from current oil revenues – smoothing expenditures across time. This means that some revenue will be saved to provide continued income (either from financial assets abroad or from domestic returns to capital even in the form of the implicit returns to infrastructure) for the time when oil is exhausted.

Over the medium term, the decline in competitiveness in the non-oil traded goods sector is likely inevitable and can cause short-run hardship and adjustment. However, it need not be terminal. The effect of the real appreciation can, in time, be more than offset by increases in productivity due to technological progress and investment.

Can fiscal rules help? Decisions about the level of current government spending of windfalls implies choices about weighing the welfare of current versus future generations. Are there practical guidelines for a prudent government to follow in balancing the needs of the present against those of the future? One possibility is a fiscal rule based on the “permanent income” approach whereby only the “permanent” rather than the “transitory” component of revenue may be spent. Permanent income is the maximum amount that can be spent in perpetuity. In this way, the benefits of the oil are spread out over generations and current expenditures are smoothed over time. However, there are some problems with this approach. Should the government of a developing country really expect to allocate consumption expenditure equally in perpetuity? Even if growth of the non-oil sector does not accelerate but is still positive, the current generation is still likely to be the poorest. It would be very difficult for governments to deprive current

populations of significant consumption benefits. For example, assume oil revenue begins to flow in the current period and that non-oil GDP continues to grow at, say, 3% per annum in real per capita terms. Then, in 24 years time, non-oil domestic product will have doubled. Even if the oil is exhausted at that time, the cohorts born 24 years hence will enjoy an income twice that of the current generation which has not yet begun to enjoy the benefits of the oil. Consequently, even prudent and benevolent governments may want to include the natural growth of the economy when deciding how to allocate consumption over time.

Differentiating between temporary and permanent changes in oil revenues is complicated by the fact that oil prices and production are notoriously difficult to predict. Estimates have to be continuously revised and governments find it difficult to withstand the pressure to spend as they accumulate assets during lengthy upturns. Nevertheless, the experience of oil economies suggests that it pays to err on the side of caution. Even if the permanent income targets may not be realistic, some formal restraint on expenditure will be helpful. Also, any rational budgeting process will demand that for all the difficulty involved, estimates be made of oil revenues and prices. The reference price can be revised according to agreed procedures, but it is important for governments to avoid the wishful thinking that has characterized many oil exporters in the past; namely, that high prices are permanent and low prices are transitory. For the most part, MENA countries have maintained fairly conservative estimates of oil prices for budgeting purposes (Table 3).

Oil stabilization and savings funds

What about oil funds? For many oil-exporting countries, the problems of volatility and exhaustibility have provided the rationale for saving all or some of the oil revenues in a revenue management fund. If the fund is meant to combat volatility it is often referred to as a "stabilization" fund and if it is for inter-temporal purposes it is often referred to as a "savings" fund. Some important

Table 3 MENA Budget Oil Price Assumptions (\$/barrel)

	2007	2006	2005	2004	2001
Algeria	19+	19	19	19	22
Bahrain	40	30	30	20-21	15-18
Iran	50+	34.5	19	19	20
Iraq	—	—	26	21	—
Kuwait	—	36+	21	15	15
Oman	40	32	23	21	18
Qatar	—	36	27	19	15
Saudi Arabia	—	38	25	18.5	20-21
Syria	—	35	21/25+	—	24
Yemen	—	40	—	21	22

Source: *Middle East Economic Survey*, 49, 41, 9 October 2006. Middle East Petroleum and Economic Publications.

considerations for stabilization funds are as follows: a stabilization fund cannot by itself stabilize the real exchange rate; it can only stabilize revenue (Lewin, 2006). The challenge for policymakers thus, remains how to smooth expenditure by accumulating and decumulating assets as prices (or volumes) rise and fall, which implies the existence of some sort of fund. A government that does not base current expenditure on current revenue will in fact, be using a fund. A stabilization fund is therefore something of a misnomer; the fund is the result of a stable fiscal policy rather than its cause. Furthermore, a government which plans for the day when the mineral will be depleted will adopt a similar policy. It will target a sustainable level of expenditure, which implies saving some revenue in the present to finance expenditure in the future. Thus, in both cases, a stable and sustainable fiscal policy aims to de-link expenditure from current volatile revenues and base expenditure on a stable, sustainable source of revenue, namely, the income from the fund.

An important consideration is the overall fiscal stance of the government. This is determined by the net asset accumulation of the fiscal authority such that if the fund accumulates assets while the government accumulates debt, then the two effects will offset each other. In other words, if the fund saves windfall revenues but

the fiscal authority increases expenditure by the same amount and finances it by borrowing, then the net asset position of the government will not change and the benefits of the fund will be offset completely. Inflationary financing works differently but with the same result, namely financing the increased deficit by borrowing from the monetary authority will raise domestic prices and therefore bring about the real appreciation that the fund is attempting to mitigate.

Most funds require investment in offshore assets but this does not necessarily prevent appreciation of the exchange rate. While it has the effect of immediately sterilizing capital inflows, real appreciation will occur when the fund is repatriated. However, the advantage is that this income can be relatively stable. A number of countries allow or require the fund to invest in domestic assets. Increased domestic saving can have the effect of reducing domestic interest rates and other things being equal, stimulating investment is ideally achieved by using market instruments. For example, if national debt is high, then the government could use some of the oil revenues to retire some of the debt. This will have the effect of lowering interest rates and crowding-in private investment.

Finally, an oil revenue fund can help to increase accountability in oil transactions by promoting greater transparency on the revenue side. With the right institutional checks and balances, a revenue fund can increase public scrutiny of and confidence in the revenue management regime (Lewin, 2006).

A number of MENA countries have established stabilization and savings funds to manage oil revenues. Rules for accumulation and withdrawal tend to vary across countries. Algeria, Iran and Libya, for example, have oil stabilization funds with price and/or revenue-contingent deposit and/or withdrawal rules; Kuwait was an early pioneer in the use of savings funds, where a predetermined share of oil or total revenues is deposited in the fund. While most funds tend to invest assets abroad, in Iran, approximately 50% of the balance of the stabilization fund can technically be allocated as foreign currency loans to the domestic private sector (Ossowski *et al.* 2008). In Oman, for example, the State General Reserve Fund

(SGRF) was established in 1980 under the control of the Financial Affairs and Energy Resource Council (FAERC). Rules for accumulation and withdrawal are linked with the level of oil revenues relative to the budget reference price, and the fund is intended to smooth consumption and maintain planned levels of fiscal expenditure regardless of oil price volatility. When oil revenues fall below budget assumptions, resources are withdrawn from the fund; conversely, oil revenues in excess of those assumed in the budget are accumulated in the fund. In addition, the SGRF accumulates proceeds from the sale of government assets and privatization, along with returns on the fund's investments. The SGRF is divided into two sub-accounts, with a short-term fund managing cashflow over a two-year time horizon and invested in low-risk assets. The long-term sub-fund invests in assets with higher returns over the medium and long-term. Sub-funds and portfolios are subject to monthly internal audits and investment performance reviews with monthly reports submitted to the Executive Committee under the FAERC. From the early 1980s to the 2000s, the SGRF made payments totaling US\$14 billion towards financing budget deficits (Aljashmi, 2002).

There is clearly a need for more formal modeling of the effectiveness of funds on smoothing fiscal revenue and expenditure. Time series analysis for select countries, suggests that introduction of a fund did not have a significant effect on the link between government spending and export earnings; countries which were better able to smooth government expenditure tended to establish a fund whereas establishment of a fund did not in and of itself lead to more prudent expenditure policy (Davis *et al.* 2004). Subsequent analysis using panel data for 71 countries from 1970 to 2000, suggests that funds have little impact on lessening fiscal volatility but a positive impact on domestic capital investment (Crain and Devlin, 2003). Implementing a fund appears to raise fixed capital investment as a share of GDP by nearly 3 percentage points and there is also a positive relationship between the balances held in the fund and fixed capital investment, including for MENA countries such as Oman.

More evidence is needed, however, to determine, whether such funds invested domestically enhance long run economic growth, or get diverted into unprofitable industries or infrastructure projects that add little to productivity. In addition, it is questionable how long sterilization can be achieved. In other words, what amount of foreign assets can an economy accumulate or for how long can a surplus be sustained? The benefits of this strategy for future generations depend to a large extent on maintaining the value of foreign investments. One country's surplus is only as stable as the rest of the world's deficit and if the imbalances are corrected by real currency revaluations then the accumulating countries will suffer a loss (Devlin and Lewin, 2007).

Oil windfalls and development in the MENA countries: Algeria and Kuwait

For the MENA region, there are two sets of countries with which to assess the impact of oil and natural gas on economic growth. The first includes countries such as Kuwait whose oil reserves are sufficiently large so that exhaustibility is not an immediate issue and which rely heavily on imports, including labor. In other countries such as Algeria, policymakers tend to face the challenge of managing hydrocarbon price volatility in the context of higher levels of domestic absorption, less dependence on external markets and more rigid labor markets. The following discussion surveys challenges facing policymakers in both contexts.

After Independence in 1962, Algeria began the process of building a nation-state based on oil and natural gas exports (Auty, 2001a). Production of hydrocarbons doubled between 1965 and 1970, doubled again over the next decade, doubling once again by 2000 (Aissaoui, 2001).⁷ Algeria also has significant agricultural potential, with an estimated 0.58 of cropland per capita and was an

⁷ The relative importance of oil products in Algerian hydrocarbon exports has gradually declined over time in favor of natural gas, falling from 97% in 1970, to 86% in 1980 and 59% in 1990. Auty, 2001, p. 5.

agricultural exporter before the discovery of hydrocarbons. All subsoil minerals came under the control of the state and fiscal policy became central to the development effort. Positive oil shocks in 1973 and 1979 conferred nearly 30% of non-oil GDP annually from 1974 to 1978 (Auty, 2001b). On average, central government revenues increased from roughly 30% of non-oil GDP to nearly twice that amount after the first oil price increase from 1974–8, and remained high at 57% from 1979–81. As a result, there was unparalleled growth in government expenditure and the size of the public sector (Gelb, 1984a).

Approximately four-fifths of the 1974–1978 oil windfall was allocated to public sector investment; primarily for highly capital-intensive projects. Algeria also augmented the 1974–1978 windfall revenues by foreign borrowing. Central government expenditures and net lending expanded rapidly; on average growing twice as fast as average rates for non-oil developing economies at the time. Wage and salary expenditures, in particular, expanded by 110% of the rate of increase in non-oil income (Gelb, 1984b). Similarly, fiscal subsidies and transfers also expanded nearly twice as fast as non-oil GDP. Between 1974–1978 and 1980–1981, for example, they rose about 1.6 times as quickly. Empirical analysis for the period 1980–1997 suggests that key determinants of real exchange rate movements were in fact, oil prices and public expenditure, with increases in both variables causing the real exchange rate to appreciate (Sorsa, 1999).

The negative oil shock of 1985/86 reduced terms of trade by 50% and swelled the budget deficit as expenditures increased. On a per capita basis, revenues fell from a peak of US\$1200 (in 1990 dollars) in 1981 to US\$200 in 1986, thereafter fluctuating between US\$200–US\$400 through the 1990s (Aissaoui, 2001a; Auty, 2001c). Fiscal adjustment consisted of reducing public expenditure and rationing goods, but this failed to prevent the budget deficit from expanding rapidly. The debt service ratio had doubled to 78% of exports, putting further pressure on imports, which included three-quarters of the country's food supply by the late 1980s (Nashashibi, 1998b).

Resulting stabilization measures included further cuts in public expenditure and a 40% depreciation of the exchange rate, which initially more than doubled the inflation rate to 23% by 1991. Non-oil GDP declined by 1.5% per year from 1986–1991. Through the worsening political crisis of 1991–1993, debt service remained high, the budget deficit expanded and inflationary pressures caused appreciation of the real exchange rate. Unemployment jumped by one-fifth to 24% of the workforce in 1993 (Auty, 2001c).

A balance of payments crisis in the mid-1990s contributed to another round of efforts to control government spending increases; measures to eliminate price subsidies (estimated at some 5% of GDP) were backed by a strict incomes policy agreed between the government, unions, the private sector, and SOEs. Inflation declined to 5% and the fiscal deficit, which was approaching double-digits in the early 1990s, turned into a surplus as a result of fiscal restraint and the 1999 oil price rebound. The real effective exchange rate depreciated by 30% along with efforts to liberalize trade and average tariff rates declined in the mid-1990s. However, rates of effective protection increased through 1998 particularly for food and textile products (Sorsa, 1999). Growth in the latter half of the 1990s averaged 3% per year.

Efforts to gain control over fiscal spending also included creation of a Revenue Stabilization Fund established to accumulate all hydrocarbon revenues resulting from the excess of oil prices over the reference price in each annual budget exercise. The Fund was designed to finance expenditure linked to domestic and foreign debt service as well as support government activities and promote investments. By 2001, the fund had accumulated assets totalling nearly 6% of GDP; however, the extent to which the fund has been successful in containing and smoothing fiscal spending remains a question for further analysis (Davis *et al.* 2003).

In Kuwait, on the other hand, oil revenues transformed an economy based on fishing and pearling into a high income economy albeit with a limited industrial and manufacturing base, a large and growing service sector and high dependence on imports.

Like Algeria, oil revenues pass into the hands of the government, with the result that fiscal policy management significantly influences resource allocation, capital accumulation and income distribution. However, unlike Algeria, economic expansion in the 1960s and 1970s, was balanced by the accumulation of financial assets in the General Reserve Fund and the Reserve Fund for Future Generations, established for stabilization and savings purposes. The General Reserve Fund (GRF) was created in 1960 and absorbs residual budgetary surpluses with discretionary transfers to the budget in the event of revenue shortfalls. In 1976, the Reserve Fund for Future Generations (RFFG) was established as a savings fund, which accumulates 10% of government revenues for investment in overseas financial assets. Transfers from the fund remain discretionary to the budget with approval by the National Assembly.

Through most of the 1970s, oil represented well over 60% of GDP and 90% of merchandise exports. Relative to Algeria, Kuwait had much higher rates of Gross Domestic Savings until the mid 1980s. In the mid 1970s, for example, shares of Gross Domestic Savings were roughly 60% of GDP relative to less than 40% in Algeria (World Bank WDI Database). Kuwait retained fiscal surpluses through much of this period, with oil revenue levels generally higher than total expenditures and accumulation in the RFFG and the GRF. Government expenditure levels increased steadily over the 1970s and 1980s, while revenues declined after the early 1980s. For the most part, expenditure was somewhat concentrated in current spending – mostly civil service wages and salaries, with the number of civil servants increasing from 22,000 in 1963 to 146,000 in 1980 (Richards and Waterbury, 2008). Approximately 90,000 of these were foreigners. Other large categories of spending included public procurement of goods and services, education and energy subsidies. Health expenditures were also increasing as a result of a 3.5% population growth rate. Unlike Algeria, capital expenditures were relatively lower, averaging 15% of total expenditures (1970–1989), although these expanded rapidly in the early 1980s and declined to about 25% during the mid- to late-1980s.

GDP growth was linked with increases in wholesale trade and construction along with government spending and investment in infrastructure, housing policies and other social expenditure linked with higher oil revenues and Kuwait's demographic dynamism (Al Ebraheem and Serageldin, 2008). Rising oil revenues boosted demand, including for non-tradables, raising prices for housing, communication and other services as well as asset prices including real estate. The balance of fiscal policy with regard to spending a portion of oil revenues to support consumption and infrastructure without fueling inflation was shifting towards higher spending. At the same time, excessive increases in salaries and transfers reinforced demand pressures, increasing the risks of a wage-price spiral, similar to the circumstances surrounding the most recent oil boom. Recent empirical suggests, for example, that since that latter half of the 1970s, increases in terms of trade by 10% appreciate the equilibrium real exchange rate moderately by 2% (IMF, 2008).

During the 1980s, as oil revenues declined, fiscal policy was devoted to cutting infrastructure programs and/or using investment income to smooth expenditure on capital outlays and land acquisitions. One of the most severely-affected sectors was construction. The boom-bust cycle linked with the rapid growth of speculative investments in housing and office construction had created an oversupply and a consequent collapse in real estate values when oil prices declined. Sectors which relied heavily on imported intermediate inputs also declined as a result of lower oil prices in the 1980s; This highlights the inter-linkages between oil prices, government spending and non-oil output. More recent empirical evidence suggests that a one standard deviation shock to the oil price in a Vector Autoregressive (VAR) estimation results in a significant increase in non-oil output and public spending. For GCC economies such as Kuwait, with large public spending the fiscal linkage is critical (Husain *et al.* 2008). The Kuwaiti economy thus remained heavily oriented toward oil and services with the latter being heavily dependent on government spending of oil revenues.

After the Iraqi invasion and the Gulf War, Kuwait emerged from the crisis in a much weaker fiscal position. Expenditures on wages, salaries and domestic transfers, were nearly 30% of GDP in the mid 1990s compared with 23% during the late 1980s. This upward shift in government spending was coupled with lower investment income due to significant drawdown in foreign assets, making the economy highly vulnerable to external factors (Chalk *et al.* 1997). A high degree of service orientation was linked with growing education, health, public administration, other public services and a vast system of transfers and subsidies. These included food items (rice, sugar, cooking oil, etc) as well as housing and utilities. Electricity was provided to consumers at 10% of the unit cost and petroleum products were supplied at 40% of the average world price. Other transfers included a one-time marriage grant of KD 3000 for Kuwaiti citizens.

Kuwait's financial sector had also become one of the most diversified and globally-integrated systems in the region. Relative to other MENA countries, the Kuwaiti Central Bank, established in the late 1960s, had a broad range of powers including the authority to control and influence interest rates, regulate banks and other financial institutions as well as issue, discount and trade in financial instruments. However, the financial sector was not immune to oil windfalls and boom-bust cycles, as evidenced by the 1982 Suk al-Manakh Crisis. In the early 2000s, the Kuwait Investment Authority was still divesting 800 million KD shares acquired as a result of the stock market debacle (IMF, 2001b). There was also a high and growing dependence on foreign labor, which had increased by 40% during the 1980s and reached 80% of the total labor force in the mid 2000s. In general, labor imports mitigate the impact of labor shortages and can enhance the supply of non-tradables. However, the large influx of expatriates also created demand pressures on non-tradables, especially in the real estate sectors (Hasan and Alogeel, 2008).

For both Algeria and Kuwait, oil windfalls have been an important determinant of living standards, while also contributing to high rates of government spending, real exchange rate

appreciation and expansion of non-tradables. In the case of Kuwait, inflows of foreign exchange were counterbalanced to a greater degree by a large expansion of imports (including labor) and accumulation of reserves. For both economies, fiscal adjustment in the 1980s and 1990s concentrated on bringing expenditure under control and making efforts to reverse short term structural shifts away from domestic tradable sectors (Algeria in particular) which was linked with in slow employment growth, among others.

Economic reforms introduced in the late 1990s and 2000s largely focused on measures to encourage foreign investment and enhance private employment opportunities. In Kuwait for example, this included extending social allowances to Kuwaitis working in private firms and setting quotas for private companies to hire Kuwaiti nationals. The September 2000 Law on Portfolio Foreign Investment was also approved, allowing foreigners to own and trade shares of companies listed on the Kuwait Stock Exchange, although this did not apply to banks where a single foreign investor was restricted to less than 5% ownership share. Similarly, a law on Foreign Direct Investment allowed foreigners to own 100% of Kuwaiti companies, subject to conditions determined by the Council of Ministers (IMF, 2001). The key challenge faced by both economies in managing oil windfalls was and remains linked with fiscal policy and related factor market distortions including in the labor market.

The first measure for dealing with such effects is to keep government expenditure within certain limits. This is analogous to de-linking current expenditure levels from the level of current oil prices. Recent empirical evidence further underscores this claim. In countries with a large oil sector and high levels of public spending, changes in oil prices do not have significant independent effects; rather, movements in oil prices tend to be associated with changes in the fiscal stance, which in turn, does affect the economic cycle (Husain *et al.* 2008). In the event that there is significant overshooting of the real exchange rate beyond its equilibrium level, policymakers have the following options in dealing with these

effects, including problems of labor absorption (i) devaluation, which attempts to eliminate the underlying distortion although the results will be short-lived to the extent that governments do not control spending policies that led to the real appreciation in the first place; (ii) subsidizing labor use in the traded goods sector, although this will delay needed adjustment over the longer term; (iii) lowering indirect taxes and inefficiencies, which can prevent the wage rate from rising as quickly as it otherwise would and (iv) lowering tariffs in order to reduce the price of tradables.

What is needed, is a package of reforms including across-the-board reduction and unification of tariffs, improved customs services, elimination of import controls and effectively reducing the protection afforded to domestic industry. Exports of manufactured goods would also benefit from lower protection given to imported goods. More generally, nominal devaluations in and of themselves may not be helpful, unless they can be translated into real devaluations through a curb on domestic inflation. Here again, the conduct of fiscal policy becomes critical, as most countries in the MENA region do not have very flexible exchange rates. The prevailing response has been to retain a protective regime based, in part, on tariffs or quantitative restrictions-creating additional welfare costs. Maintaining a more competitive real exchange rate by improving the efficiency of fiscal and monetary (where relevant) policy is therefore a critical priority, particularly in light of recent oil windfalls.

Recent windfalls and fiscal policy challenges

The recent oil windfall has posed significant opportunities and risks for economic management in MENA countries, depending on the extent to which policymakers choose to increase net financial wealth or spend oil revenues. MENA policy-makers have largely chosen to do both, with oil windfalls being accumulated as financial assets and used to pay down debt, along with higher spending particularly in public infrastructure projects. For the majority of

oil-exporting countries, fiscal deficits in the late 1990s became growing fiscal surpluses during the early 2000s (see Table 4). Increases in total government spending in real terms averaged 12% per year from 2000–2005, with capital spending growing faster than current spending. Approximately 50% of this increased spending occurred during 2004–5, suggesting growing perceptions

Table 4 Macroeconomic indicators for oil exporting countries

Fiscal Balances (in percent of GDP)	Average 1998–2002	2004	2006
Algeria	2.1	6.9	13.6
Bahrain	0.9	4.6	4.7
Iran	0.1	1.7	0.0
Iraq	–	–56.0	11.0
Kuwait	20.5	21.2	30.7
Libya	5.1	13.9	35.5
Oman	3.5	4.5	14.2
Qatar	2.3	16.4	9.2
Saudi Arabia	–4.3	10.0	21.0
Syria	–1.1	–4.2	–5.7
United Arab Emirates	–0.8	10.2	28.6
Current Account Balance (in percent of GDP)	Average 1998–2002	2004	2006
Algeria	7.1	13.1	24.8
Bahrain	0.1	4.2	13.8
Iran	5.1	0.9	9.2
Iraq	–	–39.4	13.4
Kuwait	19.9	30.6	52.2
Libya	12.3	22.3	45.8
Oman	1.4	2.4	12.1
Qatar	13.3	22.4	28.4
Saudi Arabia	2.1	20.8	27.9
Syria	4.0	–1.9	–2.9
United Arab Emirates	7.1	9.1	22.6

Source: IMF (2007). *Regional Economic Outlook Middle East and Central Asia*, October and IMF (2008) *Regional Economic Outlook Middle East and Central Asia*, October.

of a more long-lasting increase in oil prices⁸ (Ossowski *et al.* 2008a). Higher domestic demand also generated more inflation for most countries in the region and in a number of countries such as Syria there have been indications of real exchange rate appreciation. For oil exporting countries in the GCC, with currencies linked to the US dollar, central banks have increased reserve requirements and expanded open market operations to manage excess liquidity (see Table 5).

Improving budgetary processes

Going forward, there is a continued need to de-couple current government spending levels from current oil prices through expenditure control, but also the need for improved budgetary processes. This is also important from the perspective of aligning fiscal expenditures with development priorities, as well as minimizing opportunities for corruption. What is needed is a robust fiscal framework to aid policymakers in making tradeoffs.

In reality, however, many MENA countries tend to have highly fragmented budgetary processes which prevent effective evaluation of broad policy tradeoffs. In some cases, there are extrabudgetary funds and weak central budget coverage, which is complicated by commercial activities on the part of some ministries and agencies. Lack of consolidation of financial accounts and mixed accounting arrangements further weaken public expenditure management. Coordination of the budgetary process is made more difficult in the case of some GCC countries, by the presence of various higher committees, covering issues of public employment, construction budgets and others. Introduction of

⁸ This analysis covers the following oil-producing countries where fiscal oil revenues account for at least 20% of total fiscal revenue in 2004 namely, Algeria, Angola, Azerbaijan, Bahrain, Brunei, Cameroon, Chad, Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Indonesia, Iran, Kazakhstan, Kuwait, Libya, Mexico, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, Syria, Timor-Leste, Trinidad and Tobago, United Arab Emirates, Venezuela, Vietnam and Yemen.

Table 5 Measures of competitiveness

Inflation (Annual Change CPI)	Average 1998–2002	2004	2006
Algeria	2.7	3.6	2.5
Bahrain	-0.8	2.3	2.2
Iran	15.1	14.8	11.7
Iraq	12.7	7.8	53.2
Kuwait	1.5	1.3	3.1
Libya	-3.1	-1.0	1.4
Oman	-0.3	0.7	3.4
Qatar	1.7	6.8	11.8
Saudi Arabia	-0.7	0.6	2.3
Syria	-1.1	4.4	10.0
United Arab Emirates	2.2	5.0	9.3

Real Effective Exchange Rates CPI Based (Annual Average Percent Change Increase Indicates Appreciation)	Average 1998–2002	2004	2006
Algeria	-2.4	0.6	0.0
Bahrain	0.4	-6.7	-2.9
Iran	4.6	1.0	3.9
Iraq	—	—	—
Kuwait	1.7	-5.1	0.9
Libya	-10.3	-13.2	-0.4
Oman	-0.4	-6.1	-1.5
Qatar	2.3	-0.1	8.3
Saudi Arabia	0.1	-6.7	-0.5
Syria	-4.6	-0.2	10.6
United Arab Emirates	3.1	-2.7	5.4

Source: IMF (2007). *Regional Economic Outlook Middle East and Central Asia* and IMF (2008).

modern information systems has done little to address such issues. Budget timetables give sufficient time for preparation but in many cases, budget ceilings are not known until late in the year, resulting in a tendency to continue incremental, bottom-up approaches to budgeting. This is compounded by weak linkages between decisions about staffing and capital as well as operations and

maintenance spending at the ministry level. Where program classifications have been introduced, the result has not necessarily been effective program budgeting. Individual and line ministries tend to have competing policy objectives and deliverables which complicates formulation of program approaches. Functional classifications are generally not highly detailed and there are significant unclassified revenues and expenditures.

Enforcing spending discipline and improving allocative efficiency in budget preparation would thus benefit from a process of upstream decision-making regarding: (i) establishment of an aggregate constraint to apply to all spending, in the context of the outlook for the economy over the medium-term (see below); (ii) an indicative envelope for major new initiatives; (iii) identification of sectors/policies and programs for special focus, either for cuts or additional spending and; (iv) identification of a general rule to apply in transmitting spending limits to government departments (Brumby, 2007). From a political economy perspective, this strategic overview can provide an opportunity for also reviewing unsustainable fiscal commitments. This is particularly critical in the case of MENA countries; notably with respect to the high level of resources committed to wages and transfers.

In practice, countries have achieved a greater degree of budgetary expenditure control by holding spending fixed in nominal terms or using a specific set of deflators or adjustors to implement modest (1–2%) across-the-board cuts. Identification of spending programs which can be disbanded is another option but rarely easy to implement. The more typical scenario is for the Ministry of Finance, which generally leads such initiatives, to seek indicative proposals for 2–5% cuts from each ministry.

An extended planning period beyond the annual focus of the budget is critical. This is also necessary for achieving sustained progress on adjustment programs. In this regard, use of a medium-term expenditure framework can be helpful. The medium-term expenditure framework is a rolling, three-year framework that is updated at least annually and serves as the context for the annual budget. It is comprehensive in scope, provides reasonably

accurate estimates of revenue inflows and expenditure outflows and establishes a firm expenditure ceiling for the next budget cycle and indicative ceilings for the two following years. Budgetary ceilings and identification of government or ministry priorities can help to prevent a laundry-list type of approach to budgeting (Devlin, Lewin and Ranaweera, 2008). For individual ministries, budget ceilings force a ranking of priority investments and other resource requests. Effective ceilings also provide the basis for a review of budget proposals within the ministry and from the individual ministry to the Ministry of Finance. These priorities can be derived transparently from development plans and strategies previously agreed by the government, and ministry budget submissions should be strictly reviewed for compliance against these priorities.

Compliance with budget limits is another challenge. Ideally, governments can develop a 3–5 year time series or calendar including budget requests, budgets approved and budget utilization by individual sectors. This would enable better tracking vis a vis government priorities in budget plans as well as in execution. The use of Public Expenditure and Financial Accountability (PEFA) indicators can also be helpful of monitoring developments in fiscal balances and comparing actual expenditures to those in the originally-approved budget (Sewell, 2005). Timely and sound budget reporting is also crucial. However, there are challenges to converting spending limits into business plans and organizational allocations at sectoral or functional levels. In many countries, this can result in lack of integration between medium-term projections and the annual budget cycle. Expenditure area limits to better align accountabilities and expenditure classifications can help. In addition, capital budgeting needs to mirror the strategic planning process of the government as a whole. Examining the link between asset creation and operating activities is a critical component of strategic planning and a capital budgeting system needs to be able to cope with different demands for capital funds. This process should also consider

whether there may be opportunities to make use of greater private sector involvement (Brumby, 2007).

Internal controls guide the spending processes of governments; the challenge is to develop a simplified and streamlined system. A modern and comprehensive Financial Management Information System can help with oil revenue management and control over budget execution. Under the best circumstances, modern internal audit functions include *ex post* audits to provide management with information as to how well internal controls are performing. Ideally, external audit organizations should meet all of the international standards for external auditors set by INTOSAI (International Organization of Supreme Audit Organizations) and resolve outstanding issues of auditor independence as well as ensure the use of modern external audit techniques, staff training and provision of adequate audit resources. External auditors could then focus audits on the areas of greatest fiduciary risk within the government reporting entity.

In addition, strengthened institutions such as Public Accounts and Finance Committees hold significant promise. These groups investigate past and present government expenses and in many countries have the power to follow up on government action in response to committee recommendations and in conjunction with links to the Auditors General (Sewell, 2005). Better public procurement procedures and processes can also be a significant source of cost savings as well as limiting opportunities for corruption. International best practice requires the widespread use of international competitive tendering, the use of standardized bidding documents, contracts and selection procedures. These must be guided by transparency, the absence of conflict of interest and full disclosure of individual tender results (including the name of the successful bidder and the value of the bid).

In summary, budgeting in accordance with priorities is not just a matter of political will or favorable exogenous factors – the capacity to make decisions about tradeoffs and the quality of these decisions are also influenced by the fiscal mechanisms at hand (see Box 1).

Box 1 Ten Rules of Thumb for Improving
Allocation of Fiscal Resources In Line
With Development Priorities.

1. Establish a cabinet committee to represent the collective interest in overseeing the budget. This committee should be supported by a technical committee which ensures that only justifiable claims can be made on the agenda of the cabinet committee.
2. Define the budget entity broadly so as to ensure that all public programs and public financial exposure is adequately captured. Avoid unconstrained budgetary fragmentation mechanisms such as dual budgeting, extrabudgetary funds, earmarking, quasi-fiscal activities, etc.
3. Performance and accountability systems should be integrated with budget management concerns; assessment of performance of government chief executives should be linked with agency performance in the use of resources.
4. Apply an efficiency or productivity factor to the baselines of all agencies. A rate of 1.5% per year is recommended in the absence of empirical evidence to the contrary.
5. Institute a system of fundamental program reviews with reports communicated through the technical committee to the cabinet committee. A trigger for such reviews can be agreed at political levels and can include criteria such as requests for additional resources to produce the same level of outputs at the department level. Such criteria should also ensure that low profile programs are also incorporated.
6. Intended outcomes should be identified during budget formulation and reported to the legislature alongside the budget proposal. Proposals to change budgetary allocations should be reviewed in line with changes in intended outcomes. *Ex-post* reporting on these is required.
7. Outputs to be produced in support of achieving outcomes are also reported to decision-makers at the agency, executive and legislative levels.
8. Forward estimates (at least three years) of the cost of unchanged policies are provided to the legislature on a classification basis which is well-aligned with political and bureaucratic distributions of authority.
9. Performance reporting occurs in terms of outputs produced and is subject to *ex post* assessment through audit.
10. Cost information should be full (accrual-based) cost.

Source: Brumby (2007).

CONCLUSION

Oil-exporting countries in the MENA region face two sets of challenges related to maximizing oil wealth. First, as OPEC members, policymakers in these countries have worked to attain more stable prices by coordinating production levels and exercising restraints on OPEC production. While coordination of production decisions through OPEC has helped to create a floor under oil prices in weak oil markets, output restrictions, together with inventory build-up and fears of supply disruption have also unleashed market speculation and excessive volatility in oil prices at times, as demonstrated by the oil price shocks of 1973, and 1979.

At the same time, attempts to cushion the effects of oil price volatility in the domestic economy have tended to contribute to high and rising levels of government expenditure and public investment. And governments have frequently been the source of boom-bust cycles in economic activity as the main recipients of oil and natural gas revenues, with spillover effects on non-oil and private sector activity. Much has depended on the rate at which oil revenues have passed through to adjustments in spending and investment levels in tandem with changes in oil prices. During the 1970s, for example, higher oil prices translated into rapid increases in spending, inflation and excessive volatility in the macroeconomy. Rapid expansion in public infrastructure and government services, as in the case of Algeria and Kuwait surveyed in this chapter proved difficult to sustain when oil prices declined during the 1980s and 1990s. In some cases, government expenditure and investment decisions made during the height of the oil boom were not necessarily the most efficient production technology choices during the oil bust.

In the 2000s, preliminary evidence suggests that there is a concerted effort underway to smooth government spending levels in response to higher oil prices, in part, through the wider use of stabilization and savings funds, greater spending restraint and openness to trade. However, the fundamental challenge facing policymakers, remains one of controlling spending increases and

maximizing the efficiency of depletable fiscal revenues, through improved macroeconomic management and sound, transparent and accountable budgetary processes. Given the structure of the oil sector in MENA economies, and the importance of oil revenues in overall fiscal balances, fiscal policy will continue to serve as the hinge between oil prices and domestic output and employment. At the same time, there is a well-defined social configuration of interests and distributional consequences surrounding this function. High levels of civil service salaries, water and electricity subsidies, free health and education have helped to distribute oil revenues, as well as cushion the blow from lower real wages and incomes particularly in the 1980s and 1990. At the same time, however, rapid increases in fiscal spending, in line with high oil prices, have heightened volatility to oil price shocks. Sustainable growth prospects would thus be significantly enhanced to the extent that fiscal policy facilitates expenditure-smoothing, forward-looking planning and efficient management of government programs and service delivery. At the same time such measures could serve to enhance the transparency and accountability of fiscal policy as the conduit between oil export revenues and domestic interests.

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Water Scarcity and Agricultural Policy in the MENA Region

The MENA region is home to some of the world's great and ancient hydraulic civilizations. At the same time, per capita availability of freshwater resources in 2005 was 11% of global levels, 3% of levels in Latin America and the Caribbean and 15% of levels in East Asia and the Pacific. GDP per water use (in 2000 US\$) per cubic meter was half the level in Latin America and the Caribbean in 2002 and below levels in Sub Saharan Africa (World Bank, 2008a). In addition to dry and arid conditions, precipitation totals are highly variable and generally declining in an easterly and southerly direction away from the Mediterranean Sea. Ensuring predictable and adequate supplies of water to rural and urban populations is thus a key challenge for policy-makers in the MENA region.

This chapter explores the following questions: What are the factors contributing to water scarcity in MENA countries? Why is a large share of the region's scarce water supply allocated to agriculture? What types of policies and institutional changes have potential for improving water resource management?

WATER AND ECONOMIC GROWTH

Water can be a constraint to growth when water inputs into important processes are fixed in relation to output and only capable of increasing slowly over time. This is most likely the case in agriculture but in water-scarce environments, it can also affect industry and

some services. Constraints arise when supplies are rigidly allocated between uses over time and when water is a controlling factor in human health and productivity. All of these together imply fixed and increasing costs of water, which can have the effect of limiting production possibilities and raising costs of production in domestic output.

For many activities, however, there are always opportunities for substitution. In agriculture, for example, farmers can substitute labor for water. This is the case for countries such as Morocco, where labor requirements for horticulture (less water-intensive) are about 140 labor hours/ha relative to cereals (more water-intensive) which are 20 labor hours/ha. Vegetables also have higher revenue per ton compared with wheat. Changing cropping patterns is another alternative – returns to water use average 0.08 for wheat and 0.50 for vegetables rising to 0.75 for fruit cultivation (World Bank, 2007a). The key challenge is allowing water to be allocated to high-valued uses both within agriculture and across the economy at large.

One of the defining characteristics of MENA's water supplies is unpredictability across time and land area. Precipitation amounts are related to two major factors: proximity to the Mediterranean, Black and Caspian Seas and altitude. Throughout the region, annual rainfall is low; with few areas receiving more than 600 mm/year of precipitation and high variability (see Table 1) (Beaumont *et al.* 1988a). The greatest area of vulnerability lies at the intersection of low precipitation and high variance in precipitation (Bakour and Kolars, 1994). The topography of the MENA region is also highly variable – coastal plains merge with mountain ranges and drop to form rift valleys with some of the lowest land elevations on Earth, all within the space of a few kilometers. This affects rainfall, which can vary from more than 1000 mm/year to virtually nothing and at very short distances. The northern end of the Gaza Strip receives rain as high as 400 mm/year whereas 50 km to the south closer to the border with Egypt, rainfall is less than 250 mm/year (Brooks, 1996). However, the most important variations in rainfall are neither seasonal nor geographic but annual. In MENA countries, reliable water flow is less than 10%.

Table 1 Annual Precipitation and Variability in MENA Countries (millimeters)

	Station	Mean	Maximum	Minimum	Ratio of Maximum to Minimum
Egypt	Alexandria	169	313.6	33.2	9.45
	Port Said	63	129.6	13.0	9.97
	Cairo	22	63.4	1.5	42.27
	Asyut	5.0	25.0	0.0	—
Jordan	Amman	273	476.5	128.3	3.71
Iraq	Mosul	390	585.2	208.2	2.81
	Baghdad	151	336.0	72.3	4.65
	Are Rutbah	121	269.9	46.9	5.75
Arabian Peninsula	Bahrain	76	169.4	10.1	16.77
	Aden	39	93.0	7.6	12.24

Source: Beaumont, P, G Blake and JM Wagstaff (1988). *The Middle East: A Geographical Study*. New York: Halsted Press, p. 71.

Furthermore, in many areas, rainfall is concentrated in a short period of three to four months. This has contributed in part, to pressures to build large, surface, permanent storage capacity to ensure uninterrupted access to water supply. Efficiency costs have been high (Sadick and Barghouti, 1995). Evaporation losses are high further reducing available water use.

Due to the region's arid climate, MENA countries also suffer frequent droughts. Iran, Iraq, Jordan, Morocco, and Syria were significantly affected by droughts during the period 1998–2000, for example. In Morocco, such episodes have contributed to significant declines in GDP and increases in rural poverty. In 1994/1995, drought contributed to a 45% decline in agricultural output and a loss of 100 million work days in agricultural employment across rural landless workers and small landholders. Cereal production, which occupies a large share of rain-fed and irrigated agricultural land in the MENA region, tends to have a much higher volatility of production than in other developing regions (Shetty, 2006a).

As noted previously, low and volatile annual rainfall has contributed to a preference for building large-scale infrastructure to enhance the predictability and security of water supply across time and populations. Relative to other developing regions, MENA countries have the highest share of surface freshwater stored in reservoirs – nearly 90% relative to 10% for the global average (World Bank, 2007b). Large scale investment in water storage facilities is intended to smooth supply across seasons and reduce the risks of flooding. MENA countries have also built dams on an enormous scale – the Aswan Dam built in 1971 is one of the largest dams in the region with extensive facilities for promoting flood control, agricultural production and energy generation.

MENA countries are also unique by virtue of underground systems of water conveyance including the *qanat* of Iran and the *falajes* in the United Arab Emirates (UAE) which tunnel beneath the mountains and piedmont areas of the north and east. These gently sloping tunnels conduct water from an infiltration section beneath the water table to the ground surface by gravity flow (Beaumont *et al.* 1988b). The advantage of the *qanat* is that once constructed, it will continue to supply water for long periods with little energy input, apart from annual cleaning operations, but water discharge is uncontrollable. While some of these tunnels are more than 50 km long, the majority are between 1 and 5 km in length and commonly located in foothill regions.

Nearly two-thirds of annual renewable water resources comes from outside the region, making MENA countries highly dependent on international water bodies (see Table 2). Downstream riparians on the Euphrates (Syria, Iraq) experienced significant declines in water flow (and consequently rising salinity in irrigation networks) when Turkey diverted the flow of the Euphrates to fill the newly-constructed Ataturk Dam in the early 1990s. Given the limited domestic surface water supplies, countries in the region rely to a far greater extent on renewable water resources from international rivers than any other region of the world.

The percentage of total renewable water resources currently withdrawn by MENA countries is nearly 80% relative to less than

Table 2 River Water Available in Select MENA Countries

Estimate of Total Mean Annual Flow of Major Rivers	
Egypt	84; 18.5 billion cubic meters of this can be used by the Sudan
Turkey	80; About 40 billion cubic meters of this is in the Euphrates and the Tigris
Iraq	76; Of which only 20 to 30 billion cubic meters originates in Iraq
Syria	28; Of which 24 billion cubic meters is in the Euphrates
Iran	42; 22 billion cubic meters in Karun and Dez systems in Khuzestan

Source: Beaumont, P, G Blake and JM Wagstaff (1988), p. 84.

30% in South Asia and less than 10% in nearly every region of the world. Within the region, countries such as Bahrain, Jordan, Libya, Kuwait, Saudi Arabia, and Yemen have the lowest levels of renewable freshwater per capita and are already using more than their internal annual renewable water resources. Other countries such as Morocco, Tunisia, Iran, Lebanon, and Algeria have more adequate quantities of renewable water supplies but high variation across different parts of the country and across time. In the case of Lebanon, for example, levels of precipitation and variability are roughly similar to Portugal. Total renewable water resources per capita are higher in Egypt, Iraq, and Syria; all are highly dependent on transboundary water supplies (World Bank, 2007c).

Thus, countries in the MENA region have the lowest levels of renewable freshwater resources per capita in the world and levels are declining. Within one lifetime, per capita freshwater supplies have declined from 4000 cubic meters per year in 1950 to less than 1100 cubic meters per year and are expected to drop by half in 2050. This is significantly below global averages and baseline water requirements in household, industrial and municipal use estimated at 1700 cubic meters per capita per year (World Bank, 2007d). MENA is also one of the regions most vulnerable to global climate change, reduced precipitation and rising sea levels. In addition, the region faces rising costs of environmental degradation in the form of loss of arable land, pollution-related health problems, deteriorating coastal zones and vulnerable marine resources.

Freshwater supplies are also diminishing as countries in the MENA region draw groundwater from shallow and fossil aquifers. The region houses two types of aquifers; shallow aquifers which run along river valleys and have water tables which respond to local precipitation conditions and deep rock aquifers which can cover thousands of square kilometers, and have uncertain recharge rates, with the result that most of the water is fossil in origin and once taken out is not replenished. The Nubian Aquifer under much of North Africa, reaches a maximum thickness of 3500 m and covers 2.5 million square kilometers.

In the GCC countries such as the UAE, some fresh groundwater tends to occur close to the land surface. Recharge of groundwater occurs from rainfall through direct filtration of precipitation on gravel plains and other areas, concentration of surface runoff from the mountainous *wadi* catchments as streamflow, through shallow subsurface flows and by regional groundwater flow resulting from direct recharge to mountainous areas. It is estimated that recharge rates as a percentage of rainfall in some areas are less than 1%. In areas with low rainfall and high evaporation rates, most rainfall is either directly evaporated or is quickly lost through evapotranspiration from the soil. In addition, the quality of groundwater resources tends to be affected by factors such distance from recharge areas, permeability of sediments, depth and the occurrence of evaporate deposits such as brine or saline, generally becoming more saline with depth and with distance from the mountains.

The rate of extraction of groundwater through tubewells is considered to be sustainable if it is equal to or less than the volume periodically replenished by recharge. However, if this rate exceeds recharge rates, the groundwater is considered to be “mined” contributing to irreversible deterioration of water quality and raising pumping costs, depending on individual reservoir characteristics. This is the case for many countries in the region where extraction rates are higher than recharge rates, accelerating the deterioration of water quality as well as quantity by inducing more mineralized water into areas where groundwater levels have been lowered by

pumping. Deep drilling and pumping from greater depth also causes upward movement of mineralized water and in the long term, fresh and brackish water is deteriorating to saline water. In Yemen, Algeria, Jordan, the West Bank and Gaza, groundwater overuse is extreme. This is leading, in the case of Yemen, to abandonment of villages near Taiz where wells have dried up (Saghir *et al.* 2000). In Saudi Arabia and a number of GCC states, groundwater has been used to supply subsidized irrigated agriculture, or “greening” the desert, including in some cases, wheat production. However, in many GCC states, the declining quality of groundwater is affecting agricultural yields. As the use of mineralized groundwater for agriculture persists, this causes problems with modern irrigation equipment and soil quality, as there is a build-up of soil salinity. Insufficient leaching of soils which are irrigated with mineralized water contributes to declining yields. Continued mining of groundwater is likely to cause most springs and *falaj* systems to go permanently dry, eliminating wide areas of limited natural vegetation, along with considerable damage to existing wildlife and desert ecosystems. In Jordan, the Azraq Oasis which used to be an important resting point for migratory birds has nearly been dried up as a result of overexploited aquifers feeding the oasis (Saghir *et al.*, 2000). As residual freshwater supplies become increasingly salinized this will also affect nearly all areas of irrigation which could become increasingly saline and abandoned – leading to a return of many rural areas to desert.

MENA countries also rely increasingly on desalinated sea water or recycled brackish water to enhance water supply. In the areas of municipal and industrial use, desalination supplies more than half of all municipal water needs across MENA countries. Nearly 60% of the world’s desalination capacity is located in the region and Saudi Arabia alone houses 30% of global desalination capacity. Investments in new technology such as reverse osmosis, electro dialysis and hybrids have helped to lower the costs of desalinating water. Prices for desalinated water have decreased from US\$1.0/cubic meter in the late 1990s to nearly half that

amount today. Nearly 2% of water use across the region comes from treated wastewater which costs, on average US\$0.50/cubic meter to produce. Domestic wastewater treated to at least a secondary level to irrigate crops can also help reduce pressure on freshwater supplies. This is expensive for agricultural and irrigation purposes but can be cheaper than developing new supplies. In most of the GCC countries, treated wastewater is used to irrigate non-edible crops and landscaping. In Jordan, treated wastewater is blended with freshwater to irrigate food crops and provides about 12% of the country's irrigation water (World Bank, 2007e).

The region's scarce water supplies are also being compromised by higher levels of pollution. Discharge of sewerage and leakage from landfills, as well as the drainage from irrigation networks such as fertilizers and pesticides, are increasingly permeating water supplies. Salinity in surface water rises as a byproduct of drainage and wastewater return flows; a condition particularly acute for downstream riparians such as Iraq and Syria, which is exacerbated by low levels of water flow in the lower portion of the Euphrates River. In Lebanon, Yemen, Morocco and the West Bank and Gaza, untreated municipal and industrial sewage is released either into the sea or in the beds of *wadis* – small river beds that fill with water for only a short time during the year. In the GCC countries, approximately 50% of municipal water is discharged untreated (World Bank, 2007e).

Approximately 88% of the region's population has access to improved water sources and three-quarters have access to improved sanitation. However, for most countries in the region, levels of service are lower in rural areas with an average of 70% of those lacking access living in rural areas. Access to rural sanitation is a particular challenge and varies widely across countries in the region – from a low of approximately 14%–55% of the population in Yemen, the West Bank and Gaza, Morocco, Syria, Iraq and Egypt to more than 80% in Jordan and Algeria and nearly 100% in Libya and most GCC States. A frequent observation based on household surveys suggests that aggregate figures may be overestimated, since a large share of

rural sanitation facilities are operating at low capacity and others are completely non-functioning (World Bank, 2007f).

COMPETING USES FOR THE REGION'S SCARCE WATER-AGRICULTURE

As water quantity and quality deteriorates, competing uses for water arise from irrigation, urbanization and others. The largest of these users is agriculture, although water use in households and industry has higher economic value-added. In the MENA region, prime agricultural land with suitable soils for crop production represents less than 20% of land area and population density on agricultural land in some places is among the highest in the world (World Bank, 2008a). At present, agriculture absorbs nearly 80% of total water supplies, relative to domestic (17%) and industrial use (4%) (see Table 3).

Table 3 Water Use by Sector (% water withdrawal per sector)

	Agriculture	Domestic	Industry
Algeria	64.9	21.9	13.2
Egypt	86.4	7.8	5.9
Iran	90.9	6.8	2.3
Iraq	92.2	3.2	4.6
Jordan	75.3	20.8	4.0
Kuwait	52.3	45.5	2.3
Lebanon	66.7	32.6	0.7
Libya	83.0	14.1	2.9
Morocco	87.4	9.8	2.9
Oman	90.4	7.4	2.2
Qatar	72.4	24.1	3.5
Saudi Arabia	86.5	10.4	3.1
Syria	94.9	3.3	1.8
Tunisia	82.0	13.8	4.2
United Arab Emirates	68.3	23.0	8.7
West Bank and Gaza	53.0	45.0	2.0
Yemen	95.3	4.1	0.6

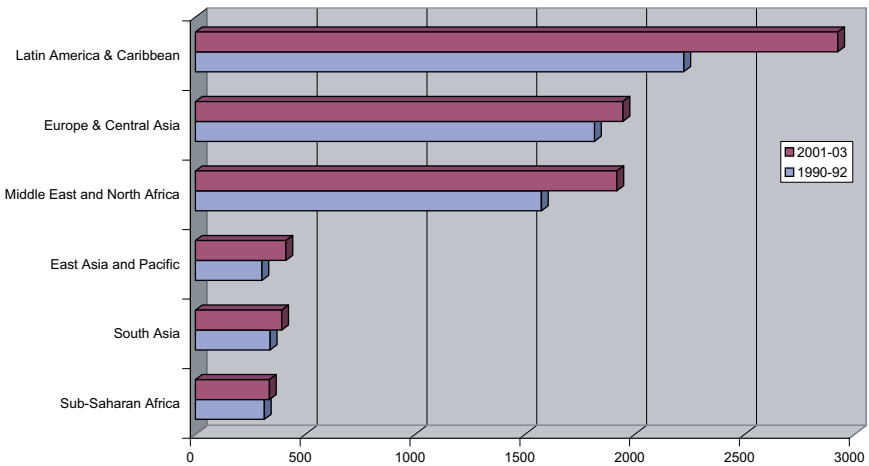
Source: World Bank (2007). *Making the Most of Scarcity: Accountability for Better Water Management in the Middle East and North Africa*. Washington DC: International Bank for Reconstruction and Development, p. 148.

While this varies somewhat across countries in the region, at a minimum, agriculture receives at least half of total water supply, including in highly urbanized countries such as Bahrain, Kuwait, and Lebanon and more than 60% of total water supply in one of the highest per capita economies in the region – Qatar. Conversely, industrial water use averages about 4% and is slightly higher in the UAE, Algeria, and Egypt. Household and domestic consumption is significantly higher than the regional average in many of the GCC states and the West Bank and Gaza.

Management of water resources in agriculture in MENA countries has tended to rely heavily on multi-purpose water schemes in the form of construction of dams to provide irrigation water, hydroelectric generation and flood control. Irrigated networks, which dominate agricultural water use across the region, have expanded continuously. Today, countries such as Iran have the world's fifth largest area of irrigated land. On peak days, 1000 hectares (ha) of irrigation can consume the equivalent amount of water as a city of 1 million people (World Bank, 2007f). Irrigated water has typically been provided nearly free of charge, with only a few countries such as Tunisia, Morocco and Jordan increasing water tariffs and introducing volumetric pricing (based on water use and not land area). At the same time, groundwater can be pumped at very low costs from shallow aquifers and while farmers have drilled wells and are pumping groundwater at their own expense – this activity is facilitated by credit subsidies, as well as low charges on diesel fuel and/or electricity. Most farmers do not pay a resource charge for groundwater use.

High agricultural use of water is related to the role of agriculture in MENA countries as an important productive and employment sector and the tendency for agricultural policy to benefit protected interests. In the 1990s, for example, agriculture and food processing sectors accounted for 22% of value added 8% of total export revenues, 8% of expenditure on imports and 35% of final consumption by households in Tunisia, a relatively industrialized and service-based economy (Chemingui and Dessus, 2001). For the region as a whole, agriculture employs nearly one-quarter of the

total work force and significantly higher shares in Egypt, Morocco and Yemen. This is disproportionately high, relative to agriculture's share of GDP estimated at 14% and remained relatively constant between 1993 and 2003 while its share of employment declined modestly from 34% to 28%. Agriculture has frequently served as the employer of last resort. In Tunisia, for example, the average farmer is 53-years old and approximately 88% of the agricultural labor force had not gone beyond a primary education level in 1995. Agriculture is also an important "buffer" sector which helps to absorb the effects of external shocks. (Devlin, 2003). In the West Bank and Gaza, for example, the percentage of population engaged in part-time farming rose from 16.8% to nearly 33% of the population at the onset of the second Intifada (World Bank, 2008b). Finally, many of the new jobs created in the MENA region over the last four years have been in agriculture — between 2000 and 2005, the agricultural sector provided about half of new jobs in Iran; two-fifths in Egypt and Morocco, and one-fifth in Algeria (World Bank, 2007h). Agricultural value added per worker lags behind middle-income regions such as Latin America and the Caribbean (see Fig. 1).



Source: World Bank (2007). *World Development Indicators*, Washington DC: International Bank for Reconstruction and Development, p. 136.

Fig. 1 Agricultural Value Added Per Worker (2000 US\$)

In Yemen and Egypt, agricultural activities have also been influenced by regional labor markets, with growth in agricultural wages linked to labor supply shortages and high rates of emigration. In Yemen, following Independence in 1962 and several years of civil war, the country moved forward on an agriculturally-based growth strategy. Nearly 90% of the population earned its livelihood from agriculture or non-farm rural activities-with production of different crops in highland, *wadi*, coastal plain and arid regions (Cohen and Lewis, 1979). In the highland areas, production of sorghum, wheat, fruits and lentils were predominant while water flow in the *wadi* lands permitted cultivation of cereals, sugar cane, and tropical fruits. Dates, tobacco and cotton were grown in the more arid regions of the Tihama plain along the coast. Agriculture contributed an estimated 70% of GNP in the 1970s and cultivation was largely carried out on small farms with traditional production methods and a relatively low level of concentration in land ownership. Despite expansion in irrigated areas, much of the cultivation was dry-farming, together with traditional, but very sophisticated techniques for capturing runoff rainwater in the form of terraced hillsides. These structures channel water from field to field in the *wadi* areas with very little efficiency losses.

By the 1970s, however, food production began to lag behind rapid growth in population, exacerbated by recurring periods of drought. This situation was heightened by the large emigration of unskilled rural labor to Saudi Arabia during the height of the oil and construction boom; estimated at nearly half of the male labor force (Cohen and Lewis, 1979a). Wage earnings for unskilled workers were estimated to have been four times the level prevailing in Yemen, with estimates of total remittances at more than US\$1 billion in 1977. This inflow resulted in a rapid growth in annual per capita income from US\$80 to more than US\$500, with the money supply increasing by a factor of more than 12. Remittances also contributed to shifts in patterns of social and economic infrastructure. Women began to play a more significant role in agriculture and return migrants introduced new skills, in addition to resources.

Local transportation systems, consumption patterns and trade all changed as a result.

As labor migrated, large areas of agricultural land, particularly marginal cultivated areas in the Tihama region, began to fall out of use, resulting in soil erosion as the maintenance of terraced areas was neglected. Production became more specialized from essential food crops to luxury crops in the form of *qat*,¹ along with growing levels of food imports. A very sophisticated and effective marketing system emerged for *qat*, while local producers of food crops faced greater competition from imported food grains which could be sold at lower cost than those produced domestically. In the latter half of the 1970s, local grocery stores in Sana'a were selling frozen chickens from France and in rural areas, there were fruit imports from the United States (Cohen and Lewis, 1979). This was combined with relatively low elasticity of demand for traditional crops such as sorghum and millet, with families typically producing only for their own needs and government efforts to increase output of cereals being marginally effective.

More generally, agricultural production in the MENA region is characterized by dry area agricultural systems which are dominated by cereal farming, with small ruminant livestock alongside an irrigated farming system which consists of both large scale and small-scale cultivation. Production in irrigated areas tends to specialize in cash crops such as cotton and sugar beet, vegetables and other crops such as fruit trees and fodder.

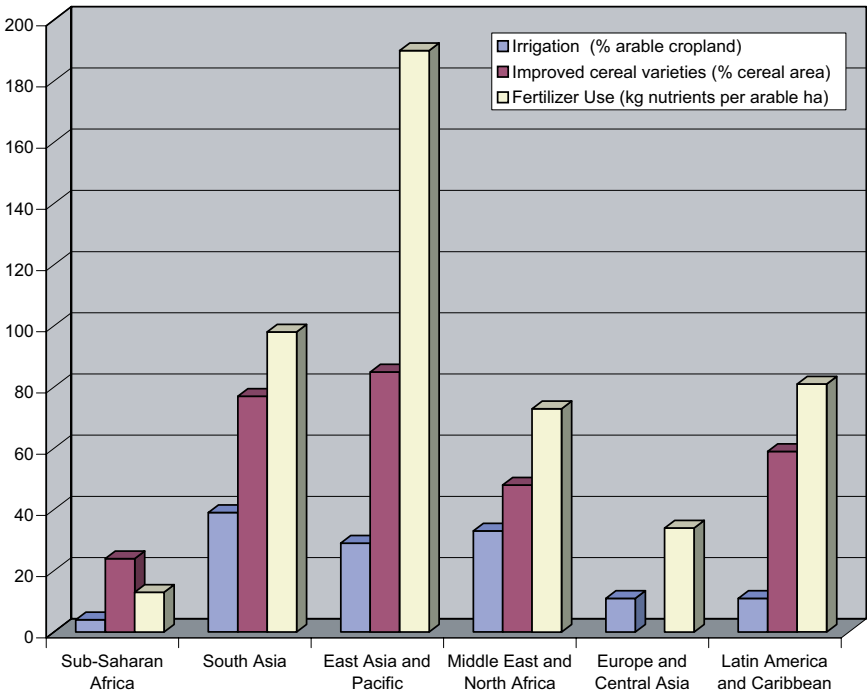
Transhumant nomadism has been an important form of livestock production, particularly in semi-arid climates. Various horizontal and vertical migration patterns were linked with seasonal variations in grazing and drinking water as well as the type of animal herded. Herders typically had an agricultural base with migratory movements of varying distances – from short distances to over 1000 km as in the case of the Bakhtiari of Iran. Rights of passage and grazing were typically held along migratory routes

¹ Qat is a mild narcotic whose leaves are chewed to produce a sense of euphoria and alertness.

which were at times anchored by permanent settlements at either ends of the route. Economic and social units consisted of small family groups, each moving with a group of five or six others, but in no particularly stable or permanent association. At the end of the route, groups typically disbanded. Spatial movements of these groups tended to follow traditional routes, often through tribal areas, which were territories with well-recognized, flexible limits where a tribe had traditional rights at certain times of the year. These boundaries and spatial patterns were only disrupted in dire emergencies and under these circumstances, determined by traditional agreements and alliances. Typical herding patterns also included overstocking herds in good years (with attendant risks of overgrazing) as insurance against high variability linked with drought, animal diseases and unseasonably cold weather, all of which could reduce herd size by as much as 50% in a single year. A minimum number of animals was needed to support each group (i.e. 25–60 sheep and goats) and there was generally little to fall back on if a family lost its minimum size herd and members were forced into work as day laborers in the villages (Beaumont *et al.*, 1988d).

Land tenure is relatively skewed in a number of MENA countries. In Morocco, for example, 69% of rural farmers have less than 5 hectares (ha) and own approximately 23% of the land, while less than 1% of farmers have 50 ha or more and own 15% of the land (World Bank, 2002). In addition, land holdings have tended to be somewhat uneven and are larger in irrigated as opposed to rain-fed areas.

Overall, public spending on agriculture as a share of total public spending averages 7% in and 10% of agricultural GDP (World Bank, 2008c). In addition, agricultural policy has often been biased toward subsidies for private goods (fertilizer, credit) and making socially regressive transfers (see Fig. 2). These tend to be a less productive use of public resources than investments in core public goods such as agricultural research, rural infrastructure, education and health. In many cases, the bias toward private



Source: World Bank (2008h). Agriculture for Development. *World Development Report*, Washington DC: International Bank for Reconstruction and Development, p. 52.

Fig. 2 Inputs to Agricultural Production (2002)

goods has tended to increase as per capita GDP rises (World Bank, 2008b).

Furthermore, public spending in agriculture has tended to benefit large farmers in irrigated areas. Between 1968 and 1972, for example, some 43% of Morocco's Development Plan was devoted to the agricultural sector and roughly two-thirds of resources were devoted to the construction of dams and irrigation systems (Tuluy and Salinger, 1991). Irrigated land area grew by nearly 18,000 ha per year and only about one-fifth of the rain-fed areas received assistance under the plan. As a result, a two-tiered system emerged with small farms in rain-fed areas using low levels of mechanization

and limited application of high-yielding seed varieties and fertilizers. Large farms in high rainfall and irrigated areas, on the other hand, used tractors, fertilizer and seeds more extensively – approximately 45%–50% of the total fertilizer consumption occurred in the irrigated subsector (Tuluy and Salinger, 1991a).

AGRICULTURAL POLICY IN MENA

Most agricultural policies in the region consisted of large public investments in irrigation with price supports and subsidized inputs, including credit and marketing control. In countries such as Morocco, governments attempted to de-link domestic prices of important agricultural commodities from international prices and producer prices from consumer prices (Tuluy and Salinger, 1991). In the 1950s and 1960s for example, the emphasis on agricultural policy was largely focused on agrarian reform, the creation of cooperatives and making political gains for newly-independent regimes through land reform. This was combined with price controls, improved marketing and credit facilities, higher fertilizer use and expansion of cultivable land. Investment in agriculture shifted to the public sector, with public shares of investment ranging from a low of 50% in Jordan to 91% in Iraq from 1976–1980 (Tuma, 1990). By the 1970s, with high oil windfalls, agriculture and tradable sectors in general languished and food imports increased dramatically. In the 1980s, there was a growing emphasis on improving market-orientation in agriculture through reform of pricing, changing crop composition, and experiments with elements of the Green Revolution.

In Egypt, agricultural policy objectives established in the 1960s and 1970s aimed at two goals, feeding urban and industrial sectors and earning foreign exchange to finance imports. As a result, prices of farm inputs and outputs were manipulated; marketing was conducted through farm cooperatives and farmers were at times, subsidized and at other times, taxed as a means of stabilizing prices and making food items affordable to urban workers. During the 1960s and 1970s, farmers were required to deliver a certain quota

of output to the cooperative at administered prices. These prices were approximately 70% of world prices; with similar margins applying for cotton, sugar cane, and other crops. This tax levied on farmers was then offset to some extent by subsidies of inputs, although this tended to vary across crops and farmers (Tuma, 1990a). Subsidies to some groups were at times, financed by taxes on others. Cotton, sugar cane, and fruit tended to receive more favorable treatment, as opposed to wheat, maize, and other food crops. Irrigation water was largely provided free of charge to most farmers; although larger farmers and large agricultural enterprises, both state and privately-owned, tended to benefit to a greater extent.

Fertilizer prices in the 1960s and 1970s were tied to world prices; they were effectively subsidized or taxed depending on the gap between local and world prices. From 1965–1973, it is estimated that Egyptian farmers paid up to 87% more than world market prices for fertilizers, but after 1979, they paid between 40% and 60% of world fertilizer prices (Adams, 1986; Tuma, 1990a). Most farmers enjoyed credit subsidies; although these were generally reserved for the cultivation of certain commodities; namely cash crops which included cotton, sugar cane, and fruit. Producers of wheat, maize, and other food crops generally relied on village money-lenders for credit, which ultimately helped to discourage food production. Other products were more difficult to finance through cooperative credit including livestock, although meat and milk prices were subsidized resulting in high levels of demand. Thus, a number of policy measures had conflicting objectives and influences.

Government marketing and pricing policies also extended to the processing of agricultural products such as sugar beet. In the case of Morocco, for example, during the 1990s, sugar beets were processed either at integrated refineries which produced white granulated sugar directly or at raw sugar mills which produced raw beet sugar, subsequently refined by domestic refineries. Processing units had government majority shareholding and/or were owned by large private firms. In the 1990s, one private sugar refinery represented about 90% of national capacity and was the sole producer

of sugar loaf, representing about 50% of total sugar consumption (Thoyer, 1995).

The Moroccan sugar industry had emerged during the 1960s as a result of large public investments in irrigation and processing plants and has been promoted by high levels of protection and market controls. One objective of this policy, among others, was import substitution, since sugar and soft wheat imports constituted 10% of import value between 1975 and 1984 (Tuluy and Salinger, 1991b). By 1990, annual production was providing 65% of domestic demand (Thoyer, 1995a). A complex administrative network managed pricing and marketing systems, with the consumer price of sugar fixed on the basis of social, economic, and budgetary factors, as opposed to reflecting costs of production or changes in the world price of sugar. Sugar beet production was concentrated in five large-scale irrigation schemes supervised by public irrigation agencies, which also took responsibility for input supply, credit provision, scheduling of planting and harvesting and delivery of sugar crops to processing units. To ensure regular delivery of raw material to sugar processing units, legislation was introduced under which farmers benefiting from irrigation infrastructure were required to observe compulsory cropping patterns designed and enforced by public irrigation agencies.

Sugar crop producers received a guaranteed uniform price determined by an inter-ministerial commission at the beginning of the growing season. Prices from processing units and sugar mills in the late 1980s, however, were based on average costs, with the result that some producers were taxed and others were subsidized. Among small farmers in regions which were effectively taxed, there was a tendency to evade obligations on sugar crops by diverting water and inputs to other crops – resulting in low yields and low capacity use in processing. Total capacity use of the sugar industry never exceeded 70% and was as low as 50% in some irrigation schemes (Thoyer, 1995b). Both raw and refined sugar enjoyed high rates of tariff protection, administered through the National Tea and Sugar Office, with a variable levy system to control the domestic price of imported sugar. Reference prices for imported raw sugar and imported refined sugar were generally

calculated so as to be higher than average unit costs of the least efficient processing units, resulting in what has been characterized as two interlinked oligopolistic markets; the upstream market for raw sugar and the downstream market for refined sugar. Empirical analysis of the net effects of government intervention in sugar beets suggests that during the 1990s, Morocco's comparative advantage in sugar beet production was penalized by high milling and refining costs which resulted in significant domestic resource costs (Tuluy and Salinger, 1991c). A reform program introduced during the 1980s, aimed at increasing investment and rehabilitating sugar mills, as well as expanding irrigated areas, deregulating pricing through gradual phasing out of subsidies and eliminating price controls. The results, however, were slow in implementation; deregulation was stalled by long processes of negotiation between growers and buyers, consumer subsidies were not removed and tariff protection remained high through the mid-1990s (Thoyer, 1995).

In GCC countries such as Saudi Arabia, generous price supports, input subsidies and other transfers, along with the expansion of irrigation through groundwater use, contributed to high agricultural growth from 1985 to 1991. Wheat production peaked at 4.1 million tons in 1992 and Saudi Arabia became a wheat exporter, with wheat exports reaching 2.5 million tons in 1992/1993. The cost of producing wheat in Saudi Arabia has been estimated at about four to six times the cost of wheat in the world market, without accounting for the opportunity cost of using scarce water supplies (Abderrahman, 2002; Shetty, 2006b).

In general, agricultural policies in MENA countries have tried to achieve too many, at times conflicting objectives with too few instruments. Policy targets have included enhancing foreign exchange earnings, providing employment while accommodating rural and industrial elite interests. Agricultural production has also been affected by economy-wide policies and distortions in the form of: (i) holding down agricultural prices, particularly basic food crops, to favor the industrial and food processing sectors; (ii) industrial bias linked with import substitution industrialization strategies and/or the tendency to concentrate investment in industry, along with tax incentives and subsidies to

industry; (iii) overvalued exchange rates, keeping the prices of industrial inputs and conversely agricultural exports low; (iv) tariff and quota protection for industry, which raised the price of imported fertilizers, seeds, etc and (v) higher spending in urban areas on education, training, medical facilities, housing, infrastructure, and others.

Policies to improve water resource management must be cognizant of these realities. Price controls and subsidies for various producers have been applied alongside subsidies for consumers and transfers to politically-influential farmers and agro-industrialists. This is underscored by economy-wide distortions in the form of tariff production and energy subsidies, all of which have created perverse incentives for high and sustained water use in agriculture (see Table 4). The prevalence of a significant proportion of old and new employment possibilities in the agricultural sector are also

Table 4 Perverse Incentives for Irrigation

	Barriers to Imports?	Domestic Price Support?	Subsidized Credit?	Energy Subsidies?
Algeria	Yes	Yes	Yes	Yes
Bahrain	No	No	Yes	Yes
Egypt	Yes	Yes	Yes	Yes
Iran	Yes	Yes	Yes	Yes
Iraq	No	Yes	Yes	Yes
Jordan	Yes	Yes	Yes	Yes
Kuwait	No	No	Yes	Yes
Lebanon	Yes	Yes	No	Yes
Morocco	Yes	Yes	No	No
Oman	No	Yes	Yes	Yes
Qatar	No	No	Yes	Yes
Saudi Arabia	Yes	Yes	Yes	Yes
Syria	Yes	Yes	Yes	Yes
Tunisia	Yes	Yes	Yes	No
United Arab Emirates	No	Yes	Yes	No
West Bank and Gaza	Yes	No	No	No
Yemen	Yes	Yes	Yes	Yes

Source: World Bank (2007), p. 13.

important considerations for policy-makers. Concerns for food security are also rising, given recent increase in commodity prices (see Box 1).

Box 1 Food Security for GCC Countries

The aim of a food security policy is to provide a secure flow of affordable food to citizens. From 2005–8, for example, the price of maize increased by 80%; wheat by 70% and rice by 25%. (Ivanic and Martin, 2008). In countries such as the GCC states which are highly dependent on food imports, such price increases have led to growing consideration of new approaches to food security. These include enhanced overseas investments, improving trade relationships and in some cases, building strategic reserves of key commodities. In developing an appropriate strategy to address the issue of food security, policymakers would benefit from a clear set of rules including; (i) defining a tolerable level of price variability; (ii) defining respective roles of domestic production, imports and reserves as well as the more general role envisioned for the private sector; (iii) minimizing distortions to long run market equilibrium prices defined as border prices; (iv) utilizing public resources in activities offering high returns such as market development; (v) protecting the interests of vulnerable households and ensuring that any remaining subsidies are directed at household food security; and (vi) minimizing the risks of unexpected impacts of fiscal policy (World Bank, 2005a). Instruments to address these objectives are necessarily different.

To begin with, there is a need to define a minimum nutrition consumption bundle consisting of basis oils, proteins and carbohydrates as well as water as the basis of any food security strategy. Where policymakers have elected to build strategic reserves of key food commodities, the aim should be to stabilize nutrition not the prices of individual food commodities. Where local production is economically rational, a survey of local production and food supply industries from the vantage point of supplying minimum nutritional requirements can help to identify areas for new investment. Strategic reserves of key commodities can be managed jointly by public and private sectors with the latter better able to assess issues of storage capacity and inventory rotation. There needs to be strong public oversight and rules for release of the stocks need to be defined by the public entity and based on truly rare events so as not to impede the development of private

(Continued)

Box 1 (*Cont'd*)

insurance markets. Public policy is critical with regard to demand management including appropriate income-based or self-targeting schemes. Overall institutional coordination and ensuring an appropriate entity responsible for managing implementation of a food security strategy are equally important, as is an adequate framework for monitoring and evaluation of strategy implementation. Finally, well-functioning logistics and expedited import clearance processes are necessary to smooth the flow of commodities across borders. Risk-proofing commodity supply chains can also offer some insurance against supply disruptions. Finally, a public awareness and communications campaign is needed to encourage households to store minimum supplies and self-insure in the event of a crisis as well as to manage expectations in the event of a supply disruption.

IMPROVING WATER USE AND RAISING AGRICULTURAL PRODUCTIVITY

One of the main mechanisms to improve the use of water in MENA countries at a more aggregated level, is through a combination of trade and agricultural policy reforms. Over the last two decades, net agricultural imports have ranged between US\$16 and US\$20 billion for MENA countries and the region remains the largest grain-importing region in the world (Shetty, 2006c). On average, this represents one-third of cereal needs at the country level. Exports are dominated by fruits and vegetables, cotton, pulses and live animals, largely to EU and neighboring countries, although they are subject to a number of requirements related to product, season, country of origin and duty-free seasonal tariff-quotas. With regard to membership in the WTO, most MENA countries were able to meet Uruguay Round Agreement commitments on agriculture, although a large number of countries applied bound tariff rates at relatively high levels. In 1997 for example, Morocco and Tunisia applied MFN tariffs on agricultural products which were 49% and 35%, respectively (Shetty, 2006c).

Most studies of the impact of multilateral trade liberalization on agriculture indicate that reduced protection in agricultural products and better market access are likely to have favorable effects on average, for MENA countries, although there are clear winners and losers. MENA countries are competitive producers of olives, citrus and other commodities and benefit from an early harvest season relative to European markets. Producers of fruits and vegetables tend to gain, while those involved in field crop and livestock activities lose from trade liberalization efforts (Chaherli, 2002). For the most part, farmers in mixed farming areas (highland, rainfed, and dryland) as well as those in pastoral systems, will likely incur the highest risks from trade liberalization. This can be offset in large measure by the expansion of non-farm employment opportunities. In the case of Tunisia, for example, studies indicate that while the economy as a whole tends to be better off from agricultural trade liberalization, cereal producers, in particular are affected disproportionately, whereas fruit and vegetable production under irrigated conditions remains flexible and competitive. Tree crops emerge as a viable solution in arid and semi-arid zones where they remain competitive. Adjustment occurs as production is shifted from subsistence crops to higher-value cash crops and as rural labor shifts into non-farm activities and non-agricultural sectors. (Shetty, 2006a; World Bank, 2001).

Within the agricultural sector, a re-analysis is needed which surveys water use in terms of the economic value of agricultural production. Reducing water demand and focusing on marketable crops which show a high return relative to the costs of water used is a critical priority. Expansion of new agricultural land can be assessed on prior analysis of and identification of segments of agricultural activity which are economically viable and then relating this to current water resources. A complete geographical survey of existing and potential new discoveries of water resources could also be helpful. In the case of the GCC countries, the sustainability of agricultural activity can be assessed in terms of the costs of

supplying increasing amounts of desalinated water to agriculture as alternative sources are becoming increasingly limited. Better zoning and regulation of groundwater is needed to manage access, along with tariff and water pricing policies which relate the quality of groundwater to prices charged for desalinated water. There is also the possibility in some countries, of developing a national water grid which would enable water to be transferred across areas in the event of emergencies and/or reallocation of economically feasible new reserves to areas of peak demand. Such a grid could also support conjunctive use management which involves, for example, using fresh groundwater to supplement desalinated water in municipal and industrial water supplies in the summer and brackish groundwater to supplement recycled wastewater during the winter period of low wastewater production. Such methods allow for lower costs of using desalinated water during summer months and movement of excess supplies of desalinated water in winter to recharge aquifers. Water banking or storing water produced by overcapacity or reduced seasonal demand in surface or groundwater reservoirs is another area of potential water savings from existing uses.

Pricing policies for desalinated water which are linked with cost recovery may also have an impact on regulating water demand. There is a need for harmonized pricing policies for water use in agriculture and for all urban water consumers according to conservation objectives. Fully metering supplies and consistently collecting water charges can have an immediate impact on lowering consumption. Groundwater in particular, needs to have an opportunity cost similar to desalinated water so that only the most profitable farmers would choose to continue in agriculture. However, agricultural subsidies paid to farmers to keep the level of farm income from falling below other sectors, have been important instruments of agricultural policy in many GCC and other MENA countries. For many farmers, the cost of drilling wells, irrigation equipment and land preparation have been provided free of charge and output has been highly subsidized. Moving forward, what is required in many countries, is a

re-orientation of such policy efforts to focus on activities which improve water use efficiency and promote crops and activities which have the highest returns to water and place the least demands on scarce water resources. This may require buying back water rights from farmers and encouraging the development of water markets to reduce groundwater extraction to sustainable levels. Enhanced private investment in operation and maintenance of water utilities, including desalination and wastewater treatment plants, is also important. Coordination is required to develop an integrated operation of desalinated, wastewater and groundwater supplies to optimize supplies at least cost and enhance security of access to water. The case of Singapore is an interesting example of multiple coordinating efforts to improve water resource management (see Box 2).

Box 2 Water Resource Management in Singapore

Singapore has a water demand of approximately 1.4 million cubic meters daily with domestic resources sufficient to meet about 50% of demand. It relies heavily on water imports from neighboring Malaysia, creating a source of potential vulnerability and a strong catalyst for improving water resource management. An important feature of Singapore's success has been to look at water supply sources in their totality. During the 1980s and 1990s, Singapore implemented a comprehensive environmental management system, including water supply, control of water pollution, establishment of well-planned industrial estates and introduction of a world class urban sanitation system. Several elements of this approach include:

Political will: The Singapore Government has been the key driver of successful water policy, strategy, planning and implementation, including support at the level of the Prime Minister for the Four National Taps Strategy.

Institutional integration and coordination: A newly-established Ministry of Environment and Water Resources (MOEWR) has full responsibility for water-related affairs including policy formation, planning and infrastructure,

(Continued)

Box 2 (Cont'd)

and eliminating administrative barriers to improved water resource management. Previously, water supply and sewage treatment were managed separately by different institutions. As a result of institutional reforms in the 2000s, the Public Utility Board (PUB) under the MOEWR is now the main institution responsible for comprehensive water-related affairs in Singapore with overall responsibility for managing the entire water cycle including protection and expansion of water sources, stormwater management, desalination, demand management, community-driven programs, catchment management and outsourcing to private sector operators.

Regulations and enforcement: A comprehensive environmental legislative system and strict enforcement have also played a role. These regulations mandate *inter alia*, allowable limits for effluent and waterways, require all supplies of water to be provided through metering, prohibit installation of non-water-saving appliances and require prior approval to draw water from reservoirs and streams.

Integrated land use planning: The Singapore Land Authority ensures that land-use planning is linked with water resource management while the Urban Redevelopment Authority (URA) plays a leading role in national planning and industrial estate development where water is an important element. Rainwater collection is facilitated by close liaison with several government bodies including the URA, the Housing and Development Board, the National Environmental Agency, the Land Transport Authority and others. Singapore has also dedicated 50% of its land area for catchment in addition to implementing urban stormwater pond collection systems.

Economic instruments: Large public investments in water infrastructure have included upgrading and rehabilitation as well as building new facilities and plants. Increasing block rate water tariff structures are applied with fees increasing up to approximately S\$ 1.4/cubic meter when water use exceeds 40 cubic meters per month. The poor, who cannot afford to pay receive a targeted subsidy as opposed to providing subsidized water to all for the first 20–30 cubic meters of household water consumption. Commercial and industrial users do not subsidize domestic users and households using more than 40 cubic meters per month pay the highest rates. In addition, a Water Conservation Tax is levied by the Government to reinforce water

(Continued)

Box 2 (Cont'd)

conservation concerns, while sanitary appliance fees and waterborne fees are statutory charges payable to the PUB to offset the cost of treating used water and for the maintenance of the public sewage system. Tax incentives encourage water recycling and water-saving projects; water audits are undertaken on a regular basis to ensure appropriate water consumption and reduce leakages or unaccounted for water.

Penalties: The application of fines is rigorously enforced—with maximum fines for violating acceptable effluent limits at approximately S\$ 50,000 for the first conviction and a maximum penalty of roughly S\$ 100,000 for second and subsequent violations.

Private investment: Encouragement of private participation in urban sanitation infrastructure has become a core element of Singapore's water policy. NEWater or treated wastewater application is significant and NEWater factories were built through design-to-build arrangements with the private sector. In 2005, the PUB entered into a 20-year NEWater agreement with a local company to design, build, own and operate an additional NEWater Factory.

Public awareness: Specialized campaigns, use of the education system and a Clean and Green Week are all designed to raise public awareness about the environment and water management. Typically such campaigns precede introduction of an environmental or public health law which is then followed up with strict enforcement.

New technology: The development of membrane technology, deep tunnel sewage systems and others, demonstrates concerted efforts to develop new technologies for improved water resource management. In the case of NEWater development, pilot scale experiments and demonstration projects in membrane technology were developed to recover good quality water from treated effluent of municipal sludge wastewater. An international panel of experts provided independent advice on the program which developed into large-scale production and supply of NEWater directly to industries and the commercial sector for direct, non-potable use. Introduction of reverse osmosis technology in desalination was also launched in 2005.

Source: World Bank (2006). Dealing with Water Scarcity in Singapore: Institutions, Strategies and Enforcement; China: Addressing Water Scarcity Background Paper No. 4 and Tortajada, C (2006). Water Management in Singapore. *Water Resources Development*, 22(2), 227–240.

Targeting irrigation at maximum yield per unit of land is generally the best policy for improving efficiency of water use in irrigated agriculture. The yield of most crops is highly responsive to small variations in water supply and there are other factors to consider such as labor and fertilizer. This entails a combination of improved irrigation management options, better crop selection, better seed varieties and higher skill accumulation for farmers. In Egypt, studies have shown that introducing cost recovery fees covering O&M costs would be equivalent to 3–4% of total costs and 3% of net farm revenue and thus are well within the farmer's capacity to pay (Shetty, 2006d). Technology can also help – through improvements in irrigation techniques and the use of remote sensing technologies and satellite images, which are used in many countries for water resource planning and monitoring.

Improved water efficiency use in agriculture can also be encouraged through better rural resource management overall. The price elasticity of agricultural output is related to a host of factors in addition to price signals (Chibber, 1988). The ability of farmers to respond to price signals thus requires complementary circumstances – including well-functioning transport infrastructure and access to agricultural inputs. In fact, the supply elasticity of agriculture with respect to non-price factors such as the provision of public goods and services, is much higher than that with respect to price, particularly in developing countries with inadequate infrastructure and marketing facilities. In Tunisia, export subsidies administered through the Fonds de Promotions des Exporations (FOPRODEX) during the 2000s, covered 50% of transport costs (World Bank, 2006). This suggests that investment in rural infrastructure and market development are equally as important as improving irrigation pricing. Market development in particular, is a key catalyst for innovation and efficiency improvements – as it can promote irrigation modernization as well as the use of more efficient and less water-intensive crop management practices and higher-value cropping patterns. In Jordan, for example, current reforms in the agricultural sector have aimed at

improving horticultural exports in the form of flowers, fruits, and herbs. Key obstacles being addressed, include improving product quality and standards of production, as well as modernizing techniques such as post-harvest handling, packaging and preservation of the integrity of the cold chain. The lack of adequate product quality standards and certification are also an issue in countries such as Yemen, where coffee exporters cite the need for “cuppers” to test product quality and authenticity. Improvements in market information and trade logistics, along with institutional innovations such as the expansion of trade intermediaries and shippers’ councils are also important.

In addition to investments in rural infrastructure, particularly transport, communications and storage facilities, public investment in research, development and extension services have high social and economic payoffs. But these are best linked with market opportunities and commercial viability. In the case of Chile, for example, public-private partnerships in industry-level research and development have proven to be useful for improving agricultural product quality and innovation in high-value agricultural products. Other important sources of innovation are international trade journals and industry and professional associations.

A more integrated approach to water resource management in agriculture is also supported by evidence at the project level. A recent review of the effectiveness of irrigation projects in a number of developing countries, for example, suggests that while poor farmers can directly benefit from increases in production and larger crop harvests, it is the “package” of policy interventions in the rural economy which matters, not just the supply and pricing of irrigation water (World Bank, 2006).

In Iran, for example, irrigation improvement projects at the regional level have used integrated water resource management approaches to enhance joint management of land and water resources across the agricultural sector. They have also encouraged more decentralized implementation and engagement by stakeholders through water user associations to manage secondary

irrigation networks and enhance cost recovery of operation and maintenance expenditures. The provision of agricultural extension and research activities to support farmers, has also helped to improve water management, crop diversification and enhanced income-earning opportunities. In Morocco and Egypt, private operators are sharing the costs of water transfer schemes and irrigation efficiency improvements in the Agadir and West Delta regions respectively. High and reliable incomes of farmers and growing high-value export crops have contributed to water tariff reforms allowing for full cost recovery in exchange for reliable and good quality water services (World Bank, 2007g).

Water marketing is another option. Such institutions tend to reduce the inefficient segments of agricultural production as municipalities and more water-efficient, market-oriented farmers are prepared to pay more for water than its worth to inefficient water users and traditional farmers. This requires, however, that farmers have legal water rights, pay for water withdrawal and have financial incentives to maximize its value (Shetty, 2006d). In Morocco, for example, informal water markets have emerged to enhance tradability in irrigation water rights. Although Morocco has a long tradition of water markets, the implementation of public ownership provisions and prohibition of water rights independent of land, made formal water markets obsolete. However, informal water markets emerged to facilitate adjustment. In the Nfis area, for example, Regional Agricultural Development offices allocate quotas based on irrigated land area. However, the official rate for irrigation water is lower than the farmers' perceived value with the result that farmers buy and sell quotas and informally convey information to network managers regarding their transactions. Distribution is then revised accordingly.

While irrigated agriculture contributes in value about 5%–10% of GDP, industry contributes an estimated 20%–50% of GDP and services another 30%–50%. Thus, water use in urban industry and services contributes as much as 20 times more to GDP than irrigated use, although the latter absorbs seven to eight

times more water (Saghir *et al.*, 2000). In particular, a growing share of water will be needed by consumers and firms in urban areas. Cities across the region are growing rapidly and populations in urban areas account for a growing share of the region's population. Specific problems related to urban water supply include disruptions in water flow across most cities in the region and low performance of water utilities in terms of staffing, efficiency and cost recovery. During the summer in Algiers, for example, piped water is provided to customers every other day, in Jordan twice a week and in Yemen, (Taiz) only once per month. Households are forced to store water through roof tanks and where economically feasible, purchase water from private vendors. As much as 52% of the cost of bulk water supplied to cities is subject to physical leakage and/or not billed to water users and this has been even higher in Syria (60%), relative to 8% in Singapore (Saghir *et al.*, 2000a).

Tariffs for municipal water use are usually higher than agricultural use but remain subsidized, with average costs of water use representing about 2% of household income. However, lower income households have tended to be adversely affected, since those not connected to reliable supplies must rely to a greater extent on water vendors charging higher rates, in some cases, 10 times the rate paid by those connected to piped supply. Price elasticities for domestic and industrial use are significantly higher than for agriculture (see Table 5). In many cities, tariffs have not fully covered capital, operation and maintenance costs; levels of water tariffs ranged from US\$0.04/meter in Cairo to about US\$1.11/cubic meter in Ramallah in 2000 (Saghir *et al.*, 2000b). Wastewater tariffs have been traditionally lower and in many countries, operation and maintenance costs of sanitation services are not covered. Most water utilities in MENA countries use increasing block tariffs which create cross-subsidization across large and small users. Public water utilities generally have low levels of efficiency and large payrolls: numbers of employees per 1000 water connections is between 5 and 10 relative to between 4 and 6 in Western Europe. In some cases, the publicly-owned operator

Table 5 Comparative Water Price Elasticities

	Domestic	Industrial	Agriculture
Latin America	-0.40 to -0.50	-0.70 to -0.80	-0.07 to -0.12
Sub-Saharan Africa	-0.45 to -0.55	-0.60 to -0.80	-0.10 to -0.15
West Asia/North Africa	-0.44 to -0.57	-0.75 to -0.85	-0.10 to -0.20
South Asia	-0.35 to -0.40	-0.65 to -0.75	-0.08 to -0.11
Southeast Asia	-0.35 to -0.45	-0.65 to -0.80	-0.09 to -0.12
Japan	-0.22	-0.45	-0.04
United States	-0.30 to -0.50	-0.45 to -0.72	-0.08 to -0.14

Source: Shetty, S (2006). Water, Food Security and Agricultural Policy in the Middle East and North Africa. *Middle East and North Africa Working Paper Series No. 47*, p. 9, World Bank; Rosegrant, M, X Cai and S Cline (2002). *World Water and Food to 2025: Dealing with Scarcity*. Washington DC: International Food Policy Research Institute. MENA countries are included in West Asia/North Africa.

functions relatively well, with financial independence and performance standards. More generally, there is a high degree of dependence on subsidies from the central government and in many countries, water shortages persist despite significant public investment. In Algeria, investments in urban water systems have been nearly US\$ 4 billion over the last 20 years (Saghir *et al.*, 2000b).

In countries where there has been significant progress made in improving domestic water supplies, policymakers have combined elements of technology improvements and greater private investment and competition in water supply. Few, however, have removed discretionary pricing interventions. In Morocco, for example, concessions of water supply and sanitation have been extended to the private sector in four major cities – regulated through a central authority which determines tariff caps, service standards, priority projects, and investments as well as requiring extension of the water network to poor households using a work fund financed by cities' network access fees and 0.5% of tariff revenues. Rules for adjusting water tariffs are flexible, with price caps that require any tariff increases of more than 3% to be made with government approval and the government retains the ability to

make unilateral changes to tariffs for reasons of “public interest” (World Bank, 2007a).

CONCLUSION

The problem of water scarcity in the MENA region has evolved from a host of influences — including external factors such as geography and climate as well as agricultural policy and overall development strategies. Given that more than half of the region’s existing water supply is allocated to agriculture — this is a primary area of focus for policy reforms. Within agriculture, water resource management has evolved from a development strategy which favored import substitution over trade integration and public intervention over greater reliance on markets. Policy measures have largely aimed to enhance security of supply in part, through large-scale hydraulic infrastructure investments rather than user-based associations while tending to benefit large farmers in irrigated areas and producers of strategic commodities capable of earning foreign exchange. A combination of agricultural price controls, input subsidies and tariff protection has contributed to multiple levels of price intervention, driving a wedge between domestic and international prices; consumer and producer prices. This has also served select urban and elite rural interests. Moving forward, sustainable water resource management requires a combination of policies and instruments to reorient water supplies toward higher-value uses across the economy as well as to raise the efficiency of water in use. The primary challenge in this regard, is to bring pricing more in line with true costs of water supply. In agriculture, this has been facilitated by the link between growing commercial importance and value, and the wider application of user charges. Joint maximization of land and water resources through integrated water resource management approaches and a greater reliance on rural infrastructure and productivity improvements in agricultural production are also promising. A more integrated approach to raising rural incomes, along with the enhanced use of

trade policy is also needed. In Tunisia, protection for cereals, legumes and pulses is estimated to cost four times per capita GDP every year for each job protected (World Bank, 2005). In Egypt, annual irrigation subsidies are estimated at US\$ 5 billion (Shetty, 2006e). Thus, enhancing rural income earning potential through a combination of measures to improve export potential, rural infrastructure, ensure appropriate regulation and pricing of irrigation water, technological improvements and better skills and education is likely to create less pressure on fiscal resources and be more sustainable for improving rural development prospects.

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Building a New Future: Development in the Post-Conflict Context and Post-Disaster Recovery

One of the main challenges for development in the post-conflict context is the need for simultaneous efforts at recovery, reform and development. In many cases, this is complicated by unique post-conflict elements related to re-integration of displaced populations and ex-combatants, in addition to loss of human capital, destruction of physical assets and disruption of trade links. Some of these elements are also typical of post-disaster recovery but there are important differences. The experience of the West Bank and Gaza and Lebanon surveyed in this chapter highlight the risks and complications of development in the post-conflict environment. A review of relief and reconstruction efforts in Turkey following the 1999 Marmara earthquake highlights the challenges of post-disaster recovery.

More generally, this chapter seeks to answer two main questions. What are the specific challenges of development facing policymakers in post-conflict and post-disaster environments? Are there key insights from this experience for development policy and approaches more generally?

THE CHALLENGES OF RESTORING GROWTH IN THE POST-CONFLICT ENVIRONMENT

Severe shocks or disasters be they conflict, a natural phenomenon or hazard and/or a technological accident reflect the interaction of

external phenomena and a vulnerability of society generally linked with poverty, the inability to insure against risks and/or misconstrued development strategies (Gurenko *et al.*, 2006). Post-conflict situations in particular, tend to be highly politicized and the risks of conflict being resumed are non-trivial. The uncertainty of post-conflict situations can also be associated with social and economic disintegration and ethnic or religious competition. Conflicts are also linked with competition for scarce resources and some are fanned into conflagration by the actions of external actors or local political entrepreneurs. Finally, conflict situations generally do not erupt from a single factor but rather a sequence of interrelated events and consequences (World Bank, 1998).

Given these factors, the objectives of post-conflict reconstruction are (i) to facilitate the transition to sustainable peace after hostilities have ceased and (ii) to support economic and social development. Policy efforts therefore tend to focus on jump-starting the economy through investment in key productive sectors, maintaining social service delivery, particularly in health and education, re-opening trade and foreign investment channels, targeting assistance to those particularly affected by the conflict, particularly female heads of households and normalizing financial borrowing arrangements, where necessary, through debt rescheduling, working-out arrears or other arrangements. The urgency of launching such initiatives is complicated by three significant factors; the inherent instability of the post-conflict environment, particularly with reference to underlying social and economic tensions, generally weakened government capacity and the nature of the donor response and international relief efforts.

The capacity of government to manage delicate social and political balances while launching bold reconstruction initiatives is a central element for successful recovery. In the post-conflict environment, government decision-making is complicated by the need to balance power blocs and forge new alliances, as well as manage government functions required of a new administration or one which is dealing with a significant loss of skills, experience and

overall capacity. From a fiscal policy perspective, efforts to jump-start growth frequently result in a bias towards short-term increases in fiscal spending and inflation, which are difficult to reverse. Growing fiscal imbalances can become compounded by a weakening of government control in the area of tax collection and revenue generation. This can create conditions that likely forestall rather than encourage a resumption of commercial and productive activities and may hamper competitiveness in resuming trade relationships. A typical pattern in the post-conflict environment tends to be a temporary growth spurt of around two percentage points per year in excess of normal growth; after cessation of conflict and during aid inflows. However, this, supra-normal growth rarely persists into third year after the onset of peace (Collier, 2002).

Much of the sustainability of the reconstruction effort thus has to do with moving from early stages of peace-building and generating “peace dividends” to undertaking larger development programs. Governments must begin to demonstrate a commitment to rational programs of reconstruction and sound macroeconomic policies early in the reconstruction process. Otherwise, early initiatives can establish unsustainable precedents. The first priority in this regard is generally to wean the economy from heavy government regulation and control typical of “war” economies.

Economic historians tend to link Europe’s “supergrowth” during the post WWII period, for example, with the success of the Marshall Plan in easing the costs of liberalization in product and factor markets and promoting more open trade in the post-reconstruction period. As a large-scale economic adjustment program, the Marshall Plan pushed governments towards versions of the mixed economy that had more market orientation and less directive planning. This was, to some extent, facilitated by the fact that Europe’s welfare states were built on top of the market allocation of goods and factors of production. Adjustment thus had a more significant impact on growth than financing infrastructure – and in most cases, Marshall Plan assistance accounted for less than one-fifth of the gross investment in recipient countries (De Long and Eichengreen, 1991a). There was also the requirement that for every

dollar of Marshall Plan aid received, the recipient country was required to place a matching amount of domestic currency in a counterpart fund to be used for purposes approved by the Marshall Plan administration. Marshall Plan recipients also had to develop a program for removing quotas and other trade controls. Countries such as Britain used these funds to retire public debt. Nations undergoing inflation could not draw on counterpart funds until a workable stabilization program had been agreed (De Long and Eichengreen, 1991a).

At the same time, however, policy measures in the post-conflict environment must be sufficiently flexible to accommodate underlying shifts in productivity as well as changing configurations of interests. Disrupted trade relationships and high levels of aid inflow, particularly goods and services, can interfere with domestic industries and dampen local production capacity. New social actors — including an expanded role for the Diaspora — can sometimes be hard to reconcile with existing social and productive structures. Entry by private small-scale infrastructure providers is prevalent. Thus, post-conflict environments tend to be characterized by both adversity and opportunism. This implies the need for policymakers to channel emerging interests and actors into a reconstruction and growth process.

In the case of post WWII Europe, for example, a new social compromise was needed in which consumers accepted higher prices for foodstuffs, workers moderated wage demands, owners of capital lowered demands for profits and recipients of social services accepted limits on safety nets. A broad agreement on the “fair” distribution of income or at least on a fair distribution of the costs and benefits of recovery was crucial (De Long and Eichengreen, 1991a). It also helped to keep fiscal spending in check and inflation under control as labor, management and government chose to trade current compensation for faster growth and higher living standards. In general, post-conflict countries which are able to develop a cohesive reform strategy through constructive domestic and external political bargaining, tend to have GDP per capita which is significantly higher in the post-conflict decade.

External actors, in the form of international donors and humanitarian organizations typically have significant roles and influences in post-conflict environments. The international response to situations of conflict tends to occur in four principle stages: political-diplomatic engagement for conflict resolution and reconciliation, enhancing security through peacekeeping operations, relief or emergency aid in the form of providing basic necessities and aid for reconstruction and development focused on rebuilding economic and physical infrastructure as well as institutions. The links between these stages are typically not well-defined and international actors tend to straddle a number of categories (World Bank, 1998).

Spheres of activity and influence tend to evolve in conjunction with each of these areas as opposed to a well-defined division of responsibilities in the context of a linear process of relief and reconstruction. Differences in aid classification between relief and reconstruction can create functional and budgetary gaps even as the two blend together in real-life situations. For example, restoring livelihoods through income-generation activities which are typically associated with recovery and reconstruction, are rapidly becoming an important part of early recovery initiatives. Reconstruction, in addition to addressing basic needs, aims at restoring heavy infrastructure and the normal life of business; it is a slow process of re-development with a long term vision (see Table 1). Other difficulties arise with the fragmentation of donor assistance, the multiplicity of demands from donors and slow disbursement of aid. There is also a tendency for donors to disengage once the conflict has receded from public attention (World Bank, 1998).

In post-disaster recovery, many of these factors are also at play, but government systems and functioning tend to be more robust, having not been associated with and generally weakened by a protracted conflict (Fengler *et al.*, 2008). The exception is a large-scale natural disaster which can quickly overwhelm even the best functioning country systems. In some cases, conflict and disaster can overlap, following inadequate government responses to natural disasters as in the case of the Bam earthquake in Iran when violent demonstrations by local residents erupted due to the slow pace of

Table 1 Relief, Recovery and Reconsruction

Stage	Time	Modalities
Disaster relief and recovery	0 to 25 days	Emergency food and water supplies, cash grants, restoring critical public services, temporary employment, emergency needs assessments
Damage and loss assessment	14-25 days	Baseline data, physical damage, economic losses, impact, needs, disaster risk management
Economic Recovery and Reconstruction	20 days to a few years	Cash grants, asset replacement, temporary employment generation, infrastructure projects, micro-finance projects, medium and long term planning
Risk reduction	Continuous	Building codes, retrofitting, risk transfer mechanisms, land use planning, risk assessments, awareness-raising, institutional development
Development	20 days to continuous	Local resource-based infrastructure development, regular micro-finance projects, local baseline studies and data gathering, counseling of local governments.

Source: Jha, S (2008). Sustainable Recovery and Reconstruction Framework. (Powerpoint presentation), World Bank.

reconstruction (De Luce, 2004). In the post-disaster environment, speed is of the essence, as the largest loss of life tends to occur within a few hours of the shock, further compounding the need for strong administrative capacity. In the post-conflict context, on the other hand, the challenge is combining planning and implementation for recovery and reconstruction while at the same time, re-building government capacity in key areas.

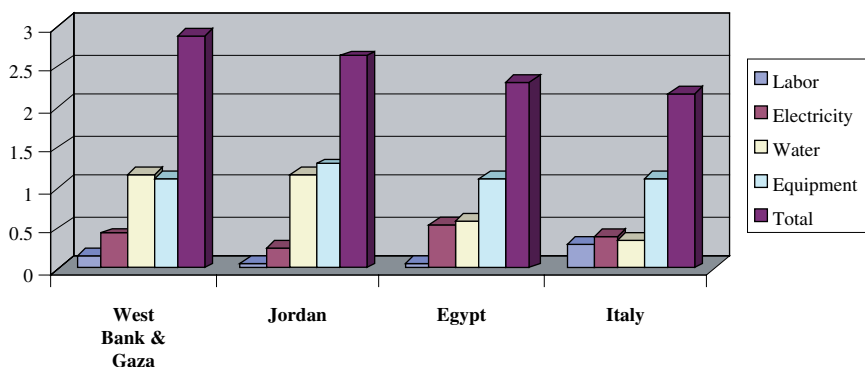
WEST BANK AND GAZA: STRUCTURAL SHIFTS AND THE INTIFADA

Repeated episodes of conflict and closures, together with underlying structural imbalances have significantly affected development

prospects in the West Bank and Gaza. Prior to the 1990s and the 1994 Paris Protocol, the economy of the West Bank and Gaza was already under severe strain. Income levels had stagnated, unemployment and underemployment were high, public infrastructure and social services were stretched to the limit and the fragile natural resource environment had suffered significant damage. The majority of local firms and institutions were experiencing a financial crisis. A skewed pattern of development was linked with heavy dependence on external factors. This included a trade pattern heavily dominated by trade with Israel, which has accounted for roughly 75% of exports and imports. Until, 2002, remittances from Palestinian workers employed in Israel represented over one quarter of Gross National Income. Growth performance has also been heavily influenced by the intensity of Israeli restrictions on movement and access of goods and people across borders and within the West Bank and Gaza (IMF, 2007a).

Fiscal dependency is also high; two-thirds of the Palestinian Authority (PA)'s budgetary revenues come from taxes collected by Israel on behalf of the Palestinian Authority (IMF, 2007a). The West Bank and Gaza also has one of the highest levels of aid per capita in the world. Shares of industry in GDP have remained small, less than 15% relative to an estimated 30% of GDP in neighboring Jordan; while services, trade (wholesale and retail) and construction dominate GDP (World Bank, 2007b). Production and labor costs have tended to be high (see Figure 1).

Following the creation of the Palestinian Authority (PA) in 1994 and the subsequent establishment of Ministries of Finance and Planning and with the help of the international community, government officials launched a wide-ranging reconstruction and development program. The aim of the Emergency Assistance Program was to provide tangible benefits to the Palestinian people quickly and equitably while laying the foundations for sustainable development. From a practical perspective, emergency assistance tends to be more effective when design features incorporate limited implementation capacity, build support from intended beneficiaries, promote effective donor coordination and maintain simple objectives



Source: World Bank (2002). *Long Term Policy Options for the Palestinian Economy*, Washington DC: International Bank for Reconstruction and Development, p. 58.

Fig. 1 Unit Costs of Production Marble (US\$/sq. meter)

and content. This tends to be linked with an emphasis on (i) short-term rehabilitation and maintenance activities for existing infrastructure; (ii) investments targeting imbalances in access to services particularly for vulnerable households; (iii) support for temporary works programs to alleviate immediate unemployment; (iv) making use of local capacity for program implementation including NGOs, universities, research institutes; (v) emphasizing training and institution-building where feasible; (vi) maximizing the use of local inputs, particularly unskilled labor, complemented by outside expertise where necessary; (vii) instituting mechanisms for effective management of funds; and (viii) building-in sufficient flexibility, in part, through a broad focus and flexible structures. (i.e. budget support). This allows incorporation of changes in the environment, actual experience in implementation and incorporation of on-the-job learning and analysis. From 1993–97, average annual per capita aid in the West Bank and Gaza was over US\$200 compared with US\$ 44 in Lebanon and US\$ 35 for MENA Countries (World Bank, 2002a).

In the case of the West Bank and Gaza, the immediate focus was on poverty alleviation and employment creation programs including funding incremental operating expenditures for large NGOs during the transition period. Upgrading, repairing and

maintaining existing infrastructure was emphasized to ensure broad impact in services and employment. The comprehensive assistance program covered nearly every economic sector. In addition, the Palestinian Economic Council for Development and Reconstruction (PECDAR) was created for the purpose of coordinating aid and managing development activities in lieu of weak and fragmented government capacity. Between 1970 and 1987, real per capita GNP more than doubled and growth rates were over 10% per year (World Bank, 2002a).

As events unfolded during the 1990s and 2000s, however, much of this expansion slowed dramatically and the focus on reconstruction and development quickly adjusted to a focus on and modalities for short term emergency relief. Episodes of rapid and steady growth were interrupted by repeated episodes of conflict, contributing to high volatility in the level of economic activity, which was compounded by mounting economic disruptions and loss of fiscal control on top of underlying structural imbalances. In the mid 1990s, economic expansion had accelerated along with PA fiscal revenues, bank deposits and bank credit. By 2000, the economy was projected to grow by 5%, with unemployment expected to decline to 10% (Valdivieso *et al.*, 2001a). Bank credit to the private sector had increased by nearly 30% and the economy was boosted by growth in construction and commerce sectors and rising housing demand, in part from a growing population. Substantial investment in tourism contributed to a rapid increase in the number of hotels by nearly 50% relative to the mid-1990s and another 25% in the first nine months of 2000.

With the outbreak of the Intifada in September 2000, however, growth decelerated rapidly, following the imposition of a severe closure regime. Palestinian workers were not allowed to enter Israel and exports and imports were completely blocked or highly restricted. The movement of goods between the West Bank and the Gaza Strip as well as within these areas was also restricted and there was significant damage to Palestinian infrastructure, loss of property and casualties. By 2007, there were more than 540 check points and fixed impediments for the movement of goods and

people. (World Bank, 2007c). The immediate loss of employment for a large share of the labor force with jobs in Israel, combined with the loss of exports and tourism earnings constituted the biggest shock to the economy in 30 years. Estimates of physical damage – approximately US\$650 million in 2002 were significantly lower than indirect costs of forgone economic opportunities related to investment in tourism and export sectors – approximating US\$1.2 billion. Poverty incidence increased significantly, per capita income declined by 10% in 2000 and nearly twice as much in 2001 (World Bank, 2002c). Fiscal spending expanded in an attempt to stabilize the economy from 1993 to mid 2007, government employment expanded from 4 to 18% of the labor force. (IMF, 2007b). By 2005, government expenditure was nearly 50% of GDP while revenues had declined. It is estimated that real GDP declined by 5-6% in 2000 alone and twice that rate in 2001. Growth in the Israeli economy also declined from a normal rate of nearly 9% to well under 1% in 2000.

By 2003, the situation had reversed itself somewhat and the economy experienced accelerated growth as GDP expanded by 6% in real terms largely as a result of fewer curfews and reduced violence as well as a “catch-up” in private sector activity and household spending (see Table 2). Fiscal spending continued to grow rapidly including a rising public sector wage bill; total increases in the public sector payroll were nearly twice the level allowed for in the budget and by 2006 the PA spent 27% of GDP on wages and salaries. In the first half of 2007, the PA security force accounted for about 50% of government employment (IMF, 2007a). In addition, payments to cover consumption of energy and utilities including subsidized domestic petroleum products were well over US\$ 300 million in 2006 (IMF, 2007c). This window of growth was short-lived however. In 2006, following the resumption of conflict, real per capita GDP was estimated to have fallen by 8%-10% to almost 30% below its level in 1999. Recent estimates suggest that more than 60% of Palestinians currently live below the poverty line (IMF, 2008).

Table 2 West Bank and Gaza: Volatile Growth (percent change)

	1999	2001	2003	2006
Real GDP	8.9	-15.4	5.8	-8.0
Consumption	8.3	-6.7	4.5	-5.0
Private	8.3	-5.4	6.0	-4.0
Public	8.4	-11.6	-1.6	-9.4
Investment	33.9	-44.6	18.0	-24.8
Private	36.0	-52.1	16.9	-15.0
Public	25.5	-9.9	20.6	-47.1
Exports	3.7	-34.7	-4.0	-11.6
Imports	19.1	-18.1	4.8	-8.8
Real GDP per capita	4.4	-18.7	2.1	-11.0

Source: IMF (2007). *Economic Developments in 2006 – A First Assessment*, Washington DC, p. 8.

Donor-financed emergency assistance has played an increasingly important role in helping to close the fiscal gap (see Table 3). Gross capital information by the private sector declined by 60% between 1999 and 2005 with adverse consequences for productive capacity and private employment prospects (World Bank, 2007d). Youth unemployment was estimated to be 60% in 2006, and declining social conditions have been reflected in deteriorating human development indicators, notably in the areas of child nutrition, chronic disease and household access to clean water which fell by more than 8% from 2000–2007 (World Bank, 2007g).

Fiscal imbalances have heightened the impact of closure and conflict on trade and private investment, in conjunction with a growing trend toward import substitution and declining competitiveness. Construction and other services have increased shares of GDP in relative terms while exports declined by 35% from 1999–2003 (see Table 4). Average wage productivity in Palestinian industry was 57% of the level of Egypt and most firms in the West Bank employ about four workers and use machinery that is over 10 years old, with little growth and investment. Only 50% of firms in the West Bank and 25% in Gaza invested at all in 2005 (World Bank, 2007d).

Table 3 West Bank and Gaza: Fiscal Balances (US\$ millions)

	2005
Resources	
Tax revenues (net)	1220
Domestic revenues	476
Clearance revenues	745
Domestic financing	477
Banks	304
Palestine Investment Fund	173
Previously withheld clearance revenues	137
External financing	349
Arab countries	194
Multilateral donors	155
Total	2184
Expenditures	
Wages and allowances	1001
Transfers, operating and capital expenditures	637
Net lending	344
Total	1982

IMF (2007). *West Bank and Gaza: Fiscal Performance 2006*, Washington DC, p. 4, 6.

Table 4 West Bank and Gaza: Select Commodity Exports by Sector (US\$ million and percent)

	Exports 2003	Percentage Drop (1999–2003)	Projected Exports by end 2007	Percentage Increase 2003–2007
Total	443	35	690	56
Stone & Marble	220	31	402	83
Agriculture	77	54	120	56
Metal Processing	15	49	20	33
Food/Beverages	14	16	20	43
Footwear/leather	14	45	18	29
Textile/garments	10	42	20	100

Source: 2003 Data.

World Bank (2005). *Stagnation or Revival: Israeli Disengagement and Palestinian Economic Prospects*, Washington DC: World Bank, p. 79.

Loss of market share and competitiveness for some industries has likely been permanent as a result of closures and the inability to guarantee timely delivery. The average number of days required to clear Israeli customs was 10 days for the West Bank in 2006 and 30 days for Gaza, although variability is high. Companies that rely on imports have tended to keep an inventory of 73 days of inputs and some large-scale exporters turn down contracts (World Bank, 2007e). Underlying shifts in the Israeli economy and growing competition in traditional export sectors such as textiles from Asia and Turkey are another factor, particularly for the garment sector, where employment declined by 50% from 2000–2004 (World Bank, 2007f). Since the 1990s, the Israeli economy has also become more open to the rest of the world; simple average applied MFN tariffs were 8.9% in 2005 and there is growing trade with India and China (WTO, 2005).

Future growth prospects are linked with the cessation of conflict and relaxation of restrictions on the movements of goods and people. Additionally, there is a need to move fiscal spending to a more sustainable basis and create greater fiscal and economic space for the private sector as well as improve the trade environment. Recent efforts in the area of fiscal reform have included measures to reduce recurrent expenditures, through a freeze in the wage rate and on new employment (with the exception of health and education), lowering subsidies for public utilities and continued improvements in public financial management. Over time, a full-fledged civil service reform could help to improve public sector efficiency, including retrenchment across sectors and application of an appropriate salary scale. Of critical importance is moving the balance back toward greater reliance on private entrepreneurs for income-generating opportunities. Private firms are squeezed between high production and labor costs fueled in part, by fiscal imbalances and the closure regime, together with diminishing export opportunities. Given that more significant costs of conflict are related to indirect losses in trade and export markets, there is a need for focused efforts to re-energize private investment and related capacity.

Palestinian industry has traditionally been concentrated in providing low-cost, labor-intensive products such as garments, furniture and shoes for protected domestic and Israeli markets. Given ongoing changes in regional and global environments, however, traditional production sectors are increasingly losing ground, while other sectors are emerging under difficult business conditions. Labor productivity in stone-cutting and metal industries for example, has remained relatively strong, while productivity has fallen significantly in spinning of textile fibers and is virtually stagnant in footwear and furniture production (see Table 5).

A layer of longer term “patient capital” particularly on the balance sheets of private firms could also help to ease transition to recovery. Such long-term financing is generally lacking in post-conflict environments and could be structured as equity, quasi-equity, debt or a combination thereof where the returns to capital to investors (banks, individuals, and/or funds) are tied to the success of the business. An important barrier to re-energizing the private sector in post-conflict environments, is a wait-and-see attitude by investors and uncertainty regarding the direction of policy. Given the uncertainty of the environment, however, returns to

Table 5 Key Indicators for the Palestinian Manufacturing Sector

	Value Added Per Wage (\$)			Exports/Sales		
	1998	2001	2004	1998	2001	2004
Meat products	2.84	2.11	1.95	0.16	0.16	0.13
Spinning of textile fibers	3.78	-0.09	1.62	0.29	0.18	0.42
Wearing apparel	1.45	1.32	2.34	0.28	0.15	0.38
Footwear	1.39	1.61	1.42	0.31	0.35	0.09
Pharmaceuticals	4.8	1.54	1.91	0.03	0.00	0.00
Stone cutting	2.7	1.76	2.66	0.35	0.29	0.25
Structural metal products	1.47	1.08	2.62	0.02	0.25	0.15
Furniture	1.93	0.75	1.8	0.12	0.05	0.18

Source: World Bank (2007). *West Bank and Gaza Investment Climate Assessment: Unlocking the Potential of the Private Sector*, Washington DC, p. 37, 38.

Note: Data are for the West Bank.

investors, rather than being structured as fixed obligations through fixed interest rates and principal amortization schedules could be structured as variable obligations tied directly to a business' economic performance i.e. via dividends, royalties or performance-based floating interest rates (Devlin, 2003). To date, private sector resources largely support the banking system vis short-term flows including remittances from the Palestinian Diaspora. Despite the difficult environment, bank deposits continue to grow – raising the deposit to GDP ratio to 90% in 2007 (IMF, 2008a).

More generally, there is a need to reduce inefficiencies and biases in social safety nets; such as petroleum subsidies which generally benefit middle and high income households. In addition, pension benefits for public sector retirees are the single largest source of social protection and constitute a large share of GDP. The level and growth of such benefits needs to be addressed from the perspective of sustainability and equity – an issue explored more fully in Chapter 12.

What about the future course of donor assistance? One case study of aid effectiveness in the West Bank and Gaza reviews assistance over the period 1993–2000, highlighting successes and failures in donor programs (World Bank, 2002a). A key challenge since the 1990s has been maintaining national ownership of the aid program by the Palestinian Authority (PA) despite a large number of active donors, significant volumes of aid relative to domestic resources and varying donor priorities and interests. This was complicated by adoption of a blue print approach with over 70 activities in 15 sectors instead of a more flexible approach to sub-project selection within broadly-defined criteria. As PA ministries and capacity were being established, there was a need for greater centralized coordination to manage disagreement on views, inter-ministerial competition and rivalries, as well as high levels of involvement by municipalities and NGOs. In this environment, it was difficult to establish and maintain development priorities. A related issue was linked to the considerable role played by PEC-DAR, the autonomous project implementation unit established to administer donor programs. While its performance was considered

to be efficient, competent and transparent in the use of funds, engagement through PECDAR also had the effect of diverting energies from efforts to build up local government capacity in critical areas. While intended as a transitional mechanism, PECDAR in fact, remained engaged in project implementation well into the reconstruction period while capacity in line ministries remained underdeveloped.

Sustainability has been a key concern across the board. High levels of donor assistance and repeated episodes of conflict have forestalled needed fiscal reforms. This has compounded uncertainty as investors are reluctant to expand, creditors are wary of lending and workers are reluctant and less capable of adopting new skills. As the situation in the West Bank and Gaza has deteriorated, financial assistance has been re-directed into short-term, emergency support mechanisms along with continued high levels of recurrent spending and public employment expansion. Coordinating and managing high levels of donor assistance has also created its own challenges and dynamics (see Box 1).

Box 1 Assessment of Donor Aid Coordination in the West Bank and Gaza

An assessment based on interviews with a wide group of donors, PA officials and stakeholders identified the following challenges with coordinating development assistance:

Donor assessments:

- Aid bodies were considered too numerous with cumbersome and confusing structures.
- The PA as a partner was insufficiently involved, particularly in needs assessments and prioritization processes; the same was true for civil society, particularly in the reform process.
- There were too many meetings and processes without effective follow up and implementation.
- Information sharing could be improved by regular liaising, general use of common databases and the distribution of short and concise fact

(Continued)

Box 1 (Cont'd)

sheets. Lack of tracking of donors' pledges and disbursements was seen as particularly problematic.

- Coordination and harmonization at the project level was minimal; there was frequent duplication in some areas while others were totally neglected.

Palestinian assessments:

- Assistance was driven too much by donor agendas; the PA should have been the owner of the development and reform process and donor funds should have been disbursed according to geographic and sector needs and priorities as defined by the PA.
- The PA was insufficiently involved in all aspects of aid coordination from working together on a regular basis to being more engaged in the various database initiatives.
- The tendency among donors was to bypass the PA at its central level (partly due to restrictions on movements) which proved to be highly problematic in terms of PA management and credibility as well as the political message that this conveyed.
- Donors lacked a strategic vision. If the objective was to create a viable Palestinian state, then donors should have continued to build PA capacity and institutions rather than bypass them. There has been an unfortunate tendency to shift too much toward emergency/humanitarian activities and create an alternative UN bureaucratic structure.
- Procedures on project management were not harmonized and intra-donor coordination was insufficient; creating duplication and extra administrative workloads for all concerned.
- There were some positive developments in the PA-donor relationship particularly concerning the reform process and the channeling of funds such as to the single treasury account and creation of a municipal fund.

NGO Assessment:

- There was insufficient involvement by NGOs in overall aid coordination mechanisms.

Source: Lister, S and A Le More (2003). *Aid Management Coordination During the Intifada*. Report to the LACC Co-Chairs.

LEBANON-BORROWING AGAINST THE FUTURE

In the case of Lebanon, a 15-year civil war which began in 1975 resulted in a significant loss of human life, productive capacity and rapid growth in government spending, leading to increasingly unstable debt dynamics. In addition to significant casualties, nearly one-half of the country's physical capital stock had been destroyed, together with a decline in per income to about one-third of pre-war highs (Eken and Helbling, 1999). Much of the damage accrued to the private sector, as Lebanon had developed an economy highly dependent on private investment and initiative. The Lebanese economy has traditionally been characterized by a high level of openness and market-friendly policies in which the government has played a relatively minor role in development efforts. Conservative fiscal spending, together with low expenditure and low tax ratios, a stable currency and low inflation, were hallmarks of the Lebanese economy.

In the 1960s and 1970s, development planning and policy was largely focused on public investment programs, with private investment accounting for the majority of total investment; much of which was allocated to service sectors, primarily construction and linked with growing demands in housing, tourism and business. Agriculture and industry contributed modestly to GDP, with a high concentration of economic activity in coastal and central regions and a disparity in rates of growth across sectors as well as geographic regions. During the 1970s, Lebanon also played a crucial role in intermediating goods and services between the oil-exporting economies of the GCC and the rest of the world. High levels of imports were financed by net receipts from tourism, transportation and net investment income, with a large but volatile inflow of short term capital and relatively small inflows of long term capital.

During the worst of the civil war, the Lebanese private sector remained resilient, investing in banking and real estate sectors and conducting transactions almost exclusively in dollars. Over time, however, this contributed to a basic imbalance between a monetary

sector with high levels of liquidity and productive sectors such as industry and agriculture which generally suffered from a scarcity of capital and lower productivity. With regard to social services, there was heavy reliance on private schooling, sponsored by different groups and varying widely in quality. Social service delivery was fragmented and complicated by meeting the diverse needs of more than 20 ethnic/religious groups.

After signing of the Taif Accord in 1989, hostilities ceased and the long process of recovery and reconstruction began. High levels of capital inflows helped to finance deficits; high interest payments on the domestic debt absorbed nearly 40% of total fiscal revenues. The launch of the National Emergency Recovery Program, a short term program (1993-97) with investments of US\$ 2.3 billion was focused primarily on infrastructure reconstruction and jump-started the recovery with average annual GDP growth at nearly 10% from 1991-97; boosted by intensive construction activity and real estate development. A resilient private sector, well-backed by an efficient banking system and with strong links to foreign investors, played an important role, although this dynamism was generally not shared by potential and new entrants in the business environment. Average wages remained relatively high (US\$563/month) and there were severe shortages of managerial, technical and finance skills. Businesses were largely financed by a combination of retained profits, family money, personal savings and land sales. Informal collaboration with public entities also created a barrier of entry of sorts to new entrepreneurs (World Bank, 1995).

Public sector capacity was stretched to the limit. In addition to planning and implementation of the reconstruction program, there was a need to address urgent housing problems for displaced populations, focus development efforts on poorer regions and create conditions for the return of emigrant professionals. The need to rebuild whatever had been destroyed was thus competing with the need to maintain existing capital assets and to expand infrastructure more generally to facilitate economic recovery. Such efforts were also required making up for years of neglect in terms of

maintenance as in the case of the transportation system. There was also a growing need to undertake fiscal reforms to reduce an unsustainably high fiscal deficit and debt accumulation.

Reconstruction was carried out through the Council for Development and Reconstruction (CDR) created in 1977, reinvigorated in the 1990s and charged with wide-ranging responsibilities and functions including planning reconstruction and development, managing relations with donors and contracting domestic and external loans to finance development projects. The CDR effectively replaced the Ministry of Planning and took on functions normally associated with the Ministry of Finance, in addition to line ministries. While this was intended to offset weak public sector capacity, it resulted in an overlap of responsibilities with executive agencies and ministries as well as the lack of clear delineation of lines and authority and responsibility between the CDR and public sector agencies. By the 1980s, institutional reforms were needed within the CDR itself to strengthen its focus on planning, coordination and monitoring of reconstruction programs, with greater divestiture of planning and implementation to line ministries and borrowing functions to the Ministry of Finance.

Reconstruction efforts and the need to stabilize the country politically also contributed more generally to rapid growth in government intervention. There was increasing involvement by the government in financial transfers with weak integration in the budgetary process including social transfers, to public servants and assistance for health and education expenditures, price support for petroleum products and agricultural commodities such as cereals, together with subsidized credit and transfers to public enterprises. The National Emergency Reconstruction Program was quickly followed by the Horizon 2000 Program, again with a heavy emphasis on infrastructure reconstruction and some policy reforms such as introduction of a nominal anchor for the exchange rate to reduce inflation. Horizon 2000 represented reconstruction on a massive scale with planned total public investments of US\$ 18 billion (1995 prices) from 1995–2007. It focused on re-building electricity,

telecommunications, roads (37% total expenditure) followed by social sector spending in primary, secondary and technical education, health, housing, and resettlement (25% total); along with investment in productive sectors such as agriculture, ports, free zones, tourism (8%) and rehabilitation of public administration (18%) (Eken and Helbling, 1999a).

Growth accelerated but the sustainability of this growth rapidly came into question as the government was increasingly unable to stabilize spending, promote revenue generation through effective tax collection and encourage competitive private investment outside of real estate. Government expenditure nearly doubled from 23% of GDP in 1993 to 42% in 1997 with high shares of expenditure on wages and salaries, purchases of goods and services as well as transfers and subsidies (Eken and Helbling, 1999b). In late 1995, a retroactive wage increase was implemented to compensate civil servants for some of the accumulated wage loss after the civil war. At the same time, capacity for revenue collection remained weak and unbalanced, relying heavily on imports, excise goods and large scale taxable public services and administrative fees.

From 1993–1997, budget deficits varied between 9% and 26% of GDP and net public debt increased from 38% of GDP in 1993 to 97% in 1997 (Eken and Helbling, 1999c). Furthermore, there were underlying problems related to ongoing weaknesses in the production structure and gaps in infrastructure provision. Industrial reconstruction was complicated by the need to simultaneously overcome the consequences of prolonged conflict which created a pressing need for working capital as well as undertaking significant technological changes to re-capture foreign markets. This made industrial recovery much more difficult than recovery in the service sector, requiring a combination of policies related to export promotion, rationalization of tariffs, training of skilled labor and land-use planning. Agricultural recovery similarly required strengthening of government services in rural, northern and southern areas, promotion of agricultural credit and better utilization of the country's irrigation potential in the South and in the Bekaa Valley. Strengthening the planning and project preparation

capability of government entities and key ministries such as Housing, Public Works, Transport and Education was also critical.

In the post-conflict context, borrowing in anticipation of higher future permanent income is typical; however, in the case of Lebanon it became chronic. Government programs provided for sharp increases in capital expenditure and large primary budget deficits – largely financed through domestic debt. There was an underlying assumption that infrastructure rehabilitation would lead to private sector-led growth and an expanding tax base, contributing to a reversal from primary fiscal deficits to primary surpluses. This was also based on assumptions linked to the strengthening of administrative capacity to improve revenue collection and the expectation that increases in capital expenditure would be transitory and reversed once rehabilitation of infrastructure was complete.

In reality, however, while the government succeeded in rebuilding physical infrastructure, it did not succeed in implementing policy reforms needed to put fiscal expenditures on a more sustainable basis and encourage private contestability in domestic markets. Despite a host of reforms including lowering import tariffs, together with a revision of corporate and individual income taxes, raising excise taxes on tobacco and others, revenue generation remained fragile. Taxpayer compliance and tax collection were weak and the government resorted to measures such as fees on cellular phone calls, service taxes on hotels and restaurants, road user taxes and increases on taxes on private cargo. About half of Lebanon's domestic markets are also considered oligopolistic to monopolistic and one third has a dominant firm with market share above 40%. This is exacerbated by the existence of public monopolies in utilities, transport and communications sectors (Dessus and Ghaleb, 2006a). Laws of exclusive agency provision have been granted for decades to privileged importers for the right to exclusively supply various international trademarks (Berthelemy, Dessus and Nahas, 2007).

Progress on creating more broad-based social welfare and consensus was also limited and fragmentation in social programs contributed to uneven impacts across groups and geographic

areas. A large number of programs appeared to have had little impact on key sectors and activities. In the health sector, for example, spending was high on a per capita basis but largely concentrated on overbuilding of hospitals and provision of higher-end services and drugs while neglecting primary health care services including immunization programs. Similarly, in education, a large share of spending was based on subsidies to civil servants. Reform of the pension system was also needed to enhance fiscal sustainability – civil and military pension systems have imposed a growing burden on the budget (World Bank, 2007). Thus, following a period of accelerated growth during reconstruction in the 1990s, the Lebanese economy fell into a slow growth trap with declining investment, limited profitable business opportunities and weak competitiveness.

Real GDP growth was slightly above 3% between 1993 and 2005; over roughly the same period, shares of manufacturing and agriculture declined from 20% to 17% of GDP; informality rose to 34% of GNP. Exports (including tourism) increased but contributed to only one-fourth of output growth from 1993 to 2005. Dependence on external resources grew rapidly; external savings continued to be an important source of financing in the Lebanese economy, with foreign capital inflows, transfers and remittances accounting for 33% of GDP on average every year between 1993 and 2005. High levels of capital inflow and government expansion also contributed to real exchange rate appreciation in the mid 2000s, approximately 2–3 times levels in the 1990s (Berthelemy, Dessus and Nahas, 2007). Costly infrastructure services and high rates of migration of skilled workers further dampened competitiveness, it is estimated that nearly 40,000 people migrated between 1996 and 2001. Under current migration patterns, approximately half of a given generation will have left the country by the age of 59.

The fragilities of this situation were compounded by the five week conflict with Israel in 2006 and the month-long blockade which inflicted heavy human and economic damage and a worsening of the fiscal situation. With estimates of physical damage on the

Table 6 Lebanon: Economic Indicators

	2003	2004	2005	2006
<i>Output and prices (annual percentage change)</i>				
Real GDP (market prices)	4.1	7.5	1.0	0.0
Consumer prices (end of period)	2.2	2.0	0.5	7.2
<i>Investment and Saving (% GDP)</i>				
Gross capital formation	19.3	22.1	17.0	12.2
Government	3.1	3.3	2.2	2.5
Non-Government	16.2	18.9	14.9	9.7
Gross National Savings	6.0	6.3	5.3	5.3
Government	-10.2	-5.4	-6.3	-8.6
Non-Government	16.3	11.7	11.6	14.0
<i>Public finances (% GDP)</i>				
Public revenue (including grants)	22.1	23.2	22.9	24.9
Expenditure	35.4	31.9	31.4	36.0
Budget balance	-13.3	-8.7	-8.5	-11.2
<i>External sector (% of GDP)</i>				
Exports	43.2	18.3	11.1	22.5
Imports	10.4	30.3	-1.2	1.8

Source: IMF (2007). *Lebanon: Use of Fund Resources-Request for Emergency Post-Conflict Assistance*. IMF Country report No. 07/177, p. 22.

order of US\$2 billion, real GDP in 2006 was zero (see Table 6). Losses of housing units were substantial and one quarter of the population was displaced. Fiscal balances also worsened considerably. In 2006, for example, the fiscal deficit nearly doubled, following higher military spending, relief expenditures and increases in interest payments on the debt along with transfers to public agencies. Inflation accelerated, reaching 7% by December 2006 (IMF, 2007d). Revenues were affected by declining trade, value-added and other tax revenues. By end 2006, government debt was over 175% of GDP, reversing significant progress made in reducing the debt burden following debt restructuring from the 2003 Paris II Conference.

Lebanon's debt overhang is currently one of the highest debt burdens in the world although Lebanon is able to service this debt based on its reputation in credit markets, commitment by local

banks and unique investor base. A large share of Lebanon's government debt is held domestically by private creditors – particularly domestic commercial banks, which play a much more significant role relative to comparator countries. Furthermore, banks fund their positions from deposits, which totalled 267% of GDP in 2006; a large part of which are held by non-residents. Individual deposits also tend to be highly concentrated, suggesting that high net-worth individuals account for most deposits. However, the majority of deposits are very short maturity and deposit dollarization is high, with nearly 75% scheduled to mature within one month. Local banks hold about 50% of outstanding government paper; the Central Bank holds another 25%. Thus, a sovereign debt crisis would immediately turn into a banking crisis. There is a perception, however, among investors, that donors and Lebanon's loyal investor base help provide an implicit guarantee preventing the Lebanese economy from falling into a financial crisis. At times, investors have referred to Lebanon as a "moral hazard" trade (Schimmelpfennig and Gardner, 2008).

After the 2006 conflict, Saudi Arabia and Kuwait announced deposits of US\$1 billion and US\$500 million respectively, in the Lebanese Central Bank along with the provision of an additional US\$500 million and US\$300 million in aid. This contributed to a narrowing of Credit Default Swaps (CDS) and Eurobond spreads almost immediately. A subsequent donors' conference generated pledges of US\$900 million. In addition to donor support, investors and depositors also tend to be dedicated and Lebanon's track record of no depositor losses, the maintenance of full (internal and external) convertibility during times of stress and the banking system's high dollar liquidity all contribute to depositor confidence. Moreover, the Lebanese banking system offers bank secrecy, while depositors have never lost money from bank failures (Schimmelpfennig and Gardner, 2008a). Main depositors include the Lebanese Diaspora, as well as depositors from Syria, the West Bank and Gaza, Iraq, Jordan, Saudi Arabia, Kuwait, and the UAE. Anecdotal evidence suggests that the largest group of depositors is the Lebanese Diaspora estimated to number anywhere from 5 million to 16 million.

Beyond meeting basic reconstruction needs, future growth prospects for the Lebanese economy lie in putting in place mechanisms for fiscal control and improving competitiveness in domestic and external markets. Fiscal adjustment is an important priority, particularly rationalizing current expenditures, containing the wage bill, and the restructuring of and privatization of a number of public enterprises. A review of salary and benefit structures in some public entities and overstaffing in others could create more fiscal space. Reducing budgetary support to Electricity du Liban (EdL), which is estimated to have reached 4% of GDP in 2006 is critical (World Bank, 2007h). Introduction of a global income tax without any increase in rates is expected to introduce more equality in the tax burden without imposing burdens on low income groups. Raising the VAT rates is another option for improving revenue potential.

Of particular concern for moving forward in the post-conflict context is insuring that the costs of fiscal adjustment are not concentrated on particular groups and regions. Along with rebuilding health and education capacity, there is a need to strengthen equity targeting of social policy, improve the efficiency of social services and expand social safety nets and social insurance in some areas. Eliminating fees on basic education and replacing these with block grants to public schools, revitalizing primary care services and the use of conditional cash transfers to reduce drop-out rates among poorer groups can all help in this regard.

FROM POST-DISASTER RECOVERY TO DISASTER PREVENTION IN TURKEY: THE CASE OF THE 1999 MARMARA EARTHQUAKE

Turkey is located in one of the most active earthquake and volcanic regions in the world; more than 95% of the country's land mass is prone to earthquakes. The Marmara earthquake, which occurred on August 17, 1999 was one of the most devastating in recent times, measuring 7.4 on the Richter scale, leading to 15,000 deaths and leaving hundreds of thousands of people homeless. Economic

losses were also substantial. Marmara had increasingly become an important center of industrial activity in Turkey as a result of high rates of rural-urban migration and industrial growth. Thus, the pace of growth and development itself had the effect of compounding the damage associated with the earthquake. International support for Turkey following the disaster was rapid and generous; however, the initial response by Turkish authorities was hampered by clogged infrastructure, inadequate administration and coordination and lack of timely information flows (Gurenko *et al.*, 2006).

In the immediate aftermath of the quake, communications systems linking the affected municipalities with outside agencies and organizations were destroyed and thousands of residents were trapped in devastated buildings, including many of the officials expected to provide initial response efforts. The Turkish disaster response system, which had performed reasonably well in previous crises, was largely unable to meet the demands of the August 17 crisis and this was complicated by the loss of critical elements of national infrastructure. Jammed roads and destroyed bridges resulted in a delayed response; it took nearly one day for officials from the General Directorate of Civil Defense (GDCCD) to reach affected areas and once they arrived, officials had little information about where to go and had little effect. A crisis center established under the Office of the Prime Minister was organized a few hours after the earthquake along with crisis monitoring centers, however, operations were hampered by communications problems. Government capacity in the response effort was also uneven. The GDCCD began to request information from provinces about roads, water supply, gas, electricity and damaged buildings using fax machines. The Health Ministry, on the other hand, was able to mobilize 139 ambulances and 110 doctors to the region by 6:30am. When communications and power capacities began to return, critical rescue opportunities were lost and the response effort was in disarray (World Bank, 1999a).

In most post-disaster environments, a first priority is to undertake an immediate needs assessment followed by a more in-depth damage and loss assessment. The latter assessment typically covers

macroeconomic implications of the disaster (growth, inflation, balance of payments, fiscal accounts) the effect on firms and the financial sector (including the insurance industry where relevant) and the social dimension (human fatalities, employment losses and increased burden on social protection programs). The Marmara Earthquake Damage Assessment, for example, estimated direct costs associated with physical damage to capital assets and inventories, indirect costs in the form of output losses and foregone earnings, as well as the costs of emergency relief efforts and secondary effects related to short and medium term impacts of the disaster on overall economic performance; notably fiscal accounts and the balance of payments. Direct costs were on the order of US\$ 3–6 billion (World Bank, 1999a). However, estimates of indirect costs and secondary effects were also high and potentially more significant. Secondary effects including the impact on the current account and fiscal balance were estimated at more than 1% of GDP relative to 1999 levels over the period 1990. Employment losses in affected areas were estimated to range from 20–50% in addition to fatalities and homelessness among 114,000 school children.

In general, there are three channels through which natural disasters are expected to affect economic activity namely (i) inflation: as a negative supply shock could be expected in principle to cause price rises; (ii) interest rates and government debt service, and (iii) the balance of payments, as central bank reserve losses in the aftermath of a shock tend to be large. In the case of Turkey they were estimated at US\$ 1 billion. Over a longer period, the impact of a disaster on exports and lower tourism revenues could have weakened the current account balance, while imports would increase substantially due to reconstruction needs. Many of these effects were also present in the post-conflict environments of Lebanon and the West Bank and Gaza.

In the case of Turkey, however, such adverse macroeconomic consequences in the aftermath of the earthquake were largely contained by swift monetary and fiscal policy measures. In the initial

post-shock period, Turkish Central Bank intervention helped to calm markets and prevent a financial panic. Submission to Parliament of a supplemental tax package to help meet the budgetary cost of responding to the quake also signaled the government's intent to maintain fiscal discipline. The subsequent adoption and enactment of major pension reform legislation in the days following the disaster also helped confirm the government's commitment to ongoing adjustment measures. In addition, the government worked with international partners to mobilize external financing estimated at US\$ 3 billion.

Thus, the primary weakness of the emergency response rested in over-centralization of government capacity combined with gaps in institutions and infrastructure and a legacy of weak enforcement of safety provisions in building codes. As with most disasters, the extent of earthquake destruction was a function of the shock intensity and the vulnerability of structures subjected to the quake. This has been a critical issue in Turkey; the Marmara earthquake, for example, was less severe than earthquakes which hit Northridge in California in 1994 and the 1995 Kobe earthquake in Japan; nevertheless, the extent of damage and loss of human life was higher by at least one order of magnitude (Gurenko *et al.*, 2006a).

Reconstruction activities following the Marmara earthquake included many features of post-conflict reconstruction; namely (i) upgrading public sector capacity, particularly the disaster response system, (ii) rehabilitating the damaged business sector and reducing the social effects of the earthquake and (iii) reconstructing and repairing affected housing and municipal infrastructure. A US\$ 505 million loan from the World Bank covered multiple phases of reconstruction and recovery, disaster risk mitigation and emergency preparedness measures, through *inter alia* housing reconstruction, building of a national emergency management system, introduction of a building retrofitting code to upgrade the safety of the existing building stock, establishment of the Turkish Catastrophe Insurance Pool and strengthening capacity of municipalities to implement disaster-resistant development with varying

degrees of success. Similar to other reconstruction programs, rehabilitation of rural and urban housing structures and infrastructure was generally highly successful; although early estimates of needed repairs did not allow room for inevitable shifts in household behavior following the shock.

The more problematic areas of reconstruction included building institutional capacity, including for disaster management and response. International experience in this regard tends to exhibit a more decentralized approach, relative to the Turkish case and includes (i) a strong emphasis on developing municipal and provincial capabilities; (ii) a single national agency charged with coordination of preparedness, planning, response and recovery activities directly linked to the Executive branch of the government or the Ministry of the Interior; (iii) a national risk reduction strategy that identifies risk and mitigation priorities; (iv) a national emergency management coordination agency with a dedicated facility for managing disasters and an aggressive national training program; (v) common management systems for every function and levels responsible for implementation of emergency tasks; (vi) a strong emphasis on modern information management, priority-setting, resource allocation and tracking to facilitate efficient allocation of relief to areas impacted by disasters; and (vii) an aggressive nationwide public education and hazard awareness program including emergency preparedness (World Bank, 1999b).

According to Law 7269, disaster management in Turkey was under the authority of the Ministry of Public Works and Settlement and the General Directorate of Disaster Affairs (GDDA) which was divided into seven major departments including earthquake research, disaster damage assessment, emergency relief and machine support, planning and indemnification of affected populations, disaster fund management, temporary housing and prefabricated house construction. Such functions were carried out by an estimated 1200 personnel, many of them planners, architects, engineers and geoscientists. The General Directorate of Civil Defense (GDGD), on the other hand, reported to the Ministry of Interior with some 3000 personnel and the GDGD tended to be narrowly focused on

traditional preparation for armed hostilities as opposed to disaster management.

Local governors, in turn, did not have an operational role but were expected to coordinate and mobilize resources of other agencies. Mayors had little direct authority and responsibility for disaster management. There was no single national coordinating agency for disaster management, with each ministry housing a unit responsible for disaster management and general lack of coordination. Rescue and relief operations were the direct responsibilities of provinces or districts with assistance provided by the central government, while the central government was responsible for reconstruction and rehabilitation. The Red Crescent Society, GDCD and the military all played a significant role in rescue and relief operations.

The proposed creation of a Turkish Emergency Management Agency (TEMAD) as a single agency responsible for coordinating preparedness, planning and response efforts appeared to address many of these issues. In reality, the institution did not evolve as planned, due in part, to a complex institutional structure, coordination difficulties and others (World Bank, 2007a). Pre-existing divisions of responsibility between the General Directorate of Disaster Affairs (GDDA) under the Ministry of Public Works and Settlements as well as the General Directorate of Civil Defense (GDCD) and the Ministry of the Interior were not easily dislodged. Attempts to fuse these functions as well as those of other relevant entities into a new, single institution thus met significant resistance and there was a general lack of political will to carry out needed restructuring of roles and responsibilities. This was compounded by the institutional weakness of the new entity itself with regard to carrying out needed investments and taking over responsibilities from other entities. While the emergency response to the earthquake demonstrated inadequate coordination of planning, response and preparedness, establishment of TEMAD in 2000 made limited headway in this regard and its ability to function as fully designed was significantly weakened.

Support for a program of more evolutionary and incremental changes in the way hazard risk management functions are

performed system-wide would have been a valid alternative (World Bank, 2007a). Ultimately, implementation of the activities carried out by TEMAD were significantly scaled down, a new headquarters was completed and systems for emergency information management and emergency communications were designed and implemented. This did not, however, address the existing overlap of responsibilities and institutional arrangements for disaster risk management which remained an ongoing challenge.

One of the most successful outcomes of the project was establishment of the Turkey Catastrophe Insurance Pool which effectively facilitated the transfer of over US\$1 billion in loss potential from the Government of Turkey to international reinsurance markets. This had favorable implications for public-private partnerships in disaster recovery efforts (Gurenko *et al.*, 2006b). Following introduction of the program in 2000, the insurance penetration for catastrophic coverage more than tripled by 2006 (covering 16% of the insurance housing stock) and TCIP is now the largest insurance program in the country and one of the largest government insurance programs in the world. Modeled on the California Earthquake Authority and the New Zealand Earthquake Commission, the TCIP is a public sector insurance entity providing catastrophic risk insurance for Turkish homeowners. It is a public-private partnership with no public employees and all of its business functions are subcontracted to the private insurance industry. The government's role is limited to providing contingent support in excess of the TCIP's overall claims-paying capacity. Support is only triggered by an event equivalent to an earthquake in Istanbul with a 200-year return period.

LESSONS FOR POLICYMAKERS

The problems of post-conflict development and post-disaster recovery as surveyed in the case of the West Bank and Gaza, Lebanon and Turkey, respectively, raise a number of issues for policymakers. The experience suggests that in the aftermath of a shock, the economy tends to shift towards higher levels of

government interventionism with the objective of stabilizing incomes and restoring social peace. Private entrepreneurs and market forces can be sidelined in the rush to implement large-scale infrastructure and centrally-led recovery programs. This is further complicated by rapid growth in government itself and associated fiscal imbalances. Much of this emerging bias toward central planning type approaches can also be linked with the nature of donor involvement and/or external actors. The nature of the response by government entities thus determines how quickly daily life and economic activity can return to normal in the present circumstances and how well economy and society can transition to a new equilibrium growth path. Rapid capital inflows can not only help stabilize the economy but also lower the cost of government expansion, particularly employment. This can lay the seeds for unsustainable fiscal policy. There is a potential crowding-out of private investment in tradable, labor-intensive sectors and overexpansion of the non-traded sectors, analogous to the Dutch Disease. Fiscal policy is as, if not more critical in the post-conflict environment than in other circumstances. Post-conflict environments are also not immune from the forces of globalization and a number of foregone opportunities have likely disappeared permanently when countries plug back into the global network. Thus, policy reforms focused on growth acceleration with adjustment are vital for enhancing sustainable growth prospects as well as coping with the inevitable decline in external assistance which tends to occur early in the reconstruction period.

National authorities are the indispensable interlocutor and conduit for the international response as well as the focal point for national rehabilitation efforts. The role and functioning of government entities is vital for the success of the reconstruction effort. Marginalizing or ignoring government capacity is counterproductive and self-defeating. Thus, the choice of institutional arrangements in post-conflict or post-disaster recovery programs – particularly the degree to which this builds or weakens national capacity over the medium term, can be critical for the success of the re-building effort and development. There are clearly tradeoffs between

working with a completely independent agency with specific authorities and responsibilities or integrating a new agency into an existing ministerial system (Fengler *et al.*, 2008). A key measure of success is the degree to which institutional coordination and collaboration across relevant agencies is increasing or decreasing, together with the fiscal impact.

One element of critical importance in the post-conflict/post disaster context is the need for strong data collection and management procedures. The capacity to collect and maintain baseline data in a manner which can be widely shared and which enables monitoring of progress in recovery and reconstruction efforts is becoming widely acknowledged as a critical element for emergency preparedness as well as successful reconstruction. In the case of the Marmara reconstruction program, for example, key performance indicators and targets for project outcomes facilitated tracking and reporting of reconstruction progress. This enabled timely adjustments to the program such as adding refurbishment of health clinics and early feedback from housing reconstruction beneficiaries, which was subsequently incorporated into housing unit designs. Similarly, potentially difficult land appropriation issues were handled more effectively with the help of compensation assessments, socio-economic baseline surveys and impact assessments of the expropriation. A key concern is linking national disaster information platforms to established procedures and institutional structures for disaster response (Amin and Goldstein, 2008).

There is also a need to mediate new demands from different groups in society and to broker a re-configuration of interests in the post-shock environment. The post-conflict society in particular, tends to be in a state of flux – old traditions and/or institutions can re-assert themselves, alongside emerging economic and political interests and new actors. Policymakers can address this situation, in part, through measures to jump-start economic activity under more competitive conditions. At the same time, costs of fiscal adjustment need to be distributed evenly across groups and interests. In most cases, this requires substantial reforms in

education, human resource development and socioeconomic policy changes – not just dialogue. Greater efficiency in social spending and safety nets can help to address issues of social exclusion but frequently what is also needed are specific proposals to tackle structural problems related to inequalities in the political system, economic organization and social welfare (Solimano, 2004). An efficient state preserving the common good is fundamental for creating new conditions for rehabilitation as well as development. External assistance and actors can help to mediate competing interests in the short term but social actors must decide for themselves whether to maximize their current share of national income or to trade current compensation for faster growth, productivity and higher living standards. Post-conflict environments are not immune from political struggles over economic structure.

Reconstruction is ultimately a social process and re-building capacity in national institutions requires a nuanced approach. In the post-conflict environment, old patronage systems can reassert themselves – thus, rebuilding institutions as is, also has its pitfalls. Such efforts must be complemented with a focus on mechanisms which can lead to greater liberalization and transparency – such as a strong central statistical bureau, institutions to support agricultural productivity, and others. In general, such technical assistance activities tend to be more productive when linked with the activities of investment projects and other development interventions.

External intervention in the form of international assistance tends to be highly visible in the post-conflict environment and at times can be perceived as overly-intrusive and self-serving. This can raise issues of sovereignty and even the best of donor intentions can go awry. In some cases, external actors can become convenient scapegoats for whatever goes wrong in the post-conflict environment. Thus, a patient and long term commitment to fostering national self-recovery is vital.

Finally, regional actors and interests generally play an important role in post-conflict/post-disaster environments; whether it is

the Diaspora community, political actors from neighboring countries or regional markets. This can be a blessing or a curse. In some post-conflict environments, regional rivalries and players can re-emerge, exerting undue influence on the national re-building process. On the other hand, faster regional integration and cooperation can be a critical element for getting a country back on its feet and boosting competition in protected domestic markets as in the case of post-war Europe. Re-building relationships through trade, economic cooperation and institutional linkages can help to restore public confidence in the future direction of the economy and help society address coordination problems as well as enhance the prospects for stronger growth.

CONCLUSION

In summary, the experience of post-conflict recovery and development in the West Bank and Gaza and Lebanon and post-disaster recovery in Turkey exhibits characteristics that are both unique and generic to other countries in the MENA region. First, controls on fiscal spending were and continue to be an overriding challenge for policymakers in the post-conflict environment. This is compounded by rapid inflows of official and/or private capital flows in the form of assistance, similar to oil windfalls. However, the financial needs of these post-conflict/post-disaster environments tend to loom large and higher liquidity can help to sustain livelihoods while re-engaging private activity. Much depends on the rate at which government activity increases, relative to private entrepreneurship and the balance of efforts between infrastructure reconstruction and eliminating underlying inefficiencies and imbalances. As elsewhere in the region, what is needed is a combination of fiscal adjustment together with supply-side and incomes policies to enhance competition in domestic markets, mobility of factors of production and renewed linkages with the global economy. Second, moving the private sector beyond short term arbitrage activities requires dedicated policy efforts. The example of Turkey's Catastrophe Insurance Pool suggests that new forms of

risk-sharing and public-private partnerships can be a by-product of recovery effects. Third, the necessity of addressing existing horizontal inequalities sooner rather than later cannot be overstated. Increased public employment and benefits, together with the carving out of profitable niches in reconstruction efforts for key groups of interests are not the basis of a new and sustainable social compromise. External actors, markets and resources can help society in addressing such issues as well as brokering peace agreements but they are not likely to be definitive in helping to make the choice between maximizing current compensation or investing in faster growth and higher future living standards.

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Is the MENA Region “Open” for Business?

Relative to other middle-income regions, levels of private investment in many MENA countries have tended to be low, particularly with respect to foreign direct investment and portfolio capital flows. State-owned enterprises (SOEs) also continue to play a significant role, including in industrial activity and infrastructure services. At the same time, a large share of private sector activity has been linked with family firms and generally operating in the margins of high levels of public sector activity and in relatively protected markets. This poses challenges for policymakers in the region seeking to promote private employment and export potential.

This chapter addresses three main questions: What are the characteristics of private sector activity in MENA? What are the main obstacles to firm entry and expansion? Where are key reform efforts needed for improving microeconomic competitiveness for firms?

GROWTH AND THE CLIMATE FOR ENTERPRISE

Sustainable improvements in living standards require not only capital accumulation but raising the productivity of investments. This is where private firms and markets play a critical role. Domestic and external competition spur innovation, technology diffusion and a more efficient use of resources. Empirical studies of developing countries worldwide suggest that a

simple move to market prices and a more competitive business environment which allows firms to respond to these prices can contribute as much as 2 percentage points to annual growth in GDP and has the potential to double the return on investments where distortions have been particularly large (World Bank, 1991).

The problem is that many firms and investors are not able to respond appropriately to price signals because they lack skills, access to information, markets, and face high transaction costs. Furthermore, the price system is frequently used as a means of achieving political and social objectives and in the case of some MENA countries, preserving a delicate socio-economic balance. High levels of public sector intervention and regulation as well as its absence in critical areas (enforcing competition) is frequently a challenge – including in the MENA countries. Entry barriers – in the form of high capital requirements, establishment and capacity licensing, exclusivity arrangements and other policies also promote government enterprise and powerful public and private interests. At the same time, measures such as restrictive licensing procedures can create constraints on firm expansion by preventing firms from reaching efficient scales of production. Exit barriers are created by weak enforcement or lack of appropriate laws such as those relating to bankruptcy and liquidation, along with administratively regulated allocation of key resources such as credit and other physical inputs. Other anti-competitive policies include price controls – under the aegis of consumer protection, as well as administered access to key resources such as credit and capital inputs. Restrictive trade policies, on the other hand, can slow the pace of economic advancement by inhibiting international flows of goods, services, capital, labor and technology. A maze of overlapping regulations and restrictions also raises transactions costs and creates opportunities for corruption.

Thus, reforms of the business environment have tended to focus on creation of an adequate and streamlined legal and contractual framework to enhance property rights protection,

facilitate market transactions and permit competitive market forces to determine prices and wages while allowing firms to enter and exit. An independent, healthy and competitive banking sector can also improve the mobilization and allocation of credit. Public policy can help to extend the reach of credit markets to underserved groups.

A well-functioning infrastructure system can help reduce costs, integrate markets and disseminate information. Factories need reliable access to ports, roads, water and electricity. Such investments make entrepreneurs more productive. When firms have to supply their own power generators, the costs of equipment can rise by 10%–25%, reducing the productivity of the firm (World Bank, 1991). At the same time, the lack of adequate access to infrastructure in rural areas can lead to uneven economic development as rural growth is constrained by the absence of infrastructure for technology, information, transport, and business services. However, the private sector is not likely to supply all of the necessary infrastructure in developing countries since it is partly a public good, hard to exclude non-payers and often subject to economies of scale and natural monopolies. Thus, public involvement in production and provision of many infrastructures services is frequently necessary for development.

Finally, policymakers must be cognizant of the entire set of factors helping to determine the rate of private investment including actual and expected growth of domestic demand, the cost of capital relative to alternative factors of production such as labor, in addition to the state of external demand and global economic conditions as well as demographic factors. In addition, much empirical evidence highlights the importance of investment quality as well as quantity.

FIRM ACTIVITY IN THE MENA REGION

Private investment in MENA economies has traditionally lagged behind other middle-income regions, averaging 15%–20% of GDP.

These ratios are slightly higher for countries such as Morocco. This is in contrast to other developing regions such as East Asia and the Pacific where shares of private investment in GDP were similar to MENA countries in the mid-1980s but more than doubled between the 1990s and 2000s. However, in many MENA countries, shares of private investment in GDP have been increasing over the 2000s and rising by two percentage points of GDP, although the majority of flows are concentrated in non-traded sectors such as real estate, and housing. There have been some recent increases in sectors such as transport as well as banking and tourism. In the 2000s, intra-regional investment flows have also increased, with GCC countries becoming among the largest foreign investors in the MENA region.

Much of the weak growth in private investment through the 1980s and 1990s was linked with slow progress on privatization and selective liberalization vis a vis global trade. During the 1990s, for example, privatization receipts among MENA countries were less than 2% of average GDP relative to nearly 4% in Sub-Saharan Africa and 6% in Europe and Central Asia. Since 2000, however, the asset value of privatizations has more than doubled, from US\$3 billion to US\$25 billion by 2007.¹ Foreign direct investment remained low through most of the 1990s until the 2000s when it increased by nearly 40% in 2006 (World Bank, 2007a) (see Table 1). Net FDI inflows as a share of GDP were over 4% of GDP in 2006 for the MENA region (World Bank 2008a). An important aim of policymakers has also been to attract significant levels of savings held overseas. Estimates vary widely but during the 1990s, amounts ranged from US\$100–US\$500 billion in savings held outside the MENA region (Page, 2003a). For countries such as Egypt, Jordan, and Syria, the estimated total savings of nationals held abroad has typically exceeded GDP.

¹ World Bank privatization database.

Table 1 Foreign Direct Investment in MENA countries

FDI as share of Gross Fixed Investment	1996-1999	2000-2003	2004	2005	2006
Algeria	2.5	6.2	4.3	4.4	5.0
Egypt	5.1	3.8	3.1	24.3	31.9
Iran	0.1	0.0	0.8	0.5	0.8
Jordan	6.8	19.6	23.6	51.0	69.1
Kuwait	25.1	15.4	-23.3	-28.0	-9.3
Lebanon	40.1	44.8	32.3	42.7	89.1
Morocco	7.7	6.9	6.3	22.5	17.0
Oman	2.4	3.8	-0.4	6.7	5.2
Saudi Arabia	2.2	-2.5	-4.5	3.0	-1.1
Syria	4.0	4.0	5.7	9.2	12.3
Tunisia	8.1	11.9	9.3	11.2	41.4
United Arab Emirates	0.0	7.2	35.2	25.3	9.4
Yemen	-11.1	0.2	3.5	-3.7	17.3
MENA (excluding Iraq)	4.3	4.3	4.5	7.2	8.0
East Asia and Pacific	10.4	8.0	7.4	9.4	8.0
Europe and Central Asia	9.3	12.6	17.5	16.2	13.3
Latin America and Caribbean	14.4	14.2	11.7	10.8	8.1
South Asia	3.0	3.4	3.8	4.4	3.4
Sub-Saharan Africa	9.0	17.0	14.2	16.2	13.3

Source: World Bank (2007). *Economic Developments and Prospects: Job Creation in an Era of High Growth*. Washington DC: International Bank for Reconstruction and Development, p. 120.

Like many developing regions, family firms represent a significant share of private sector activity in the MENA region and are among the region's most profitable ventures. Interrelated multi-firm business groups are also common, particularly in the GCC states. Experts estimate that the share of family businesses in Arab countries is more than 80% of the region's total private sector relative to 50% in South Korea and other developing regions (Azzam, 2002a). The number of companies listed on the stock exchanges in the region, estimated at 1200 in 2000, has been relatively small compared with an estimated 600,000

registered companies. A number of these are family businesses which in some cases, are larger and more profitable than publicly-listed companies.

In many countries, family is also an important factor in shaping entrepreneurial activities. A recent survey of 25 women entrepreneurs in Oman, for example, indicated that most female entrepreneurs were relatively older, between the ages of 31 and 40; eight were over 50; and nearly all had paid jobs before becoming entrepreneurs. This is typical of the region as a whole where entrepreneurs tend to be older than cohorts in other developing regions. Most were engaged in service activities such as private education, tailoring, leather goods production, business centers, dentistry, information technology, and tourism. Among the most important factors in terms of the decision to start a business were those related to family experience with entrepreneurship (McElwee and Al-Riyami, 2003).

Firm sizes in MENA countries tend to be small (less than 10 workers) and very large. A common form of proprietorship is a limited liability company. In Algeria for example, less than 3% of firms surveyed in 2000 were joint-stock companies; the majority were small family affairs, mostly closed to outside investors (World Bank, 2002a). In many MENA countries, legal practice also highlights the difficulty at times of limiting liability to the capital and assets of an anonymous entity (Mallat, 2000).

In countries such as Syria and Egypt, the majority of firms are active in industrial sectors such as food processing, textiles, garments and leather, stone and glass, metals and chemicals to a lesser extent. In GCC countries such as Oman, on the other hand there is a relatively smaller concentration of firms in manufactures, with more firms engaged in construction, retail trade, car repair, and oil-related services. The agricultural non-farm sector, overall, is notable in its relatively high concentration of self employed households with varying production levels, depending on available family labor.

Spatial differences in population, and economic activity have been an enduring feature of the MENA landscape and private sector

activity is no exception. In many countries, firms, particularly in industry, tend to be geographically concentrated in coastal areas or along traditional commercial trade routes — as in the case of Jeddah in the Kingdom of Saudi Arabia and Aleppo in Syria. Given their relatively small size and firm structure, MENA firms in many countries also tend to be focused on the local market. In Algeria, for example, a sample of more than 500 firms in 2000 revealed that 60% of sales were focused on the local market less than 1% were involved in export activities (World Bank, 2002a). In countries where exporting is more prevalent across firms, volumes tend to be low. In Morocco, on the other hand, approximately 50% of firms surveyed export about 20% of production (Eifert and Ramachandran, 2004). In the more open economies of the GCC such as Oman, many small and medium-sized enterprises tend to lack national distribution networks and retail distribution and marketing capacity.

Many firms report low levels of productivity, particularly with regard to labor and idle capacity. Unit labor costs, as measured by the ratio of wages to value added at the firm level are relatively high—estimated at 0.54 in textiles, garments and leather in Morocco relative to 0.39 in China and 0.28 in India (Eifert and Ramachandran, 2004a). Excess capacity averages 40% for industrial firms in Syria and less in Morocco. Furthermore, in Morocco the median value of annual wages and benefits per worker was US\$2400 relative to US\$1170 in China, US\$850 in India and US\$790 in Bolivia. At the same time, less than 10% of firms in Morocco offered training to workers relative to 70% in China, 40% in Bolivia and more than 20% in India.

Constraints on Firm Activity

Recent surveys of constraints on firms for the MENA region point to the weak functioning of factor markets related to finance, skills and land, regulatory obstacles such as sectoral licensing and inadequate access to infrastructure such as electrical power, telecommunications, and water.² Above all of these constraints,

however, is macroeconomic and policy uncertainty; with nearly 50% of firms surveyed ranking this as the leading constraint to doing business. In addition, access to credit is a particular constraint for firms in Morocco, Algeria, Saudi Arabia and Egypt, particularly among smaller firms and less so for firms in the GCC states, particularly small-and-medium size enterprises (SMEs). Even in Lebanon and Jordan, which have relatively higher levels of private entrepreneurship, the minimum size loans for SMEs is large relative to other developing regions, creating barriers to entry for smaller firms (see Table 2). On average 40% of firms across the MENA region identify credit access and cost as a major constraint (World Bank, 2008b). Credit to the private sector also tends to vary across countries in the region ranging from over

Table 2 SME Financing

Application	Days to Process SME Loan	Min am't SME Loan (GDP pc)	Fees SME Loan (% GDP pc)
Pakistan	34	234	0.2
Uruguay	31	33	0.0
Thailand	24	3	0.9
Lebanon	16	1155	5.0
Chile	14	122	1.1
Czech Republic	11	5	0.7
Mexico	10	88	1.6
Indonesia	10	1853	1.5
Jordan	8	445	1.0
Brazil	4	8	2.1
Korea, Republic of	3	17	0.3

Source: World Bank (2008a). *Finance for All? A World Bank Policy Research Report*. Washington DC: International Bank for Reconstruction and Development, p. 205–207.

² The following discussion is based on various firm surveys in the form of investment climate assessments produced by the World Bank for MENA countries over the last five years.

60% of GDP (Lebanon, Jordan, Kuwait) to less than 30% of GDP (Algeria, Syria, Yemen) (World Bank, 2008a). About 30% of firms use banks to finance working capital relative to 40% in East Asia and the Pacific and Latin America and the Caribbean. MENA firms also have very high collateral requirements in getting access to loans, relative to global comparators.

Access to industrial land is also a constraint, particularly in countries such as Morocco, Syria, Yemen and Algeria. In Algeria for example, in the early 2000s, nearly 40% of firms surveyed indicated that they had been searching for additional industrial land in order to expand operations and most had been searching for more than five years. Similar difficulties arise for firms seeking available business offices and commercial buildings. More generally, markets for land tend to be segmented with large price differences between publicly and privately-owned land. In the GCC states, such as Oman, this is a particular issue for firms located in the capital city of Muscat, where most of the economic activity is clustered. At the same time, large tracts of serviced land lie idle either because they belong to, in some cases, bankrupt public enterprises or because private owners are holding onto them for speculative purposes. Initial land distribution has been subject to administrative controls and there is very little secondary trading. Less than 50% of industrial land is property titled in Algeria, for example – a relatively common phenomenon in MENA countries (World Bank, 2002b).

Firm registration procedures and minimum capital requirements have traditionally been high under the auspices of preventing potential fraud or “fly-by-night” entrepreneurs. Furthermore, high upfront payments to enter a particular industry or business suggests the existence of some elements of monopoly profit. In practice, such measures prevent entry and innovation.

Existing firm surveys indicate that licensing and inspection rules and enforcement tend to be particularly onerous and unpredictable, relative to company registration procedures.

Multiple public organizations tend to be involved in regulating firm activity, generating a large amount of paperwork, contradictory requirements frequently between or within public entities, and opaque procedures which are subject to different interpretations. In Egypt, for example, both industrial and commercial licensing involves numerous steps to secure a permit or build a facility and licensing authority tends to be dispersed across government entities with a larger portion of final approval for many industrial projects in the hands of local authorities with a high level of autonomy. Depending on the type of project, investors in Egypt may interact with as many as 18 different ministries and public authorities in obtaining construction and operating licenses. Licensing is also an issue even in the more laissez-faire economies of the GCC. In Oman, anecdotal evidence suggests that a tourism operator has to file papers to register two businesses one fictitious, one real, in order to manage licensing requirements which have included, among others the need to secure a bank guarantee before commencing operations.

Excessive regulation also creates more opportunities for corruption and illegal practices and this is a constraint for firms region-wide. While data is unreliable, due to the low response rate by many firms in enterprise surveys, it is estimated that informal payments for obtaining access to public services can be substantial. Obtaining a new phone line can cost over 10% of per capita GDP, while getting a construction permit can cost as much as 33% of per capita GDP. Estimates for side payments to public officials required to “get things done” are estimated at more than 13% of per capita GDP in Algeria. More often than not “wasta” or personal connections with public officials tend to pay handsomely as well – and is identified by nearly 50% of firms as being important for getting phone lines installed or repaired; connections to electricity grids and obtaining construction permits to a lesser degree (World Bank, 2002c).

In a number of MENA countries, there is somewhat of a divide across firms with regards to constraints between more

dynamic and outward oriented firms relative to those which are more focused on the constraints of the domestic market. In Morocco, for example, exporters tend to be more constrained by access to land and skills, whereas non-exporting firms are more concerned with unfair competition and the informal sector. Similarly, in Algeria, newer firms tend to be more concerned with factors constraining expansion such as access to land and credit than older firms which tend to be more concerned about unfair competition. In general, high levels of protection to some firms and regulatory obstacles for others has also contributed to the proliferation of informality, estimated at between 20–40% of economic activity in MENA countries and particularly in the post-conflict environments such as Lebanon (Schneider, 2002).

For the most part, MENA countries have good coverage in infrastructure but relatively low quality services in some sectors and high levels of unpredictability. Governments remain the main providers of many infrastructure services – both owning and operating network industries such as power, air services, telecommunications, ports, rail, and others. Ports and stevedoring services are a particular challenge in many MENA countries and tend to be dominated by public monopolies. Electricity network coverage tends to be high but reliability can be a problem. In 2001, for example, firms in Algeria reported average power outages of nearly 14 days; with the result that nearly 30% of firms report owning a power generator, compared with 16% in China. This is particularly costly for smaller firms (World Bank, 2002d). Estimated output losses from power interruptions in some MENA countries are also high, and three times the level of firms in East Asia and the Pacific.

With regard to commercial law and practice, much of commercial law is modelled on civil law traditions (Mallat, 2000). However, in particular areas of the commercial codes such as commercial agency, the somewhat unique interpretation applied in the MENA content has worked to protect the interests of importers and merchants against local and foreign competition

(Mallat, 2000). In the MENA context, agency covers all contracts between foreign manufactures and local importers, and in contrast to typical common law jurisdictions, for example, includes special statutory regimes, requirements for registration and compensation to the commercial agent following lawful termination of the agency agreement. Thus, in a number of countries, a principal is forced to retain an agent and compensation for termination of the agency as a matter of principle has little to do with the length of a contract or its terms. The necessity of registering the agency as well as the assimilation of distributorship and agency are also common features. Both the courts and administrative agencies ensure that the system is centralized and protected so that any new agent would be barred or deterred from carrying on the agency until full compensation was paid to the previous agent. In the UAE Supreme Federal Court, for example, where commercial agency has had constitutional protection, a case of an exclusive agent who had the goods of a parallel importer of computer equipment impounded was upheld by the Court on the basis of a combination of arguments invoking textual arguments (i.e the *Hadith*), economic justifications, and legal references (mutually beneficial contracts) (Mallat, 2000a).

For most MENA countries, contract enforcement is also a challenge. In 2004, MENA firms had to 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 (World Bank, 2008d). Insolvency and bankruptcy laws have severe penalties, in some cases, for bankrupt entities including the relinquishing of some civil rights even in the absence of fraud. In other countries there are growing gaps and conflicting provisions in historical business laws, *Sharia* principles and new financial sector laws, particularly in the banking sector.

Public Policy for the Private Sector

Recent reforms have targeted streamlined entry into the business environment, along with restructuring and privatization of SOEs

Table 3 Business Climate Reform Indices (2003–2006)

	Starting a Business	Hiring and Firing	Enforcing Contracts	Closing a Business	Overall Business Reform
Algeria	58	47	61	13	37
Egypt	68	45	95	7	59
Iran	25	61	2	2	2
Jordan	95	57	35	1	41
Kuwait	37	8	69	16	16
Lebanon	45	64	0	86	46
Morocco	100	2	79	60	76
Oman	1	78	9	74	27
Saudi Arabia	73	23	88	57	75
Syria	49	97	58	0	52
Tunisia	48	49	38	53	40
United Arab Emirates	22	73	45	5	20
Yemen	42	39	31	49	26
MENA	51	49	47	32	40
East Asia and Pacific	54	36	47	51	46
Europe and Central Asia	58	52	62	48	59
Latin America and Caribbean	53	52	47	55	54
High Income OECD	49	54	45	49	49
South Asia	36	27	46	31	24
Sub-Saharan Africa	42	53	48	59	51

Source: World Bank (2007). *Economic Developments and Prospects: Job Creation in an Era of High Growth*. Washington DC: International Bank for Reconstruction and Development, p. 138.

Notes: A country with a reform index of 90 made very strong progress in the worldwide cumulative frequency distribution between 2003 and 2006.

and promoting private participation in infrastructure services provision (see Table 3). With regard to improving the business environment, the prevailing approach has been to (i) simplify business registration and lower minimum capital requirements; (ii) encourage investors through financial incentives – i.e., subsidized loans, tax holidays, and others; (iii) provide access to infrastructure – industrial parks and free zones (iv) finance

training of young workers and would-be entrepreneurs. In a number of MENA countries such as Egypt and Tunisia, for example, the creation of one-stop-shops, together with investor facilitation, have helped to provide access to land and eased business regulations.

Targeted programs to support entrepreneurs are also common in a number of GCC countries such as Oman. Policy measures include provision of subsidized loans through industrial banks, tax holidays and low corporate tax rates, financial incentives for exporters and exemptions from customs duties and others. Support to entrepreneurs is offered through generous incentives under the Foreign Capital Investment Law and the Law for the Organization and Encouragement of Industry, the Self Employment and National Autonomous Development (SANAD) program, the Fund for Development of Youth Projects, the Omani Chamber of Commerce and Industry, *Intilaaqah* created by international oil companies which encourage would-be entrepreneurs and the Omani Center for Promotion and Export Development. The challenge with these programs includes (i) the extent to which they are focused on creating employment as opposed to promoting risk-taking entrepreneurial ventures; (ii) whether they offset rather than remove obstacles in the business environment such as licensing requirements; and (iii) if they offer needed support in managerial and financial training for entrepreneurs.

When such “active” policies to promote private sector development fail to address underlying problems—they tend to produce unintended outcomes. In Jordan, for example, the Qualifying Industrial Zones have created a large number of jobs — including for emigrant labor. In the GCC countries, many subsidized loan programs which provide financing to young graduates effectively counter the activities of venture capital funds which offer technical expertise and market disciplines yet must compete with subsidized financing schemes. Private firms everywhere also compete and cooperate at times with subsidized state-owned enterprises.

Preliminary evidence suggests that the degree of incumbent protection remains an issue. An empirical assessment for 28 industries

in 41 countries from 1981–1997 including MENA countries Egypt, Jordan and Tunisia, for example, suggests that a 10% increase in entry regulations is correlated with a nearly 6% increase from the median price-cost markups. Similarly, a 10% reduction in import penetration is associated with an increase of 1.4% in the mark-up. This seems particularly the case in MENA countries such as Jordan (Hoekman *et al.*, 2001a). In Lebanon, the combination of an import cartel and a domestic oligopolistic structure has contributed to significant markups as a result of barriers to entry; estimated at 10% over marginal cost relative to tariffs 5% (Dessus and Ghaleb, 2006).

In practice, the extent to which ongoing efforts to streamline the business environment are bearing fruit in terms of enhancing contestability is not clear. Historical evidence suggests that periods of higher growth can make sustaining barriers to entry more difficult by raising the costs of enforcement. Thus, barriers to entry may be swept away more easily when market forces are making discrimination and protectionism costly to employers and firms. More generally, the extent to which market structure is changing and how higher growth prospects affect real and perceived minimum thresholds for competitive entry is a promising area for future research.

A strategy to foster private enterprise requires first and foremost, reducing distortions that restrict competition. With high levels of existing distortions, such measures in and of themselves have significant potential for raising productivity and long-term growth. Secondly, public policy can encourage the development a diverse range of financial and non-financial services to support private sector growth. It cannot, however, mandate entrepreneurship by degree. And many of the policy measures needed for system-wide adjustment are typically not implemented by market forces and actors. (Frydman and Rapaczynski, 1994). Matching grants, voucher programs, and public-private enterprise funds can be important catalysts for enhancing access to new markets, development of new products and innovation in organizational structure. There is also a need to limit and separate various functions of

public administration – in the areas of policy design, regulation, monitoring and control and implementation of policies governing private sector activity.

Raising the returns to private investment is difficult in an environment characterized by high government intervention in regulation as well as production and retail activities. This is complicated, at times, by the difficulty of drawing clear institutional boundaries between the domains of public and private activity. Enhancing formal distinctions between “public” and “private” spheres which are separated in a binary sense and can guide and limit political and economic practice are a priority for policymakers (Mitchell and Manning, 1991). In this regard, accelerated progress on privatization of state-owned enterprises can help. Most countries in the MENA region had a late start at privatization relative to other developing regions. Between 1988 and 1995, governments in developing countries sold state enterprises totalling US\$130 billion – in the MENA region the total was US\$3.4 billion (Saghir, 2001a). In the case of Tunisia, for example, one of the initial problems was a lack of clarity on the extent of public assets – related to a combination of minority shareholdings, subsidiary agreements, ownership by government-controlled banks and widespread public investment in nearly every aspect of economic activity. By the late 1980s, enterprises in which the government had an equity share generated over 31% of GDP and 40% of total investments; total employment (Page, 2003b).

Between the mid-1980s and the mid-1990s, Tunisia privatized approximately 45 companies; primarily through private placements. By 1994, a new legislative framework was introduced allowing the government to sell shares on the stock market while allowing strategic investors to participate in large, sensitive transactions. By the end of 1996, slightly more than half of eligible companies had been privatized, including the sale of 20% of shares of the national airline through an IPO (Page, 2003b). By the late 2000s, privatization proceeds totaled US\$3 billion (World Bank Privatization Database) (Page, 2002b). However, many public

enterprises remained in the public sector and the process whereby privatization transactions were carried out was somewhat *ad hoc*, opaque and not well understood (Page, 2003). Institutional frameworks changed from time to time and there has been a general hesitancy to make public the list of enterprises to be privatized to minimize potential resistance from workers. This was complicated by a web of direct ownerships, cross-holdings and mixed public/private ownership some requirements that new owners had to maintain existing staffing levels in privatized firms.

In contrast, transparency and broad-based participation were hallmarks of Morocco's privatization program, which was widely considered to be one of the most successful in the region. With an estimated 800 state-owned enterprises and public/private ventures across a wide range of sectors, SOEs generated about 12% of GDP and employed about 6% of the urban labor force. In the late 1980s, Morocco introduced an institutional framework for privatization along with privatization programs authorized by an Act of Parliament and a privatization minister responsible for overall program implementation. Transactions occurred through placements on the Casablanca Stock Exchange as well as through competitive bidding. In 1998, the government established privatization bonds as public debt instruments with a maturity of three years which guaranteed bondholders preference in participation for future privatization transactions. These bonds generated significant support for the privatization effort, effectively raised US\$1 billion and were converted into shares for privatization of the refinery in 1999 (Page, 2003b). There were no legal mandates regarding employment guarantees but in some cases, employees were accorded preference in buying shares. This was combined with the lack of restrictions on foreign ownership and foreign investment in privatized firms. Over the 2000s, the value of privatization was nearly US\$8 billion (World Bank Privatization Database).

In Egypt, the size of the public enterprise sector has accounted for a large share of GDP and the government has remained active in sectors beyond utilities and heavy industries including food

processing and retail distribution. Privatization largely stalled until the mid-1990s with an estimated US\$800 million in privatization revenues (Page, 2003c). By the latter half of the decade, there were another 33 companies slated for privatization to strategic investors and initial public offerings for an additional 12 firms. Public sector holding companies active in the 1990s undertook restructuring of SOEs, effectively streamlining operations and shedding redundant labor through early retirements. At the same time, however, privatization tended to be focused initially on key sectors-including metallurgy, chemical industries and food industries.

Many of the problems which surfaced were typical of other MENA countries and included the fact that many transactions did not ultimately alter the governance structure of public enterprises since a large number of transactions were structured as minority placements through the capital market, liquidation or sales of assets and employee ownership schemes. In many cases, the privatization strategy lacked coherence in terms of identifying criteria for those enterprises brought to the market and relying heavily on the decisions of individual holding companies. A number of holding companies chose to privatize loss-makers in order to retain the most profitable enterprises. Finally, steps to privatize telecommunications and power infrastructure in some countries proceeded slowly because of lack of required changes in legislation, putting in place appropriate regulation and addressing pricing issues.

In the area of promoting private participation in infrastructure, recent efforts are demonstrating results³; however, levels of investment in projects with private participation are roughly

³ Public-private partnerships in infrastructure are arrangements in which the private sector provides services to the public sector or contributes to an economic activity on behalf of or under the control of the public authority for a fixed period of time. Unlike public procurement, PPPs are designed to be output-based in terms of compensation and the private sector assumes substantial financial, technical, and operational risks. When carried out successfully, these arrangements have the potential to not only improve the level and quality of infrastructure services often at lower cost, but they are also a vehicle for developing the private sector and financial markets.

Table 4 Investment in Infrastructure with Private Participation 2000-2005 (US\$million)

	Telecoms	Energy	Transport	Water & Sanitation
Algeria	3442	962	—	510
Egypt	3361	678	821	—
Iran	695	650	—	—
Jordan	1589	—	—	169
Lebanon	138	—	153	—
Morocco	5993	1049	—	—
Oman	1047	1364	474	—
Saudi Arabia	8537	—	190	52
Syria	583	—	—	—
Tunisia	751	30	—	—
Yemen	377	—	—	—
MENA	19221	4883	1498	679
East Asia and Pacific	29638	26680	14383	10090
Europe and Central Asia	81682	25578	10237	2684
Latin America and Caribbean	80778	51388	17442	6716
South Asia	28856	10275	4012	2
Sub-Saharan Africa	19139	5424	1899	43

Source: World Bank (2007). *World Development Indicators*. Washington DC: International Bank for Reconstruction and Development, p. 266.

similar to levels found in Sub-Saharan Africa with the exception of the water sector (see Table 4). The experience of the GCC states, for example, suggests that increasing private participation in power generation can improve managerial commitment, raise labor productivity and improve the quality of services as well as improve profitability. In the case of recent power plant and public transport privatizations in Bahrain, labor and capital costs may have declined by more than 30% along with considerable progress in improving service quality and provision. However, challenges remain. In some cases, PPPs in infrastructure have been linked with partial reforms that tend to stall the process, along with lack of competitive pressure to improve performance,

particularly in the case of a Single Buyer Model. Stop-and-go bidding processes with multiple changes coupled with unclear and lengthy decision-making processes remain a challenge (Iskander, 2006).

There are also emerging strategies to deal with these challenges. The experience of Bahrain and Abu Dhabi, for example, point to the importance of building credibility in the PPP process with international investors while also addressing local concerns and building stakeholder support. Insistence on formality, transparency and ensuring competition throughout the process has also proven to be critical. In the case of Abu Dhabi, for example, such initiatives were part and parcel of a comprehensive restructuring of the power sector to promote competition and to regulate remaining monopolies to improve performance. The establishment of an independent regulatory authority, along with stable and transparent processes, were supported by credible appeal processes. In addition, there was extensive consultation with stakeholders throughout the process.

In general, successful privatizations have tended to coincide with a number of the following measures (Saghir, 2001a). First, there is a focus on upstream economic, structural and policy issues; financing options are addressed later on. This focus has included unbundling and vertically separating potentially competitive elements from natural monopolies prior to privatization. Such structural changes prove to be much more difficult after privatization has occurred, when there are private shareholders with contractual rights. Policymakers also tend to succeed where maximizing revenue is not the primary objective; rather, economic efficiency has been the driving force. In addition, efforts to deregulate and enhance competition wherever possible are equally important.

Second, privatization tends to proceed more smoothly when labor issues are addressed upfront and safety nets and retraining opportunities are provided early on. Fears of layoffs have stalled privatization efforts in nearly every MENA country; the solution is not to postpone privatization or force private investors to maintain employment levels. Dealing fairly with redundant workers through

targeted severance payments, retraining, relocation grants and/or small business promotion are all options. Furthermore, public participation and support can be encouraged through public share offerings, employee share ownership, and voucher schemes.

Establishing a regulatory framework or mechanisms early on can build credibility with investors as well as consumers. This is particularly critical for MENA countries where there has been a need to formulate a transparent and universally-applicable set of policies under which firms are expected to operate. The practice to date has been to develop regulatory rules and implementation on a case by case basis. Clarity and predictability on issues of pricing, scope of competition, performance criteria, monitoring arrangements and service quality expectations are crucial. It is important to distinguish between what is a policy and what is a regulation – so that there is no confusion regarding the role of the sector ministry or that of the regulator. Furthermore, it is critical to focus on regulatory priorities such as the interconnection price paid by new long-distance providers for fair access to the local network. For electricity, key areas are the transmission price paid for use of the local grid and how costs of new capacity are allocated across power generators and distributors (Saghir, 2001a). A regulatory mechanism or regulatory bodies are particularly critical where competition is insufficient. However, it is important to avoid potential conflict of interest situations where SOEs and ministry staff are transferred to newly formed regulatory agencies. The overall policy framework also tends to be important for helping to develop and enforce competitive discipline and market forces in monopoly situations. Pricing regimes which include incentives for efficiency and expansion have proven to work better than regulatory penalties and sanctions.

Third, it is important to emphasize the necessity of honoring contracts and maintaining transparency and fairness in procurement processes. The private sector needs assurances of property rights protection, easy transferability of foreign exchange, and expeditious dispute settlement systems. Without these, investors will demand higher returns to compensate them for higher risks. Policymakers must also ensure that the public procurement process

is flexible but transparent. Bidding processes should be fully transparent and the terms of the privatization or proposed concession must be adapted to the complexity of project finance transactions.

Fourth, risks also have to be addressed and the party best able to manage a risk at least cost should mitigate this risk. Unbundling various risks to determine which participant is best placed to manage which risk at lowest cost can help. Government guarantees are also important, particularly in the case of infrastructure provision, where the success of a project depends on a wide variety of factors. Effective guarantees can be a powerful factor for encouraging private participation. Finally, issues of pricing and tariffs need to be addressed, so that tariffs can be adjusted toward economic costs through clear adjustment mechanisms and the elimination of cross-subsidies. These must be replaced with targeted subsidies to the poor if necessary.

THE CHALLENGE OF “GOING PUBLIC”

Thus, in many developing countries including those in the MENA region, family firms or concentrated ownership firm structures tend to be linked with weak minority shareholder rights and in some cases the lack of well-functioning financial markets. More generally, the costs and benefits of the legal form of enterprise tends to be endogenous in a country's institutions (World Bank, 2008b). Ownership structure among firms also influences political economy dynamics (Rajan and Zingales, 2003). As large family-owned companies begin to go public and increasing numbers of firms become integrated with global markets, there will be a need to strengthen corporate governance and disclosure requirements. Determinants of good corporate governance are both internal and external to firms. External factors include the domestic business environment in particular, laws that regulate market performance (i.e. bankruptcy) as well as the efficiency of the financial sector, the degree of contestability in product and factor markets and the capacity of supervisory and regulatory bodies (i.e. Capital Market Authority and Stock Exchange). Other institutions of a self regulating nature include

professional associations that enforce various codes of conduct for market participants such as lawyers, accountants and others. Factors internal to the firm include rules and principles for decision making include rules and principles for decision making and division of responsibilities among management, the board of directors and shareholders (Iskander and Chamlou, 2000; Fawzy, 2003). With regard to internal determinants of corporate governance an assessment of Egypt’s corporate governance rules in the early 2000s, for example, indicates that considerable progress has been made in the areas of shareholders rights, disclosure and transparency as well as responsibilities of boards of directors. However, more work is needed in areas such as protecting minority shareholder rights, strict supervision of board performance as well as emphasizing disclosure of ownership details and increasing the effectiveness of supervisory bodies (Fawzy, 2003). At the same time, there are lessons to be learned from successful transitions to markets – studies of firm behavior across a wide range of countries during the 1990s suggest that “going public” in an environment of weak corporate governance standards can lower valuation – thus, there are significant private and social benefits to improving corporate governance standards and accountability. An important factor determining whether firms choose to incorporate or remain controlled by a closed group of family members is the state of the financial sector and the general functioning of the financial system.

FINANCIAL SECTOR DEVELOPMENT

For many firms in the MENA region, access to credit remains a critical issue. More generally, well-functioning financial markets are important for promoting long-run economic growth. Evidence from a wide range of developing countries points to the interrelationship between well-functioning financial institutions and markets, more efficient investment and thus, higher long-run growth and improvements in living standards. Financial market imperfections can also play a significant role in perpetuating inequalities – both vertical and horizontal – in part, through restricted access to households

and firms. In general, financial markets when they work well, mobilize savings and help to allocate resources for investment. Financial systems overall also monitor managers and help to exert corporate control by allowing markets to price companies according to their expected performance. At the macroeconomic level, similar forces apply through sovereign debt markets. Financial markets can also play an important role in enhancing the economy's ability to respond to external shocks by providing the means for households and firms to smooth consumption during downturns and firms to reallocate capital and labor when faced with structural changes.

In many developing countries, however, including those in the MENA region, the financial sector is subject to government imposed restrictions and price controls including, at times high required reserve ratios, subsidized or directed credit, collusive contracts between public enterprises, private investors and banks as well as ceilings on loan and deposit rates. Such policy measures are correlated with lower per capita growth of over one percentage point per year (Creane *et al.*, 2004a). The MENA region tends to rank relatively well on measures of overall financial development relative to other middle-income regions, although not as well as the high-performing economies in East Asia. A broad overview of financial market development in the region highlights areas of strengths and weaknesses (see Table 5). In general, an overriding characteristic of financial markets is that they are thin and tightly regulated, with high levels of government ownership and a limited role played by market forces (Nashashibi, Elhage and Fedelino, 2001).

With regard to monetary policy, for the most part, interest rates are technically freely determined although heavy involvement by public entities in practice, prevents complete market determination of interest rates and credit allocation. Most countries have some open market operations, although the incomplete development of secondary markets for government securities hinders the broader use of open market operations by central banks. Most financial systems are dominated by banks and banks play a critical role in the process of mobilizing savings, funding investment opportunities, monitoring managers and diversifying risk. The banking sector in

Table 5 Financial Sector Development in MENA Countries (2002–2003)

	Fin. Dev Index & Ranking	Banking Sector	Non-bank Financial Sector	Regulation & Supervision	Monetary Sector & Policy	Financial Openness	Institutional Environment
Bahrain	7.7	7.3	5.0	9.3	7.8	8.0	8.9
Lebanon	7.0	8.7	3.3	7.7	8.3	7.0	5.2
Jordan	6.9	7.1	6.3	8.7	6.5	8.0	5.4
Kuwait	6.8	7.4	5.0	8.0	6.6	8.0	5.9
United Arab Emirates	6.6	7.9	5.0	6.7	5.8	8.0	5.9
Saudi Arabia	6.4	7.8	3.3	8.0	6.4	8.0	4.2
Oman	5.9	6.1	5.0	8.3	4.2	8.0	4.8
Qatar	5.7	6.8	0.7	6.7	5.7	8.0	6.3
Tunisia	5.6	7.7	4.7	5.3	4.5	5.0	5.0
Morocco	5.5	5.6	4.7	7.3	6.8	4.0	3.8
Egypt	5.4	6.0	6.3	5.3	5.6	6.0	3.2
Yemen	3.9	4.1	0.7	3.3	5.0	9.0	2.2
Algeria	3.2	2.5	3.0	3.5	4.4	4.0	2.3
Iran	2.5	1.9	3.3	4.7	0.5	4.0	2.4
Syria	1.1	1.9	0.7	0.0	0.9	0.0	2.4
Libya	1.0	1.3	0.7	2.0	0.5	0.0	1.0

Source: Creane, S, R Goyal, A Mobarak and R Sab (2004). Financial Sector Development in the Middle East and North Africa. *IMF Working Paper Series* WP/04/201, p. 13.

Notes: Very low = below 2.5, Low = 2.5–5, Medium = 5.0–6.0, High = 6.0–7.5, Very High = over 7.5.

Data are based on a subjective weighted index using the survey of IMF country economists as well as data from International Financial Statistics, World Economic Outlook, World Development Indicators, International Country Risk Guide and the Heritage Foundation.

most countries is well-developed, particularly in the GCC countries, Jordan and Lebanon. In countries such as Iran, Algeria, Syria, and Yemen however, public banks tend to dominate, resulting in directed credit, losses and liquidity problems, along with wide interest margins. In a number of countries, non-cash transactions such as credit card use or ATM access are limited.

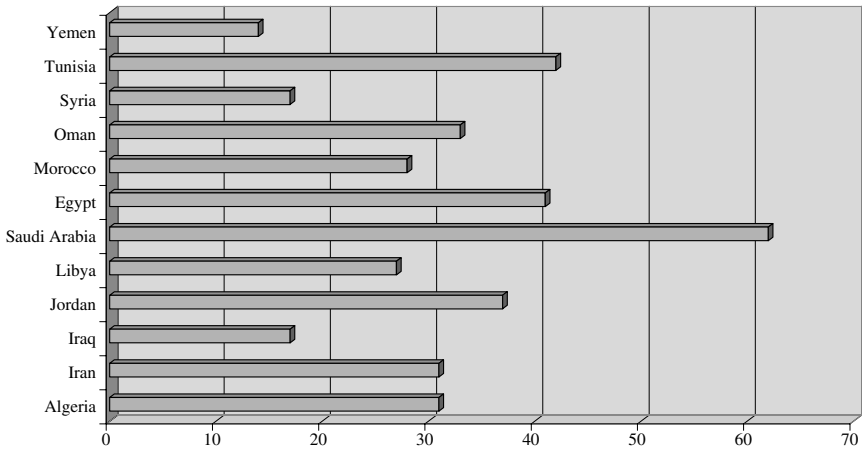
The non-bank financial sector is critical for enabling firms and households to raise finance in cost-effective ways, mobilize capital and others. Highly liquid stock markets (that is, stock markets characterized by the ease of transactions not just size of stock markets) are an important complement to banking sector development in promoting growth. Non-bank financial sectors include stock markets, corporate bond markets, insurance companies, pension funds, and mutual funds all of which tend to be less well-developed (Creane *et al.*, 2004a). Stock markets in particular, have traditionally been characterized by low levels of liquidity and relatively few listings. Government ownership of utilities and other enterprises have deprived the market of an important source of new issues and contributed to excess volatility.

Financial openness relates to the degree to which the financial system can intermediate funds across borders. Nearly half of MENA countries maintained restrictions on the repatriation of earnings and the domestic purchase of foreign currency in the 2000s. Most countries have a pegged exchange rate arrangement with a large number of currencies pegged to the US\$.

Challenges for Further Development of MENA's Financial Systems

Overall, measures of financial intermediation suggest that the MENA region ranks relatively well compared with other middle-income regions. The ratio of M2/GDP has been more than 60% relative to 47% for other middle income regions. Bank assets to GDP are also high, averaging 75% and ratios of private credit to GDP are nearly 40% (World Bank, 2006a). However, there is considerable segmentation in terms of use and access to finance. Access to banking services

tends to be unevenly spread across firms and households; less than 40% of households have an account with a financial institution (see Fig. 1) and as noted earlier, a large proportion of firms report access to and cost of capital as being a problem. Relative to other middle



% Adult Population with Access to Account with Financial Intermediary

Algeria	31
Iran	31
Iraq	17
Jordan	37
Libya	27
Saudi Arabia	62
Egypt	41
Morocco	28
Oman	33
Syria	17
Tunisia	42
Yemen	14

Source: World Bank (2008) *Finance for All? A World Bank Policy Research Report*. Washington DC: International Bank for Reconstruction and Development. p. 190-91.

Fig. 1 Share of Adult Population with Access to Account with Financial Intermediary (%)

income regions, for countries, such as Egypt, geographic and demographic access to banks is limited. Relative to the Dominican Republic, for example, which has a roughly similar level of per capita income, banking penetration in Egypt has one fifth the level of geographic accessibility and about one half the level of demographic accessibility (World Bank, 2008c).

Looking at the banking sector in greater detail, there are a number of characteristics which tend to prevail across MENA countries. Shares of public assets in the region's banking sector are high, estimated at 42% of bank assets relative to 20–25% in other middle-income regions (World Bank, 2006b). Banks also appear to serve a relatively wealthy segment of the population and benefit larger firms. Relative to GDP per capita, average loans and deposits are large. For firms seeking access to loans through the banking system, collateral requirements are high; particularly for new firms in Algeria for example. Older firms, regardless of size, type or ownership are better able to access credit and collateral requirements. For private firms, collateral requirements were 194% of the loan amount (World Bank, 2002e).

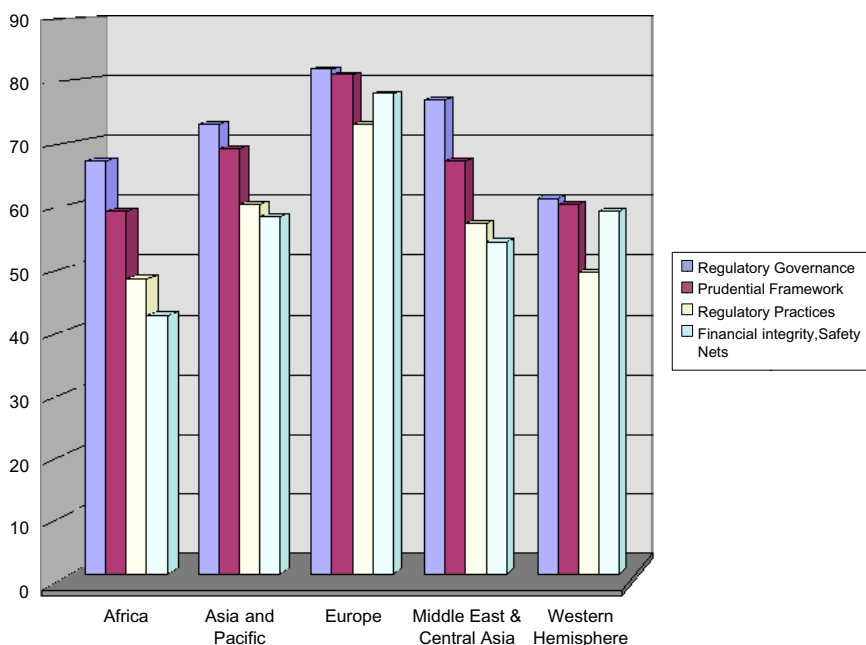
On a global scale, banks in the MENA region have traditionally been small, with the combined assets of Arab banks in 2000 estimated at US\$575 billion and less than the assets of the HSBC Group valued at US\$600 billion in same year (Azzam, 2002b). Relative to US banks, Arab banks have also controlled dominant shares of domestic financial services and the majority have traditionally derived most of their revenue from taking deposits and extending credit, relative to fees from selling services such as credit cards, mutual funds and providing custody and other services. In addition, concentration ratios are high. In Saudi Arabia, for example, two banks have traditionally held almost 50% of banking sector assets. In Jordan on the other hand, the top five banks controlled 80% of assets. In Egypt, four state banks held 50% of total assets for many years and controlled most of the retail network (Azzam, 2002b).

In many countries in the region, bank assets have been growing faster than national economies; in 2000, for example, whereas economic growth rates averaged 3.5% among Arab countries, loans and advances increased by nearly 10% (Azzam, 2002b). In the GCC

states in particular, the surge in deposits, together with improved lending techniques have boosted growth and profitability. From an estimated US\$12 billion increase in profits (before tax) among Arab banks in 2004, US\$9 billion of this was concentrated in the GCC countries. GCC countries have also enjoyed the highest return on average assets within the MENA region at 2.4% relative to less than 2% in upper middle-income regions (World Bank, 2006c). GCC banks have traditionally maintained high capital-to-asset ratios and low cost-to-income ratios. The National Bank of Kuwait, for example, had one of the lowest cost-to-income ratios in the region, at 33% in 2000 (Azzam, 2002c). Regulation and supervision of the banking sector has exhibited "hands on" supervision where officials have considerable power to not only investigate banks, and take action, but also the power to intervene and restructure banks, remove management, and supersede shareholding rights (World Bank, 2006d).

Banking supervision is ranked relatively highly with regard to compliance with international standards and codes (Figs. 2, 3). With regard to banking supervision, MENA countries rank behind East Asia and the Pacific although less highly on insurance and securities (Cihak and Tieman, 2008a). In some countries, banks are relatively restricted in the range of activities allowed within the banking system most notably in countries such as Libya, Lebanon and Tunisia (World Bank, 2006d).

As noted earlier, in recent years, there has been a growing gap between the growth of financial assets and productive investment opportunities. Since 2000, for example, deposits in the region's banking sector have grown rapidly, rising in real terms by an average of 15% per year between 2002 and 2005. This has been channeled into rising consumer lending, increasing by nearly 60% per year in countries such as Saudi Arabia from 2004–5. Much of this was channeled into the region's stock markets where margin lending was estimated to account for between 5–15% of total bank loans, notably in the GCC. Consumer lending, real estate ventures and corporate businesses benefited significantly from the increase in banking sector assets. However, increased exposure



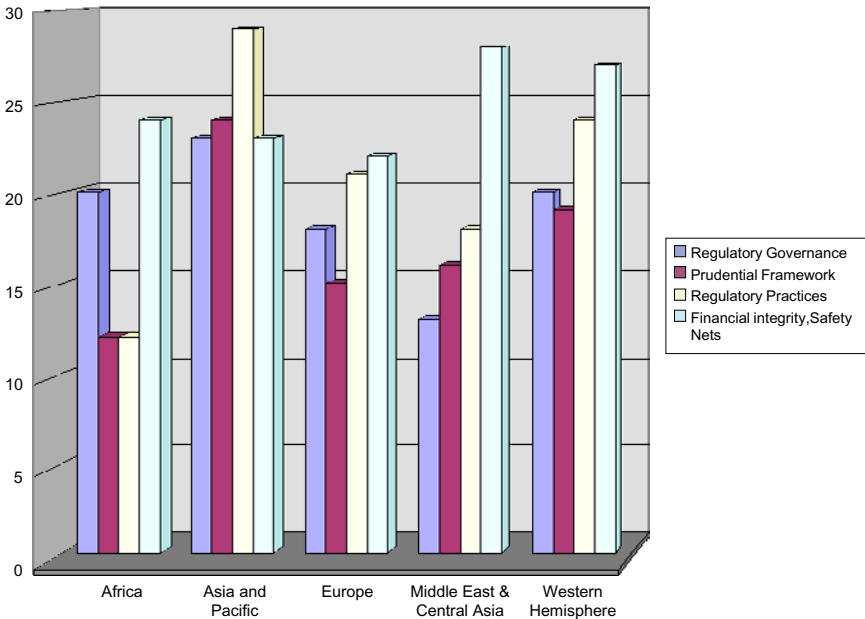
Source: Cihak, M and A. Tieman (2008). Quality of Financial Sector Regulation and Supervision Around the World. IMF Paper Series WP/08/190, p. 34.

Note: Calculation based on IMF standards and codes.

Fig. 2 Banking Sector Supervisory Quality (Average Ranking)

to high-risk segments in consumer lending and real estate has also made the banking system vulnerable to economic shocks and speculation. In Bahrain, Oman and Qatar, personal loans and construction lending increased to 53%, 44% and 37% of total lending, respectively. For the GCC in particular, real estate expansion has been particularly excessive over the 2000s. In Qatar, for example, construction permits increased 23% in 2004 while the annual value of traded land permits in Bahrain rose by more than 70% between 2002 and 2004. In some cases, this translated into increased housing and rental prices and there has been evidence of localized speculation with underdeveloped real estate lots traded hands on secondary markets (World Bank, 2006f).

Given that the asset base of many banks in MENA countries is growing more rapidly than the economy at large, banks are



Note: Calculation based on IMF standards and codes.

Fig. 3 Banking Sector Supervisory Quality (Standard Deviation)

becoming less constrained by the size of the capital base than by the domestic market they are operating in. Faster progress on medium term adjustment measures, particularly in the areas of privatization and trade liberalization would help to address this gap, along with greater competition and lower barriers to finance for a broader range of clients. Entry, growth, innovation, equilibrium size and risk reduction at the firm level are all helped by access to and use of finance. In turn, broader access to finance also transforms the structure of the economy by affecting different firms in different ways, with political economy implications. While small firms' financing constraints can decrease as a result of greater liberalization, larger firms' financing constraints can actually increase in some cases due to loss of preferential access (Laeven, 2003; World Bank, 2008b).

There is also a strong incentive to expand globally and regionally. A more integrated regional financial market could help to address

issues of scale and overbanking. Initiatives are already underway to develop regional platforms for a number of GCC banks seeking to operate in other GCC or MENA markets. During the 1990s, the National Bank of Kuwait for example expanded its presence in Lebanon as well as Egypt on the basis of growing retail, corporate and trade financing opportunities (Azzam, 2002d). Greater liberalization in the global financial market will also create further pressures for consolidation at the regional level, allowing banks to reduce operating costs, minimize duplication, and spread technology expenses over a wider base.

Privatization of state-owned banks is a growing trend in the region notably in Egypt and Tunisia. Furthermore, entry by foreign-owned banks can bring capital, technology, know-how and a degree of independence from the local business elite. In many developing countries, foreign banks can increase competition for large customers and drive other banks to focus on segments previously neglected. They are also associated with lower interest rates and better access to long term loans among firms (World Bank, 2008b).

Relative to other middle-income countries, stock markets in the MENA region have traditionally been small, accounting for less than 7% of total market capitalization of 38 emerging markets in Asia, Latin America, Africa, and Eastern Europe in 2000 (Azzam, 2002e). However, during the 2000's, equity markets expanded almost five times from 2002 to 2005 and increasingly serve as a vehicle for financing private companies and divestiture of public assets. Market capitalization in the GCC states increased by nearly 700% over the same period (World Bank, 2006g). The Saudi stock market which is the largest in the region has traditionally represented about 40% of the region's total capitalization (see Table 6).

During the 1990s, most of the companies (60%) listed on the region's stock markets were banking, investment and insurance as well as real estate firms, compared with other emerging markets, where these sectors typically accounted for less than one-quarter of total capitalization. This reflects the region's tendency for limited market capitalization in manufacturing compared with more than

Table 6 Equity Markets in Select MENA Countries

	Market Capitalization (US\$ bn)		Market Capitalization (% GDP)		Value Traded (US\$ bn)		Turnover Ratio (%)	
	2000	2005	2000	2005	2000	2005	2000	2005
Egypt	28.5	79.5	30.7	72.4	11.8	27.7	34.7	34.8
Jordan	4.9	37.6	58.5	289.1	0.4	23.8	7.7	63.3
Kuwait	19.8	141.5	56.1	190.0	4.4	97.3	22.2	78.5
Qatar	8.2	87.1	46.2	253.6	0.4	28.3	4.5	32.4
Saudi Arabia	67.9	646.0	36.0	210.0	17.4	1103.7	25.6	170.8
United Arab Emirates	11.0	231.4	15.7	178.5	0.1	140.6	1.0	60.8
GCC	117.0	1135.5	34.2	191.6	23.03	1373.9	19.7	121.0
MENA	312.0	1594.6	33.0	106.2	232.0	1675.0	75.0	106.0

Source: Al-Hassan, A, F Delgado and M Omran (2007). IPO Behavior in GCC countries: Goody – Two Shoes or Bad to the Bone? *IMF Working Paper Series WP/07/149*, p. 5.

30% in emerging markets. Governments have remained large shareholders in the region's stock markets and held about 40% of total capitalization, during the 1990s, alongside prominent entrepreneurs and strategic investors. The value of shares traded as a percentage of market capitalization has traditionally been low – about one quarter the level in emerging markets in 2000. This is linked with a number of factors including limited share offerings as well as the need to improve transparency and address insider trading in some markets. Investors have tended to focus on one or two stocks at the expense of the rest of the market – in Egypt and Jordan, for example, during the 1990s, trading in two companies (Arab Bank and Mobinil) traditionally dominated these two markets, accounting for more than half of daily turnover and driving prices of these two companies up while the rest of the market remained weak (Azzam, 2002f).

Furthermore, issuers of shares have tended to be older companies established in key sectors rather than start-ups in untested or high-risk and growth industries. This is due to generally limited capital availability for start-ups which lack, among others, the required track record and credibility with the financial community.

At the same time, initial owners and governments have been reluctant to give up shares to the public, which can inflate the prices of existing stocks and contributes to stock market volatility, particularly for new share offerings and during periods of high liquidity. During the 2000s, for example, average initial abnormal returns for GCC IPOs were nearly 300% and above levels found in developed and emerging market IPOs. Between 2000 and 2005, there were 59 IPOs in the GCC countries with a total value of US\$15 billion (Al-Hassan *et al.*, 2007). The majority of these IPOs came from the UAE, Saudi Arabia, and Qatar and were issued during the peak of the bull market in 2005. More than 75% were either state-owned or the state-intervened in the IPO process by determining share prices because companies operated in a regulated industry and were subject to licensing to start. Econometric analysis of these IPO offerings suggests abnormally high initial returns and mixed performance in after-market trading. In this case, IPO initial and after-market returns were linked with swings in

investor sentiment and the regulated nature of the IPOs rather than by risk, expected demand for the stock or firm signaling.

The further development of contractual savings markets and ensuring wider access to risk mitigation instruments would greatly deepen the region's financial markets and lessen dependence on bank finance. Transparent and accessible instruments for insuring against risk are few and far between and have the potential to generate a valuable pool of long term savings for investment. With regard to the insurance industry, for example, total written premiums (life and non-life) are 1.5% of GDP, roughly comparable with low-income countries (1.7%), and far below the average of 7% for high-income countries. Most written premiums include non-life insurance (casualty and property) at an estimated US\$103 per capita relative to the life insurance sector which amounts to only US\$17 per capita (World Bank, 2006h).

Furthermore, the insurance sector has traditionally been characterized by smaller companies – an estimated 367 across the region during the early 2000s with average premium incomes of less than \$17 million per company. Rate-cutting, rather than introducing better services and non-traditional insurance products has been the prevailing form of expanding market share (Azzam, 2002g). In Syria, Iraq and Algeria, for example, the market has also been dominated by state-owned insurance companies, whereas in Egypt, large public companies operate alongside several private companies. In some GCC markets where private companies dominate the market, foreign entry has been prohibited.

Bond markets are less well-developed, with primary and secondary markets relatively illiquid. However, these markets offer significant potential for addressing existing constraints in the financial sector. More developed bond markets can encourage corporate borrowers to switch from banks for longer-term borrowing needs and provide an alternative to equity markets for family owned firms seeking to retain their equity stakes but in need of long term funds. One step to accelerate bond market development is to expand local government bond issuance along with a strong legal framework for security issuance, clearing and settlement procedures and promoting

money and risk management instruments. Government bond markets have grown in importance since the mid-1980s as a source of financing for government budgets and governments bonds also help to establish a benchmark for pricing of corporate bonds. Furthermore, the yields on these bonds can serve as reference points in derivative markets and as discount rates for valuing equities and appraisal of investment projects. Trading of government bonds through the stock exchange can also encourage wider participation and complement the growth of equity markets while promoting the growth of new risk management instruments. Saudi Arabia, Kuwait, Oman, Egypt and Lebanon have very active markets although maturity has generally limited to between two and five years (Azzam, 2002h).

A viable local corporate bond market can provide patient capital for industrial growth and financial development while lessening dependence on short-term lending from banks. This is much needed in MENA countries and would facilitate long term planning as well as providing insurance against sudden changes in interest rates. The experience of East Asia also demonstrates the importance of maintaining diversified funding sources – countries such as Singapore and Hong Kong survived better than most, in part, because of viable bond markets. Lebanon, Egypt, Jordan, Bahrain and the UAE all have active corporate bond markets with most issues rising during the mid 2000s. Kuwait's corporate bond market has been among the most advanced in the region, with the primary market opening in 1968 followed by development of secondary market activities in 1977 and bond trading on the Kuwait Stock Exchange in 1985, open both to Kuwaiti and other nationals, resident and non-resident (Azzam, 2002i). Between 1968 and 1979, for example, more than 60 bonds valued at more than US\$1 billion were issued and a number of KD bonds were also listed and traded for a time on London and Luxembourg stock exchanges. During the 1980s, however, market activities slowed and mostly involved local borrowers. Following the Gulf War, bond markets became relatively dormant as a result of low buyer interest, although by the mid to late 1990s they were revived with increased offerings

from real estate banks, investment companies, and industrial groups.

Putting in place the right institutional infrastructure along with sound macroeconomic management is critical for further development of bond markets. These markets rely even more than equity markets on strong corporate governance, transparency and full disclosure as well as a functioning legal system, particularly bankruptcy laws, in addition to advisory and other support services. Closing the gap with international accounting and disclosure standards and enforcement and promoting active market participants are equally important. Developing more active markets requires further development of efficient clearing and settlement arrangements, and expertise in financial analysis, underwriting bond issues and market-making activities (Azzam, 2002a).

A number of countries in the region have growing market niches in Islamic banking and finance.⁴ Islamic banking represented between one-fifth to over one half of banking assets in Kuwait and Yemen, respectively, compared to 11.3% in Malaysia in 2005 (Grais, 2007a). Total assets of Islamic banks worldwide were estimated at over US\$250 billion in 2005. Assets and equity in the ten largest Islamic banks all in the GCC, were over \$106 billion in 2006. The growth of *sukuks*, many from the GCC region where issuance was over US\$16 billion – increased 45% during the 2000s.

⁴ Islamic finance or *Shariah*-compliant banking can be defined as the provision and use of financial services and products that conform to Islamic religious practices and laws. In particular, Islamic financial services are characterized by a prohibition against the payment and receipt of interest at a fixed or predetermined rate. As an alternative, profit and loss sharing arrangements, purchase and resale of goods and services and the provision of services for fees, all form the basis of contracts in Islamic finance. In profit and loss sharing arrangements, the rate of return on financial assets is not known or fixed prior to undertaking the transaction. In purchase-resale transactions, a mark-up is determined based on a benchmark rate of return, typically a return determined in international markets such as LIBOR. Islamic banks are generally prohibited from trading in financial risk and from financing production or trade in certain products and activities. For a more complete discussion, see Cihak and Hesse (2008).

Furthermore, *Shariah*-compatible insurance services are increasingly available in communities where conventional insurance penetration has been small. More than 20% of these companies worldwide are located in MENA countries, primarily in Kuwait, the United Arab Emirates and Bahrain (Grats, 2007b).

Many financial systems in MENA countries are characterized by a mixture of conventional and Islamic financial institutions. In Iran, however, the entire banking system was transformed into an Islamic financial system following the 1983 Usury Free Banking Law which abolished interest-based banking operations. In Saudi Arabia, on the other hand, all banks offer conventional and Islamic products with the exception of a few banks which offer only Islamic services. In Bahrain, there is a mixed financial system which has coexisted since the late 1970s. Financial development accelerated during the displacement of banking activities following the outbreak of civil war in Lebanon, combined with the emirate's favorable geographical location and relatively educated population. In 1975, an offshore banking industry was established through introduction of regulations allowing entry of foreign banks without being subject to existing banking regulations in transactions with non-residents. The first Islamic bank, the Bahrain Islamic Bank was licensed in 1979 and since then, at least 27 other private Islamic financial institutions have been created, offering a full range of Islamic banking products (Solé, 2007). The Government of Bahrain has also worked to attract leading financial institutions as well as playing a role in multilateral initiatives to develop the Islamic financial sector. Thus, Bahrain is also home to a large number of organizations engaged in the regulation and rating of Islamic financial activities including the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), the International Islamic Rating Agency, and the International Islamic Financial Market. In 2002, and the Government of Bahrain also established the liquidity management center with the aim of addressing a particular challenge among Islamic banks, namely liquidity management, given that banks cannot use existing interest-based markets. Sovereign instruments in the form of *ijara* and *al-salam* sukuk were

also introduced to expand the role of monetary policy and replace some sovereign conventional borrowing with Islamic instruments.

Issues for policymakers include the extent to which existing financial sector regulation applies to Islamic banking institutions as well as the Islamic banking activities of conventional banks and how Islamic banking and finance affects overall financial market development. In Lebanon and the UAE, for example, Islamic banking laws have been enacted, whereas in Saudi Arabia and Egypt, Islamic banks operate under the same laws governing conventional banks (Grats, 2007c). Given the rapid evolution of the Islamic financial services industry, a consensus on best practices in key areas of regulation has not yet emerged. In addition, licensing and regulation of Islamic banks will likely increase the supervisory burden on regulators who will have to be familiar with Basel 1,11 Capital Accords as well as Islamic Financial Services Board (IFSB) standards. One important concern is the fact that the range of Islamic financial instruments is still significantly smaller than conventional finance, particularly regarding lack of derivatives and risk hedging or money market instruments. This could act as a brake on financial and economic activity in mixed financial systems (Solé, 2007).

Another important issue for policy makers is how to manage the concentration of distinct risks in a smaller number of institutions (Cihak and Hesse, 2008b). Specifically, such risks are associated with (i) the shifting of direct credit risk from banks to depositors, as in the case of profit-loss sharing arrangements and to a lesser extent for non-profit-loss sharing arrangements; (ii) higher operational risk associated with the complexities of administering profit-loss sharing arrangements and limited legal means for controlling agent-entrepreneurs; (iii) the inability to lower credit risk through the use of collateral or guarantees in making profit-loss sharing arrangements; (iv) the lack of product standardization due to the multiplicity of potential financing methods which increases operational risk and legal uncertainty in interpreting contracts; (v) the inability to use risk hedging instruments and techniques as well as underdeveloped or non-existent inter bank and money markets, government securities and limited availability of and access

to lender-of-last resort-facilities operated by central banks, and (vi) specific risks inherent in the special nature of investment deposits whose capital value and rate of return are not guaranteed and which could potentially heighten risks of moral hazard.

Dealing with all of these features requires among others, adequate capital and reserves, appropriate pricing and control of risks, strong rules and practices for governance, disclosure, accounting and auditing rules and an infrastructure that facilitates liquidity management. The question also arises as to whether addressing such concerns comes at the cost of measures to improve financial sector development more generally. This also arises in the context of balancing institution-building efforts on developing offshore financial centers, for example, for exporting wholesale financial services, with the infrastructure needed to help onshore financial intermediaries reach small local producers (World Bank, 2008b). Limited empirical evidence comparing conventional and Islamic banks in 20 countries, including those in the MENA region, suggests that small Islamic banks tend to be financially stronger than small conventional banks and larger Islamic banks, while large commercial banks tend to be financially stronger than large Islamic banks (Cihak and Hesse, 2008b). Factors explaining this gap could include the additional layer of protection added to the bank through risk sharing arrangements on the deposit side, in addition to bank capital. In addition, the need to provide stable and competitive returns to investors, along with shareholders' responsibility for negligence or misconduct and the more difficult access to liquidity, has likely put pressure on smaller Islamic banks to be more conservative. Investors (depositors) also share in the risks to a greater degree and have more incentive to exercise tight oversight over bank management. Finally, Islamic banks traditionally hold a larger portion of their assets than commercial banks in reserve accounts. On the other hand, compliance with these procedures appears to be more difficult as Islamic banks increase in size. This is linked with the increasing complexity associated with scaling-up credit risk monitoring systems as well as the difficulty of monitoring various profit-loss arrangements as the scale of the banking operation grows. Another possibility is that smaller banks concentrate on

low-risk investments and fee income whereas larger banks do more profit and loss sharing transactions.

While growth potential in regional financial markets including Islamic finance is significant – there are also economy-wide signals that policymakers must keep in mind with regard to how investors decide on levels of exposure to an emerging market which are relevant for the MENA case (Azzam, 2002a). Namely, concerns relate to the extent to which there is (i) a mismatch between short-term debt and foreign reserves – if investors are doubtful of a country's ability to repay its debts, they will be reluctant to roll over maturing loans; (ii) a big current account deficit: while most emerging economies are likely to have current account deficits related to the import of machinery and equipment important for growth, at some level the current account becomes unsustainable. However, lower debt and faster growth can help eliminate the deficit and it is important to assess the extent to which it is financing investment or consumer spending; (iii) a budget deficit: the current account is a matter of concern if it is caused by a budget deficit; (iv) composition of capital inflows: the higher the share of FDI, the less vulnerable is the country to sudden capital outflows; (v) overvalued exchange rate: the more overvalued, the greater the incentives for speculators.

CONCLUSION

In general, financial and private sector development and lower barriers to entry and access allow incorporated, self-standing and independent firms with widely spread ownership to flourish. However, the reality in many MENA countries diverges somewhat from this prototype. To date, private sector activity in the MENA region can be characterized as being generally centered around the activities of a large public sector, with concentrated ownership structures working in profitable but limited opportunities in generally protected sectors. This is linked with barriers to entry, weak contestability in local markets and lower growth prospects over the long run. A large portion of private investment remains concentrated in non-tradable

sectors of economic activity such as construction and real estate, in addition to finance and retail, linked with high levels of government expenditure. Protection has been maintained, in some cases, through sole agency rights and in others, through excessive licensing and regulation at the sector and industry levels. Stability of profits for select groups has come at the expense of broader access and entry. Barriers to profitable expansion are prevalent in both factor and product markets. Financial markets, primarily the banking sector, remain concentrated, with limited options for longer-term patient capital to finance innovation and growth oriented firms as well as value-added productive ventures.

Public policy continues to hold promise for improving the investment climate, to the extent that it addresses fundamental issues of competition and market structure. Much depends on whether policy efforts reinforce a more general need for wider application of competitive disciplines. In the area of commercial law for example, a challenge has been wholesale adoption of western commercial codes and institutions *de jure* and enforcement with an eye towards local tradition and political concerns (Mallat, 2000). Other measures can aim at extending the reach of markets to new entrants and new segments of economic activity, continued progress on privatization of state owned enterprises and promoting foreign entry of financial institutions, all of which could help to expand domestic productive potential, lower costs and improve efficiency and innovation. This would have important spillover effects, including for smaller firms, and would help to close the gap between the financial assets and real investment opportunities.

MENA economies, particularly in the GCC, are becoming large-scale capital exporters on a global scale. While this has favorable effects for global liquidity, there is a need to balance growth in domestic investment potential with global financial investments. In this regard, timing tends to be a crucial factor and the experience of successful liberalization in MENA countries seems to be linked with the confluence of favorable external factors, lower net benefits of continued protectionism and a shift in the institutional framework. In the 2000s, many of these factors are in play, with

significant potential for raising private investment, particularly in labor-intensive, tradable sectors and enhancing income-earning opportunities for larger segments of the domestic population, particularly youth. Much will depend, however, on whether policymakers accelerate both domestic and external liberalization efforts and the extent to which such efforts are mutually-reinforcing.

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Making Global Integration Work for MENA Countries

In the mid-1970s, the MENA countries were among the most open developing economies in the world. Levels of regional integration in terms of labor and capital flows were also high, as oil-exporting countries absorbed surplus labor from Egypt, Yemen, Jordan and Lebanon. However, in conjunction with less favorable global economic conditions and rising fiscal imbalances, a number of MENA economies turned inward during the 1980s and 1990s. Between 1981 and 2000, for example, developing countries as a whole roughly doubled shares of world manufacturing exports; in MENA countries, on the other hand, world market share in manufacturing exports declined over the same period (Thirwall, 2006a).

This chapter seeks answers to the following: What is the pattern of MENA's global and regional trade integration and migration flows? What are the constraints facing the region's exporters and how can deeper integration with global markets enhance the region's growth prospects?

TRADE AND GROWTH

Maintaining economic growth rates while managing a sustainable balance of payments position is an ongoing challenge for policy-makers in developing countries and closing the foreign exchange gap through strong export performance has been correlated with higher growth in developing countries since the 1950s. However, over and above foreign exchange earnings, trade increases the

value of output and real income from domestic resources. Static gains are those which accrue from international specialization according to theories of comparative advantage, when higher-cost suppliers are replaced by lower-cost suppliers as tariffs are reduced. Dynamic gains are those which arise from expansion of the entire production possibility set through economies of scale, higher investment potential, technological improvements and the transmission of knowledge. Trade can also provide a vent for surplus commodities – bringing otherwise unemployed resources into productive use. It also provides opportunities for countries to purchase goods from the global market, which can help to alleviate domestic bottlenecks in production and raise productivity, if imports are more productive than domestic resources. With trade, there are enhanced prospects for industrialization and moving beyond traditional methods of production (Thirwall, 2006a).

While trade can clearly act as powerful engine for growth, not all countries necessarily benefit equally from greater openness to trade. Commodity-exporting countries tend to face particular challenges through factors such as the Dutch Disease (Sachs and Warner, 1995). Some studies focus explicitly on the link between broader measures of openness and growth, finding a positive correlation between more openness and productivity growth through absorption of imported technology (Edwards, 1992; Leamer, 1988). Trade distortions, or the degree to which the real exchange rate does not adjust for differences in domestic and international price levels, are also linked with strong protection and incentives for home production, limiting efficient absorption of imported technology (Dollar, 1992). From a policy perspective, factors associated with faster rates of global integration and higher growth include higher ratios of exports and imports to GDP, ratios of FDI to GDP, the share of manufactures in total exports and a country's credit rating (Brahmblatt and Dadush, 1996). The link between trade liberalization and higher growth prospects also appears to work through stimulating export growth and in some cases, increases in the sensitivity of export growth to world income growth (Santos-Paulino, 2002).

Why Do So Many Developing Economies Remain Protectionist?

From a political economy perspective, however, in small markets with a few, large public and private firms, trade liberalization in the form of import penetration which promotes competition, creates pressures to improve product quality and lower prices for consumers, is not always welcome. Import tariffs, non-tariff barriers and miscellaneous fees and surcharges are also an important source of fiscal revenues. *Ad hoc* exemptions from these charges can be an important source of political leverage. This is aggravated in the case where tariffs on final products are higher than those on inputs, raising rates of effective protection to levels much higher than official tariff rates. The granting of import monopoly privileges, preservation of high tariff rates on specific commodities and sole agency provisions all help to serve both political and fiscal interests.

While evidence linking the impact of trade liberalization on households is mixed, some groups can clearly gain from the liberalization process while others can lose. An important determinant is the effect on prices. As protection declines, consumer prices may fall, but so will producer prices, as barriers to competition decline. The net welfare effects depend on the composition of production and consumption of different groups and how they respond to price changes.

In the case of Morocco, for example, studies of 5000 rural and urban households from 1998/9 suggest that trade liberalization in cereals production results in highly concentrated losses in welfare among rural households which were net producers of cereals, particularly those in 3 to 4 well-defined geographic areas (Ravallion and Lokshin, 2004a). This is in stark contrast to declining poverty in urban households. Furthermore, the degree of welfare loss in rural areas is rising with the degree of tariff liberalization – complete removal of tariffs on cereal imports, for example, results in an increase in the proportion of the rural population living below the poverty line from 6% to nearly 10%. Furthermore, most of the impact

tends to be “horizontal” in the distribution of income meaning that there are large differences in impact at given consumption levels relative to mean impacts between different levels of consumption i.e between poorer and richer households (Ravallion and Lokshin, 2004a).¹ This is particularly the case as the degree of trade liberalization increases. Larger losses in welfare as a result of trade liberalization appear concentrated in rural households which tend to be smaller, have more wage earners, higher education levels, are employed in commerce and transport and live in four specific regions.

CHARACTERISTICS OF GLOBAL AND REGIONAL TRADE IN MENA COUNTRIES

Traditionally, MENA’s trade flows have been highly concentrated, both in terms of trade partners and product flows. More than 50% of exports have typically gone to industrial country markets, with relatively greater dependence on OECD markets, Europe and Asia, relative to other developing countries (Yeats and Ng, 2000a). MENA countries are also distinguished by a high level of dependence on agricultural (food) imports relative to other middle-income regions (Table 1).

Export products are highly concentrated, relative to other middle income countries. Commodity exports tend to predominate, with shares of manufactured exports in GDP low and declining from 17% of total exports to 15% from 1995–2006 (World Bank, 2008c). Agriculture and other non-oil exports are losing ground to petroleum and chemicals in Egypt for example. Even among non-oil exporters, export potential is relatively concentrated. In the

¹ An important assumption underlying this analysis is that wage rates are assumed fixed. It can be argued, however, that export-oriented cash crops which replace cereals will be more labor-intensive and likely raise wages for relatively unskilled workers. This would go some way toward compensating the rural poor. This model also does not capture dynamic effects from greater trade openness which may facilitate new learning about agricultural technologies and bring gains to farm productivity.

Table 1 Raw Food Imports in MENA Countries

	Net Raw Food Imports (US\$ millions 1980/1981)	Net Raw Food Imports (US\$ millions 2004/2005)	Net Raw Food Imports as % Total Imports 1980/1981	Net Raw Food Imports as % Total Imports 2004/2005
Egypt	-1099	-933	-11.9	-4.0
Jordan	-24	-397	-0.9	-5.3
Morocco	24	423	0.7	2.6
Tunisia	-173	-203	-5.8	-1.7
Algeria	-595	-1430	-6.5	-7.3
Bahrain	-43	-162	-1.2	-4.2
Iran	-839	-373	-9.6	-1.1
Kuwait	-337	-607	-5.6	-5.3
Libya	-340	-236	-3.2	-3.2
Oman	-51	-211	-3.7	-3.7
Qatar	-34	-167	-2.9	-2.3
Saudi Arabia	-1263	-2807	-4.6	-6.1
Syria	-1	259	0	3.1
United Arab Emirates	-267	-1032	-3.9	-1.3
Lebanon	-111	-262	-3.8	-3.7
Yemen	-148	-379	-11.1	-10.4

Sources: UN Comtrade Statistics. Ng, F and A Aksoy (2008). Who Are the Net Food-Importing Countries? *Policy Research Working Paper Series* No. 4457, World Bank, pp. 30-33.

Notes: Food is defined as raw food, excluding all cash crops, processed food products and seafood.

mid-1990s, for example, the top four export sectors accounted for more than two-thirds of export earnings in Tunisia, Jordan and Morocco; relative to 52% in Latin America and the Caribbean and 49% in the new EU member states (Nassif, 2007a). Furthermore, one product, non-fur clothing accounted for nearly one fifth of all exports in the 1990s (Yeatts and Ng, 2000b).

Furthermore, export specialization continues to leverage the region's natural resource base – notably minerals, petroleum and natural gas and is somewhat concentrated in low labor skill activities such as clothing, leather goods, and footwear.

Such products and sectors are also highly contested in international markets where MENA countries face stiff and growing competition from countries in Eastern Europe and Asia as well as Latin America. The technological structure of exports for MENA countries tends to be relatively low in comparison with other middle income regions – 20% of total exports are considered high and medium technology exports, relative to 37% in Latin America and the Caribbean and 60% in high-performing East Asian economies (Nassif, 2007a). Furthermore, the distance to the technological frontier is further for medium than for high-tech products. This can be explained in part, by the fact that medium technology products (automobile, machinery), tend to be skill-intensive and scale-intensive. High-tech exports such as electronics, on the other hand, have complex core production processes and product design that either are provided directly from industrialized countries and/or assembled elsewhere.

MENA's relatively high level of export concentration reflects in part, the effects of regulation and protectionism as well as trade and other factors which likely come into play such as gaps in global interconnectivity. Studies of the impact of trade facilitation suggest that a 10% increase in the number of web hosts in a country, for example, increases its trade by 10% (Freund and Weinhold, 2000). Recent cross-country studies of 140 developing country exporters suggest that each additional export signature required to move a good through the entire export process – lowers exports overall by more than 4% – this is equivalent to raising import tariffs by 5 percentage points (see Table 2). Furthermore, exports of differentiated products are more sensitive to changes in export signatures and other administrative hurdles relative to exports of homogeneous goods; each signature reduces exports of differentiated products by 4%–5% more than the homogeneous products (Sadikov, 2007a). In addition, the differential impact of business registration procedures, an indicator of the ease of doing business suggests that additional distortions in the business environment

Table 2 Export Specialization and Regulatory Barriers

	GDP Per Capita (US\$)	Number of Signatures	Time to Export (Days)	No. Procedures to Start a Business	Exports/GDP (%)	Petroleum & Gas Exports (%)	Diff products/ Exports (%)	Herfindahl Index
Lebanon	6,149	15	22	6	5.2	0.7	38.9	0.03
Oman	9,584	7	23	9	49.3	93.7	3.7	0.64
Algeria	2,616	8	29	14	31.0	96.9	0.4	0.54
Kuwait	22,654	10	30	13	35.2	90.8	2.4	0.64
Saudi Arabia	10,462	12	36	13	41.6	87.0	2.2	0.67
United Arab Emirates	24,121	3	18	12	48.9	62.4	14.2	0.31
Egypt	1,085	11	27	10	10.9	19.6	35.7	0.04
Iran	2,439	30	45	8	20.8	87.8	3.5	0.74
Jordan	2,117	6	28	11	22.0	0.0	54.7	0.06
Morocco	1,678	13	31	5	22.3	0.0	59.9	0.03
Syria	1,293	19	49	12	18.8	65.2	12.6	0.43
Tunisia	2,838	8	25	9	33.9	7.0	68.0	0.04

Source: Sadikov, A (2007a). Border and Behind-the-Border Trade Barriers and Country Exports, *IMF Working Paper Series WP/07/292*, pp. 25–35.

Notes: GDP data are for 2004, World Bank World Development Indicators.

Export barriers are measured based on World Bank Survey Data of Freight-Forwarding Companies in 2005 and based on 4 products.

Doing Business Data is for 2005.

Trade data are from COMTRADE database, UN/World Bank WITS System 2004 data; includes bilateral import data at the 4 digit product level.

Herfindahl Index is calculated as a measure of the degree of product concentration and is normalized to obtain values from 0 to 1 (maximum concentration).

Differentiated products are classified according to Rauch (1999) as products neither traded on organized exchange (commodity goods) nor those whose benchmark prices are available from industry publications (price-referenced).

Rauch, J (1999). Networks vs Markets in International Trade. *Journal of International Economics*, June, 48(1).

lower exports of differentiated goods by nearly 10% (Sadikov, 2007b).

This evidence is underscored by case studies of individual export commodity chains. In many countries in the region, for example, typical international transactions require a lengthy process of investment upfront – in terms of money and time. Exporters must also incur expenses related to search for an international supplier or customer, then sign a delivery contract, build up inventory in some cases, secure payment or invest retained earnings in others, move a good from a manufacturer or factory to the port, clear customs in the country of origin, load goods onto vessels, ship the good to a destination country, clear customs there and finally deliver the shipment to the customer. In countries such as Yemen, inefficiencies at each stage of this export process can erode nearly half of the value of the exported product.

Case Study: A Fresh Tuna Exporter in Yemen

A case study of a major exporter of fresh tuna based in the port city of Mukalla in Yemen provides a snapshot of the considerable hurdles facing exporters of perishable products (Devlin and Yee, 2002a; Devlin and Yee, 2005a). This exporter sends fresh fish to the EU for US\$4.00 to US\$4.50 a kilogram, reflecting high demand for Yemeni tuna in global markets, particularly the EU. This is linked with two attractive features: the fish is line-caught, resulting in a low histamine level and the timing of the season runs from November to April, when traditional sources of supply (Mediterranean Sea and the Canary Islands) for the EU are out of season.

However, fresh tuna is time-sensitive because the product life of the fish under premium conditions is about 7 days from the time it is caught and unloaded from the fishing boat. The exporter must typically deliver fresh tuna to its buyer within 48 hours so that there is enough marketing time in the remaining 5 days for the buyer to sell the fish. When an order is placed for fresh tuna, which is typically 10 tons in shipment size, the export commodity

Table 3 Fresh Tuna Export Processing Time: Yemen to Germany

Activity	Elapsed Time (Hours)
Catching and landing fish	69
Processing the purchase order	72
Booking transport cargo space (air and truck)	72
Buying fish at auction site to fill order	72
Trucking fish from auction sites to processing plant	75
Chilling (in ice water) and cleaning (gutting entrails, etc.) fish	87
Packing into cartons	94
Loading onto truck for line haul transport	95
Transmit information to Sana'a office for document preparation	96
Line haul transport to Sana'a International Airport	105
First round of document preparation by Sana'a office (copy faxed to customer)	105
Cargo processing at Sana'a International Airport plus waiting	108
Second round of document preparation (copy faxed to customer), as needed	108
Air freight to Frankfurt Airport by Yemeni Air (including original documents)	116
Customs clearance at Frankfurt Airport	118
Shipment pick-up by customer	119

Source: Devlin J and P Yee (2002a). *Global Links to Regional Networks: Trade Logistics in MENA Countries*, p. 25. Paper presented at the Fourth Annual Mediterranean Development Forum held in Amman, October 6-9.

chain swings into action (see Table 3). Processing the order launches a period of extensive planning of the shipment's inbound logistics, in-plant operation and outbound logistics – allowing margins for faulty infrastructure and onerous regulations. Fresh tuna is purchased on a continuous basis from local fishermen belonging to a cooperative operating an artisanal fleet. Fish are landed in grounding sites directly onto the beach, although high waves frequently prevent the small craft from landing the catch, a delay lasting several hours or the better part of a day. This occurs about

30% of the time, shortening the marketing time for fresh tuna. Once landed, the tuna is delivered to a nearby auction site where the fish is sold to buyers, although facilities at the auction site are inadequate due to limited space and lack of cooling facilities. At the plant, the fresh tuna undergoes a three-step processing method (chilling, gutting, grading) and is packed into heavy-duty Styrofoam containers purchased from Oman and eligible for duty exemption – although this is rarely used due to lack of awareness of the program. Each carton costs about US\$0.50 (200 cartons required).

The shipment is loaded onto two refrigerated trucks hired from a local trucking company for transport to Sana'a Airport at a cost of US\$1,618. One in five trips results in a truck breakdown due to an antiquated fleet. When this occurs, shipments are delayed, sometimes an emergency truck is called, but the shipment typically returns to the plant and is sold in the frozen tuna market at a significantly reduced price of US\$1.00 per kg. While the trucks are *en route* to Sana'a Airport, the Mukalla processing plant transmits all the necessary information to the company's Sana'a office so that documents can be prepared for the export shipment. With razor's edge timing, the trucks arrive at Sana'a International Airport 3 to 5 hours before plane departure. Upon arrival, the shipment of 200 cartons is unloaded, but getting the required quantity of tuna aboard the national airline is not always certain, since the aircraft is also used for passenger service and the captain gives priority to passenger luggage. Once passengers have checked in, the full consignment of 200 cartons of fresh tuna, or part of it, could be bumped off at the last moment. When this happens, the documentation has to be changed immediately to reflect the changed status of the shipment and the company's personnel from the Sana'a office are always on stand-by to finalize the documentation. According to the company, shipments are bumped off at least once a week. The total cost of the air freight, if the full consignment of 200 cartons is on board, is US\$14,770 (based on an air tariff of US\$1.05 per gross kg).

After nearly five days, the transaction is completed when the cargo arrives in Frankfurt, is processed through the cargo terminal and cleared through customs either by the buyer or a forwarding agent. However, the weak level of performance in the logistics chain incurs a total logistics cost of 55% of the product price. Truck breakdowns and uncertain cargo conveyance through the airline incur a value of shelf-loss in transit estimated at US\$4,800, created by the severe price markdown of fresh (US\$4 per kg) to frozen tuna (US\$1 per kg). Studies of other export commodities in the MENA region reveal similar problems (see Table 4).

Other policy distortions relate to high levels of tariffs and non-tariff barriers. With regard to easing trade restrictions, MENA countries maintain relatively high tariff levels, although this differs between the GCC and other MENA countries. Regional average tariff rates were 13% for 2006 relative to 7% for countries in East Asia and the Pacific and 9.5% for countries in Latin America and the Caribbean. In Tunisia, Morocco and Iran, on the other hand, average tariff rates are nearly twice as high. For GCC countries, the average is about half the regional average at 6.5% (World Bank, 2007a).² However, since the early 2000s, countries such as Egypt, Jordan, and Lebanon have made significant progress in lowering tariff rates, as have Saudi Arabia and Yemen.

Non-tariff barriers – in the form of countervailing service charges, special import taxes and internal taxes and fees – are generally higher than in other developing regions. In Jordan, for example, while most quantitative restrictions on trade have been gradually eliminated, non-tariff barrier coverage was still nearly 50% in the 2000s (World Bank, 2007b). Such constraints have been a particularly high barrier to the expansion of intra-Arab trade. Examples of service charges on intra-Arab trade have included roadway passage and traffic administration fees in Jordan, a fiscal withholding tax estimated at 15% of cif (cost, insurance,

² Simple average tariffs are based on most-favored-nation applied rates.

Table 4 Logistics Costs for MENA Exporting Firms (US\$)

	Yemen		Egypt			Jordan	
	Tuna	Coffee	Banana	Garments	Potatoes	Garments	Okra
<i>Non-transport logistics costs</i>							
Ordering and other admin. cost	25	25	25	60	60	90	40
Load/unload	462	526	159	560	14,000	2,200	110
Capital carrying cost in transit	21	1,830	3	996	591	2000	1.35
Capital carrying cost in storage	10	4,238	2	670	295	—	0.25
Storage cost	370	1,800	40	475	800	240	25
Shelf-loss in transit/storage	4,800	—	520	90	3,750	50	100
Filing loss & damage claims	25	25	—	30	—	—	—
Safety stock/stock-out cost	—	—	—	—	—	—	—
Emergency shipment cost	2,772	—	—	—	—	—	—
Subtotal	8,459	8,444	749	2,881	19,496	4,580	268
<i>Transport charges</i>							
Truck	1,167	950	590	400	19,200	4,400	210
Air freight	12,348	—	—	7,000	—	19,000	1,925
Ship	—	1,700	—	3,800	8,400	9,200	—
Subtotal	13,515	2,650	590	11,200	27,600	32,600	2,135
<i>Logistics costs as % landed price</i>	54.9	7.2	23	15.4	26	6.7	48

Source: Devlin and Yee (2005).

freight) value plus customs tariff in Morocco, taxes levied for the Fund for Development of Competitiveness of Tunisian Products (FODEC) at a rate of 1% on the cif value and a 15% rate on the cif value for the Great Manmade River Tax in Libya (Zarrouk, 1998).

Other important bottlenecks to MENA exports include inefficiencies in service sectors such as transport, where the combination of high levels of government intervention and rate controls, together with private monopolies, can undercut competition and raise costs. The trucking industry in particular, is a key bottleneck for exporters; the industry is generally characterized by obsolete equipment with some trucks more than 40-years old and a high degree of fragmentation and distortionary regulations. The trucking industry in countries such as Yemen also operates without complete pricing freedom, as it is not allowed to charge market rates for essential commodities that are regulated by the Ministry of Transport (Devlin and Yee, 2002a).

Non-regulated commodities tend to be charged much higher rates than essential commodities with the result that pricing practices are not economically efficient. High rates levied on non-regulated commodities are thus used to offset low rates received for essential commodities. Furthermore, low rates for essential commodities have encouraged truck operators to overload cargo, exceeding allowable road weight limits and shortening the life of the road system. This partial-rate control, together with the prevalence of freight monopolies, have contributed to fragmentation of ownership and inefficient capacity utilization, as small private operators use very small fleets and vehicles, limiting the size of shipments that can be carried in transit and preventing greater scale economies. In Yemen, for example, loads have also been assigned on the basis of a queuing system managed by cartel-like organizations or *ferza* that operate on a regional basis (e.g., in Hodeidah, Aden, Mukalla, etc.). A similar function has been performed by the Unified Company for Organizing Land Transport in Jordan, which owns no trucks but was established

by the government for the purpose of organizing private sector trucking by assigning loads (based on turns) for trucks operating in the Aqaba and Zarqa Free Zones. Most drivers could only get a turn once every two weeks. Thus, while cartels control load assignments, ownership of trucks remains fragmented and in the hands of many small operators. Fragmentation is also a problem in Egypt and limits the size of shipments carried in transit while discouraging fleet management practices that could lead to scale economies.

More generally, Jordan's trucking system has been characterized by oversupply in the market along with stagnant demand. Transport rates set by the Ministry have been decreasing but the rates have not yet reached a level that has allowed Jordanian trucks to compete with neighboring countries. For example, trucking cargo from Latakia in Syria to Baghdad has typically been cheaper than transporting cargo from Aqaba to Baghdad. During the early 2000s, 90% of trucks were 20 years old or more and the industry was in poor financial condition overall (Devlin and Yee, 2002a).

Given its low volume of trade, exporters in the MENA region also face higher shipping costs and longer transit times for cargo relative to exporters in other developing countries. This prevents economies of scale from being exploited and discourages airlines and shipping lines from providing more frequent and direct service. In the case of Aqaba, for example, container traffic increased steadily from 40,000 TEUs in 1990 to 142,000 in 2001. However, nearly all of the container movements in 2001, for example, were in the inbound direction, returning empty in the outbound direction (Devlin and Yee, 2002a). The Middle East container market consists of trade with Europe, Asia, North America and Africa and the region in general is viewed as a transit point on the major shipping route rather than a final destination between the two prominent container markets of Europe and Asia. Accordingly, liners access ports through a trunk line with calls only at major or hub ports and supplemented by feeder lines. Consequently, while all of the major shipping lines offer a weekly service, voyage times are long.

In many countries, customs procedures have typically been applied with the objective of revenue generation rather than trade facilitation. In Egypt, for example, enforcement of trade regulations by the Customs Authority has required coordination with a large number of other government agencies, namely the General Organization for Import and Export Control (GOIEC), Organization for Standardization, Food Control Department, and others. Customs authorities have tended to dispute the appropriate classification and value of the cargo (for determining the amount of duty) for the basis of levying duty. Commercial invoices have tended not to be accepted as a document in determining the value of the shipment (as per international practice) and the overall lack of transparency in document inspection has created an environment of great uncertainty (Devlin and Yee, 2002). In the early 2000s, customs authorities tended to stop every shipment for inspection and each shipment was inspected based on a sampling of 10%–100% of the goods in transit.

In addition to physical and regulatory barriers to integration with global and regional markets, fiscal imbalances also play a role. MENA countries have maintained substantial overvaluation in real effective exchange rate indices – estimated to have reduced the ratio of manufacturing exports to GDP by 18% on average per year between 1970 and 1990. While this may have contained some inflation, it did so at the cost of exports, namely an estimated 2.4% of exports in Egypt, 3.1% in Jordan, and nearly 9% in Tunisia (Nassif, 2007b). A number of empirical studies also suggest that exchange rate volatility has been significant in the short and long run and effectively dampened export potential in Algeria, Egypt and Tunisia, depending on the composition of exports and degree of specialization (Rey, 2006).

Exchange rate regimes tend to vary across countries in the region from currency pegs to managed floats (see Table 5). With regard to how much flexibility is desirable and the appropriate timing of transition to a more flexible regime, there is no one-size-fits all approach (Jbili and Kramarenko, 2003). Issues of exchange rate flexibility are linked with the speed and sequencing

Table 5 Exchange Rate Arrangements, Select MENA Countries (As of April 31, 2008)

Exchange rate regime			Monetary policy framework	
	US\$	Composite	Inflation targeting	Other
Conventional fixed currency peg arrangements	Bahrain, Jordan, Lebanon, Oman, Qatar, Saudi Arabia, United Arab Emirates, Yemen	Kuwait, Libya, Morocco, Tunisia, Syria (1)		
Crawling peg arrangement	Iraq	Iran		
Managed floating with no predetermined path for the exchange rate		Algeria		Egypt

Notes: (1) Pegged exchange rate within horizontal bands.

(2) No explicitly stated nominal anchor, but monitoring of various indicators in conducting monetary policy.

Source: IMF (2008). *De Facto Classification of Exchange Rate Regimes and Monetary Policy Framework*.

of improvements in financial systems and progress in fiscal adjustment as well as the importance of real shocks. The main objective for policymakers is to manage the exchange rate and macroeconomic policy, particularly fiscal policy, to reduce volatility *vis-à-vis* principal trade partners and facilitate needed adjustments in the real exchange rate to limit misalignments.

The majority of MENA countries are classified as having conventional fixed peg currency arrangements³ and many peg their currency to the US\$1 either officially or *de facto*. In theory, fixed exchange rates have the advantages of maintaining investor confidence, encouraging domestic savings and investments and discouraging capital outflows. However, much depends on policy-makers' ability to manage internal and external imbalances, the availability of foreign exchange and investor sentiment regarding risks of devaluation. Thus, exchange rate management in MENA countries is inextricably linked with internal and external factors – namely economic fundamentals, the nature of a country's trade and capital flows and the willingness of governments to implement credible and sustainable policy choices (Azzam, 2002).

In Conventional Fixed Peg Arrangements, the country pegs its currency within margins of ± 1 percent or less *vis-à-vis* another currency; a cooperative arrangement or a basket of currencies, where the basket is formed from the currencies of major trading or financial partners and weights reflect the geographical distribution of trade, services, or capital flows. Morocco, Libya, Kuwait and Tunisia have exchange regimes based on currency baskets, while in other MENA countries, notably the majority of GCC states, exchange rates are pegged to the US\$. Within these arrangements, there is no commitment to keep parity irrevocably

³ This classification system is based on actual and de facto arrangements as identified by IMF staff, which may differ from their officially announced arrangements. The scheme ranks exchange rate arrangements on the basis of their degree of flexibility and the existence of formal or informal commitments to exchange rate paths. It distinguishes among different forms of exchange rate regimes, in addition to arrangements with no separate legal tender, to help assess the implications of the choice of exchange rate arrangement for the degree of monetary policy independence. The system presents members' exchange rate regimes and monetary policy frameworks to provide greater transparency in the classification scheme and to illustrate the relationship between exchange rate regimes and different monetary policy frameworks (IMF, 2006).

and exchange rates may fluctuate within narrow margins of less than ± 1 percent around a central rate – or the maximum and minimum value of the exchange rate may remain within a narrow margin of 2% – for at least three months (IMF, 2006). The monetary authority maintains fixed parity through direct intervention (i.e., via sale/purchase of foreign exchange in the market) or indirect intervention (e.g., via the use of interest rate policy, imposition of foreign exchange regulations, exercise of moral suasion that constrains foreign exchange activity, or through intervention by other public institutions). With an exchange rate anchor, the monetary authority stands ready to buy or sell foreign exchange at given quoted rates to maintain the exchange rate at its preannounced level or range; the exchange rate serves as the nominal anchor or intermediate target of monetary policy.

In the case of Iran and Iraq, the exchange rate regime is classified as a Crawling Peg Arrangement. Currencies are adjusted periodically in small amounts at a fixed rate or in response to changes in select quantitative indicators, such as past inflation differentials *vis-à-vis* major trading partners, differentials between the inflation target and expected inflation in major trading partners (IMF, 2006). The rate of crawl can be set to adjust for measured inflation or other indicators (backward-looking), or set at a preannounced fixed rate and/or below the projected inflation differentials (forward-looking). Maintaining a crawling peg imposes constraints on monetary policy in a manner similar to a fixed peg system.

Algeria and Egypt are classified as having Managed Floating Systems with no predetermined path for the exchange rate in which the monetary authority attempts to influence the exchange rate without having a specific exchange rate path or target. Indicators for managing the rate are broadly judgmental (e.g., balance of payments position, international reserves, parallel market developments) and adjustments may not be automatic (IMF, 2006). Intervention may be direct or indirect.

Thus, at the core of MENA's weak export performance is a combination of factors, including commodity export dependence, fiscal and exchange rate policy, weak progress on trade liberalization and gaps in trade facilitation infrastructure and institutions. High and volatile oil prices and rising levels of fiscal expenditure have *inter alia* contributed to fiscal imbalances and overvalued exchange rates and a shift of resources away from non-oil tradable sectors. This has also created incentives for selective trade liberalization. At the same time, in many countries, exporters suffer from a host of restrictions related to structural and institutional barriers, together with price controls and weak efficiency in trade-related services such as transport, customs and others.

There is a particular need to reform the transport sector and expand the transport intermediary sector which can provide consolidation functions for exporters, among others. The absence of multimodal carrier liability regimes also poses additional costs. In most countries such as Jordan, truck liability regimes have typically not covered more than one mode of transport – which is generally necessary in export activities. To what extent can trade policy helped in this regard?

Can Unilateral, Multilateral, and Regional Trade Integration Address These Problems?

Successful integration strategies tend to be based on trade liberalization efforts across three dimensions (Galal and Hoekman, 1997). For a small country that cannot influence its terms of trade, unilateral free trade is generally the best policy. This is analogous to extending MFN (Most Favored Nation) treatment to all trade partners. Participation in multilateral trade negotiations such as the WTO offers the possibilities of reciprocal tariff reductions while WTO negotiations can provide coverage in sectors such as agriculture which are often excluded from other trade negotiations. Countries can go beyond MFN treatment to extend national treatment to foreign investors. This is defined as treatment no less favorable

than that accorded to domestic producers and service providers. Each General Agreement on Trade in Services (GATS) member, for example, decides which sector will be subjected to market access and national treatment disciplines. If, in the context of multilateral negotiations, other countries reciprocate, this increases the gains from unilateral liberalization for a small country such as Egypt or Jordan. However, there are few, if any gains to be made in making liberalization conditional upon reciprocity by trading partners, given the limited bargaining power of most MENA countries and the small size of their domestic markets.

With regard to regional and bilateral trade agreements, these offer opportunities for preferential liberalization which are generally economically inferior to unilateral liberalization. This is based on the reasoning that the world market is much larger than regional markets; by not discriminating across potential trading partners, domestic firms and consumers have the freedom to buy goods and services from the most efficient suppliers regardless of their location. By granting preferential treatment to specific countries, trade diversion can occur in the context of such agreements, although this may be offset by trade creation and dynamic benefits from deeper integration related to harmonizing regulatory regimes and efforts to liberalize more generally on a Most Favored Nation basis. Frequently, such liberalization is coupled with financial assistance to ease the social and political costs associated with tariff reductions.

In the case of MENA countries, 11 are members of the WTO, most have signed bilateral Free Trade Agreements (FTAs) with the European Union (EU) and in some cases the United States (Bahrain, Morocco) and all are members of the Greater Arab Free Trade Area (GAFTA). In general, the role these agreements have played in liberalizing trade is somewhat ambivalent and the proliferation of overlapping and competing regulations with regard to various regional trade initiatives, particularly with regard to rules of origin calculations, are considered a growing problem for policymakers (Lawrence, 2006a). Surveys of CGE modeling for different trade liberalization scenarios, particularly with the European Union (EU)

tend to show higher returns for unilateral liberalization strategies and limited static gains from these FTAs unless they are coupled with effective domestic policies to generalize trade liberalization and improve domestic competition (Stern, 2001).

With regard to the EU in particular, as early as the 1970s, MENA countries such as Tunisia were granted unilateral preferential benefits and access to the EU market. Duty-free entry for industrial products was extended as part of a series of cooperation agreements and expanded further in 1995 through the Barcelona Declaration and proposed establishment of a Euro Mediterranean Free Trade Area by 2010 between 15 EU and 12 Mediterranean countries. The aim of these agreements has been to secure market access for industrial products and to liberalize trade on 60% of EU agricultural imports from MENA countries. However, most of the EU barriers to industrial products had already been lifted in previous agreements, with the exception of textiles and apparel. In addition, these agreements did not lessen the barriers imposed by Europe's Common Agricultural Policy, with the affect that the degree of agricultural liberalization was small and a complex range of tariffs and other obstacles largely remained in place (Lawrence, 2006a).

According to these agreements, MENA countries are expected to dismantle tariffs on imports of industrial goods from the EU and implement specific institutional reforms in rules of origin, standards certification, intellectual and industrial property rights protection and competition policy. In 2004, the European Neighborhood Policy was introduced with bilateral Action Plans designed to promote reform in a broader range of areas, allowing greater flexibility for the differential pace of liberalization across individual countries while promoting regional integration. The aims of this policy are to promote deeper integration through convergence to EU laws and regulatory standards in industrial products as well as sanitary and phytosanitary standards together with institutional reforms to facilitate service and investment liberalization. A parallel initiative aims at establishing a single system of cumulation of rules of origin across countries in the region. The policy has been supported by significant financial

resources, totaling approximately 4.5 billion Euros for 1995–1999 and 5.35 billion Euros 2000–2006 (Lawrence, 2006b).

In practice, however, the EU agreements have had limited effects on trade, investment and reforms in MENA countries. Empirical modeling suggests that unilateral preferences granted prior to the Euro Med Agreements, during the 1980s, for example had a greater impact on boosting exports, by over 20% but these have diminished over time (Peridy, 2005). As for using the FTAs to anchor domestic reforms, this has been complicated in some cases, by lengthy negotiation procedures and the weakness of external anchors as a credibility mechanism. In the case of Egypt, for example, negotiations were launched in 1995 and took nearly 10 years to come into effect. In practice, it is also difficult to withdraw trade concessions in the event of lack of compliance with commitments to economic reforms and there have generally been weak linkages between financial programming and policy dialogue and reforms. Exclusion of agriculture – traditionally a key export sector for many MENA countries – has left an important sector virtually off the negotiating table.

Similarly, the limited treatment of services and investment has prevented these agreements from helping to boost Foreign Direct Investment (FDI) – which has clear advantages for building new export capacity. Incentives for foreign investment were also weakened by the fact that in the original bilateral agreements, value-added in each individual country could qualify for sales to the EU but bilateral cumulation of rules of origin in a partner country could not be counted. This effectively created incentives for investors seeking to service the entire region to locate in the EU rather than a single MENA country – the proverbial hub-and-spoke problem. With regard to FDI, in the years immediately following the signing of the agreements, Tunisia, Jordan, and Morocco all experienced a decline in FDI relative to GDP and relative to worldwide shares of FDI (Lahouel, 2001a). Nevertheless, efforts remain underway to promote FTAs and cumulation of rules of origin between Mediterranean countries as in the case of the 2004 Agadir Agreement between Egypt, Jordan, Morocco and

Tunisia. This could have a significant impact on the region's attraction to foreign investors – empirical studies estimate that lack of cumulation in rules of origin among MENA countries has dampened bilateral trade among them by 40%–45% (Augier *et al.*, 2003).

For a subset of countries in the region, the US-FTAs offer another potential venue for accelerating trade and regulatory reforms. The primary differences between these agreements and the EU agreements are a narrower focus, primarily on trade and investment with greater coverage of services liberalization and different rules for calculating rules of origin (Lawrence, 2006a). Relative to the EU agreements, the US-FTAs have deeper commitments in the areas of services, foreign investment, and agriculture (see Table 6).

Intra-regional Linkages: Strong and Growing

While the US and EU are important trade partners, intra-regional linkages continue to play an important role (Hakimian and Nugent, 2004). Within regions, growth spillovers from large regional countries can be very beneficial to neighbors and an important source of intra and inter-regional trade. In the MENA region, such linkages have also occurred, namely between the bloc of oil-producing states of the GCC and the rest of the MENA countries. While the GCC countries have typically not been major trading partners for MENA countries, they have been important sources of financial flows and remittances. A recent study of panel data over a 35 year period suggests that the growth of real GDP in Egypt, Jordan, Morocco, Yemen, Syria and Tunisia, for example, is linked with outflows from and the accumulation of financial surpluses in GCC countries (Ilahi and Shendy, 2008a). Growth linkages have come primarily through private consumption and investment rather than exports.

In the latter half of the 1990s MENA countries launched and implemented the Greater Arab Free Trade Area of GAFTA, also known as the Pan Arab Free Trade Areas (PAFTA) to promote liberalization in trade among 22 Arab states under the aegis of the Arab League. This agreement was preceded by nearly 40 years of efforts to promote greater integration in the region (Dervis, Bocock

Table 6 A Comparison of EU and US Morocco Trade Agreements

	Euro Med Agreements	US Morocco FTA
Industrial products	Included	Included
Transition: Industrial products	EU Immediate; Morocco 12-15 years	US Immediate; Morocco 9 years
Agriculture	EU: limited (60% of imports plus preferences with tariff quotas) Morocco: very limited; some duty reductions within tariff-rate quotas (TRQ)	US: Phaseouts up to 18 years Preferential TRQs; Morocco phase out on most sensitive products over 25 years additional TRQ preferences expand over time
Intellectual property rights	World Trade Organization Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)	TRIPS Plus
Antidumping and safeguards	WTO Rules	WTO Rules
Competition rules	Outlaws collusion/abuse of dominant position distorting competition in trade	Not covered
State aid/subsidies	Must not distort EU-Morocco trade but allowed for public or policy goals	WTO rules
Government procurement	Consultation with aim of further liberalization	Most central government purchases; majority of regional and municipal governments

(Continued)

Table 6 (Continued)

	Euro Med Agreements	US Morocco FTA
Services	General Agreement on Trade in Services (GATS) plus possibility of further liberalization	Negative list approach; sectors covered by Morocco include audiovisual, telecoms, distribution, construction, finance, insurance, e-commerce
Standards	Aim at reducing differences and mutual recognition	WTO rules
Aid, economic development & cooperation	MEDA grants to support all Euro Med Agreements	Not covered
Other provisions	Political dialogue; social & cultural cooperation, democratic principles and respect for human rights, scientific, and technological cooperation	Not covered
Rules of origin ¹	Extensive	Extensive
Investment	Not covered	Almost full rights of establishment, national treatment
Labor and environment	No new commitments	Commitments to enforce own laws, not to weaken laws, or rules to attract trade or investment

(Continued)

Table 6 (Continued)

	Euro Med Agreements	US Morocco FTA
Dispute settlement	Association council by decision or by arbitration binding on both parties; no time limit or enforcement procedures	Dispute panels with open public hearings; enforcement mechanisms include suspending trade concession or monetary assessment

Source: Lawrence (2006). A US-Middle East Trade Agreement: A Circle of Opportunity? *Policy Analyses in International Economics* No. 81. Peterson Institute for International Economics. November, pp. 84-85.

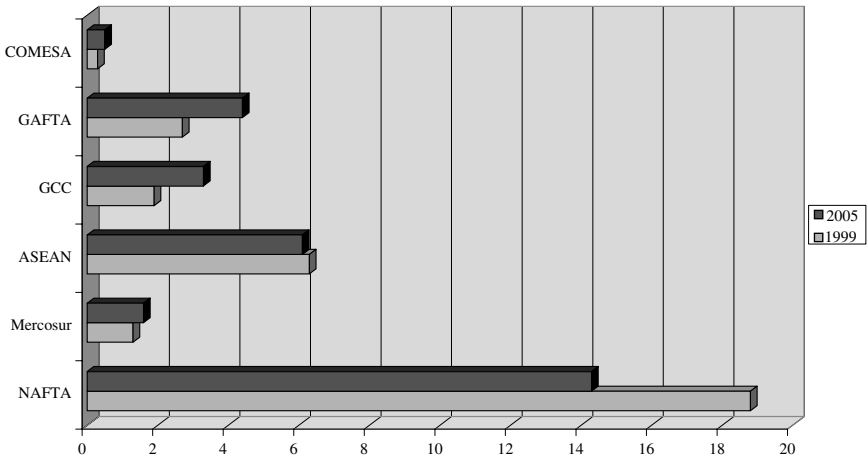
¹ There are significant differences between EU and US provisions on Rules of Origin, with regard to tariff classification changes, minimum value added and administrative procedures. With regard to domestic content, for example, the US minimum domestic content requirement for Jordan is 35% (materials plus processing cost) while the EU-Jordan agreement limits the maximum import content to 30-50%, depending on the product. For a more complete discussion, see Lawrence (2006), p. 91.

and Devlin, 1998). Among Arab states, there are at least three comprehensive regional agreements and over 45 bilateral trade agreements. In 1953, for example, member states of the Arab League signed a treaty to enhance intra-regional trade, followed by a 1964 agreement to form the Arab Common Market including Egypt, Iraq, Jordan, and Syria. This was followed by a 1981 agreement to facilitate intra-Arab trade and most recently GAFTA which was launched in 1997 with the aim of reducing tariffs and tariff-like charges by 10% per year over a period of ten years. Intra-Arab trade has tended to be concentrated in non-oil products and services such as chemicals, iron and steel as well as textiles, fruits, vegetables and building materials which demonstrate some elements of dynamism and competitiveness. Across the region, integration through regional markets tends to vary considerably with countries such as Jordan and Lebanon traditionally more dependent on the regional market – with intra-regional exports at times accounting for as much as 30%-40% of total non-oil exports (Devlin and Page, 2001).

In addition to tariff reduction on all goods by 10% over a period of ten years, GAFTA seeks to accelerate removal of non-tariff barriers and the extension of national treatment to Arab goods. Liberalization of some agricultural products is suspended during peak harvest seasons. The agreement did not address subsidies, countervailing duties, safeguards, and anti-dumping referring to application of WTO rules in this regard. Rules of origin have been based on a 40% value added requirement (Galal and Hoekman, 2003). By 2005, tariffs on intra-Arab trade had been reduced; intra-Arab exports increased by 13% annually reaching an estimated US\$21 billion in 2002 (Lawrence, 2006c). Progress in the area of non-tariff barriers has been more limited, in addition to rules of origin provisions and cross border transit continues to be a challenge for policymakers.

One of the most successful examples of integration within the MENA region is between member states of the Gulf Cooperation Council (GCC), established in the early 1980s as a free trade area and later customs union in 2003 between the six states of Saudi Arabia, Kuwait, Bahrain, Oman, Qatar, and the UAE (Fig. 1). The GCC also functions as a common market, with mobility of GCC citizens across states and the extension of national treatment to all GCC citizens. This also applies to real estate ownership, capital movements and tax treatment as well as health and social services. With the growth in trade flows within the bloc, there has been a commensurate increase in linking payments systems and coordinating fiscal and monetary policies with a view toward economic and monetary union, including the possible adoption of a common currency. External tariffs are low, set at 5% on imports from outside the GCC with exemptions for an estimated 417 commodities; there are common customs procedures.

As noted earlier, labor migration and remittances have been an important instrument for integration within the region; predominantly in the form of transfers from oil-exporters in the GCC to labor-exporters in the Mashreq as well as between North Africa and Europe (Shafik, 1994; Girgis, 2002). This form of regional integration has undergone a number of historic phases, with a peak in terms of labor flows within the region occurring during the 1970s,



Regional Trade Blocs

	1999	2005
NAFTA	18.8	14.3
Mercosur	1.3	1.6
ASEAN	6.3	6.1
GCC	1.9	3.3
GAFTA	2.7	4.4
COMESA	0.3	0.5

Source: World Bank (2007). *World Development Indicators*. Washington DC: International Bank for Reconstruction and Development, p. 334.

Note: COMESA refers to Common Market for Eastern and Southern Africa.

Fig. 1 Regional Trade Blocs (% world exports). Total merchandise exports by bloc as % world exports.

when it is estimated that the expatriate labor force from Egypt, Syria, Yemen and others working in other Arab states, predominantly the GCC, was well over 4 million. For Maghreb countries, workers from Algeria, Morocco, and Tunisia constitute between 15%-40% of the migrant population in France, Belgium, Italy, the Netherlands, and Spain (Gubert and Nordman, 2007).

Within individual MENA countries, worker remittances have represented an important source of foreign exchange earnings

albeit, with uncertain effects for growth and investment. Globally, the largest concentration of remittances tends to flow between the countries of developing Asia and the western hemisphere although remittance flows in the MENA region nearly doubled between 2000 and 2003 (Chami *et al.*, 2008a). In 2004, for example, Mexico was the largest developing country recipient of workers' remittance followed by the Philippines, Lebanon, China and Morocco. Jordan, Yemen, Lebanon, Morocco and Egypt are ranked among the top 20 recipients of remittances globally and remittances were estimated at over 15% of GDP in Jordan, Yemen and Lebanon from 1990–2004. Globally, remittance flows tend to be less volatile than private and official capital flows and exports and positively correlated with the size of a country's financial system.

From 1970–2005 for example, the average annual standard deviation of workers' remittances was less than 2 percentage points of GDP relative to nearly 7% for private capital flows (Chami *et al.*, 2008b). Remittance flows also tend to be somewhat negatively correlated with fiscal balances and are also sensitive to currency depreciation – depreciation in the value of the recipient country's currency relative to the dollar for example, tends to result in a lower ratio of workers' remittances to GDP. Remittance flows also tend to be less sensitive to interest rate differentials and more sensitive to income differentials across countries, with larger differentials correlated with additional workers' remittances as a share of GDP. In terms of growth impact, remittances have a relatively ambiguous influence. Like oil revenues, much depends on the extent to which they fund current consumption or investment. On the one hand, remittances can enhance investment in physical and human capital accumulation in addition to promoting deepening of the financial sector. On other hand, remittances can also dampen growth prospects through Dutch-Disease type effects.

In the MENA region, remittance flows from the GCC states have tended to be somewhat volatile – remittances have grown by more than 30% in some years and declined by as much as 9% in others (Ilahi and Shendy, 2008b). Nevertheless, when combined with other financial flows, remittances appear to be positively

linked with regional growth – an estimated 1% increase in GCC financial flows (current account balance regional GDP ratio) for example is associated with a 0.17–0.21% increase in individual MENA country growth rates. At the household level, a significant portion of remittances have been spent on consumption, with favorable effects on lowering household poverty; some part of this transfer goes into savings and investment in the form of housing. In Egypt for example – a survey of 74 Egyptian households suggests that receipt of remittances increased the marginal propensity to invest, primarily in residences and land (Adams, 1991).

THE POLITICAL ECONOMY OF TRADE LIBERALIZATION

Unlike other developing regions, MENA economies became more protectionist during the 1990s relative to the 1970s; much of this was linked with declining import shares of GDP linked with lower access to foreign exchange. From a political economy perspective, lower imports as a share of total sales effectively lower the costs of protectionism since more of the surplus goes to groups that benefit from trade barriers – namely producers (Esfahani and Squire, 2006). During the 1970s, trade shares in MENA countries were as high as 90% in oil exporting countries and 60% in non-oil exporters compared with 36% on average for other developing countries.⁵ However, in the 1980s and 1990s as the region moved into a period of very low growth, trade protectionism increased relative to the 1970s and the region as a whole became more closed for both oil and non-oil exporting countries. Measures of trade restrictiveness, for example, increased substantially from 1975 to 1985 for countries such as Iran, Egypt, Syria and remained relatively high through the 1990s compared with other developing regions. In countries such as Morocco, which made early gains in trade reform, trade

⁵ MENA oil exporting countries include Algeria, Bahrain, Iran, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, UAE, Yemen; non-oil exporting countries are classified as Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia, the West Bank and Gaza.

restrictiveness increased over the 1990s relative to the 1980s. Ratios of predicted to actual trade shares suggest that oil-exporting countries in particular, were trading more than predicted based on factors such as population, geographic distance to neighboring markets, level of fuel exports and others until the early 1980s but by 1995, this trend had reversed itself significantly (Esfahani and Squire, 2006). In the case of Iran, for example, trade restrictions increased sharply in 1995 following the country's foreign debt crisis that led to severe rationing of foreign exchange.

Governments in a number of MENA countries, have also lowered tariffs and removed quantitative restrictions while shifting protection to other instruments. In the case of Egypt, for example, bans on textile imports were lifted in January 1988, but at the same time, new non-tariff barriers were introduced such as excessive technical certification requirements for quality control. This included, for example the requirement that the name of importers be woven into any imported fabrics (Henry and Springborg, 2001). Mandatory inspection fees on some textiles products posed further obstacles to trade. Such measures tended to protect select interests at the expense of across-the-board reductions in trade barriers and severely impacted the flow of imports. In other countries, such as Algeria, the decline in average tariff rates was offset to some extent by growing dispersion in average tariff rates and the maintenance of tariff peaks. Similarly, in the case of Lebanon, average mark-ups in non-metallic products, for example, were nearly 16% while average tariff rates were 7% (Dessus and Ghaleb, 2006a). A similar situation prevailed in wood and chemical products where markups were roughly twice as high as average tariffs.

The example of development of an offshore export sector in Tunisia reveals the difficulties of building new export potential alongside protection for domestic interests. Relative to other MENA countries, Tunisia rapidly expanded manufactured exports after two significant shifts in economic policy, in 1972 and in 1986. In the early 1980s, for example, Tunisia's exports were nearly 42% of GDP and manufactures nearly quadrupled shares of total

exports between 1970 and 2003. However, some measure of this success does not appear to have been the by-product of rapid trade liberalization but rather the introduction of a new class of exporters through an extensive and costly offshore system (Lahouel, 2002a).

Rapid growth during the 1970s slowed considerably following a series of external shocks in the 1980s and rising government spending levels. By 1986, external debt levels reached 63% of GDP as a result of high levels of fiscal spending and an overvalued exchange rate together with a widening current account deficit (Richards and Waterbury, 2008). After turning to the IMF in 1986, the government launched an ambitious reform program to control fiscal spending, devalue the currency, promote exports and stimulate private sector activity. Tariff reductions were largely focused on capital and intermediate goods production, in which there were few substitutes for domestic production. As a result, effective rates of protection increased during the 1990s, from an estimated 56% in 1995 to over 80% by the late 1990s. Manufacturing effective protection remained high until 2000, with an average rate of 63%, declining from a rate of 90% in 1997–1999. For some products such as food and metal products, effective protection was over 200% in 2000 (Lahouel, 2002a). Domestic industrialists also benefited from a system of “minimal” customs values in which documents submitted by importers were subject to administratively-determined valuation (*Valeurs Minimales en Douane*) applied to 25% of all active tariff lines. This administratively-controlled system of valuation was gradually removed in compliance with commitments made under WTO customs agreements.

Nevertheless, pockets of protection remained. For several goods, the removal of licensing has been conditioned upon compliance with import “*cahiers de charge*” which specify quality-related and other conditions. For these goods, licensing is removed only if the “*cahier de charge*” (CC) was issued by the administration and there were significant delays in issuing CCs for products such as fertilizers, cement, tires, cereals, petroleum, sugar, coffee, and tea. In the absence of the CCs, imports continued to be restricted to existing authorized importers. Further protection for

the domestic market accrued from extensive procedures regarding testing and compliance with product standards. While these standards were designed in principle to protect consumers, in practice, they served as a restraint on trade and effectively prevented entry of consumer goods into the market. Delays for laboratory clearance for product testing were costly and left room for discretionary power by public officials. Surveys of Tunisian firms suggest that average periods required for clearance have been as long as 22 days (Lahouel, 2002a). Excessive customs clearance delays have also been linked with low productivity in cargo handling in public monopolies. In the early 2000s, for example, Tunisia's largest port in Rades was still run by a state-owned monopoly, STAM despite a maritime port law of 1999 allowing for private provision of port services.

Along with continued high levels of protection, from the 1980s to the mid-1990s, shares of private investment in tradable sectors increased moderately. This reflected in part, the effects of trade liberalization implemented in a way to protect domestic manufacturing in the early years following implementation of tariff reductions and a gradual schedule of liberalization. Most of the competition to domestic producers in fact, came not from trading partner markets but from a new class of exporters in the highly-competitive offshore manufacturing sector (Lahouel, 2002a). Tunisia's offshore regime has been one of the most extensive programs to expand exports in the region. Generous tax advantages were extended to offshore firms, in addition to duty-free imports of capital and intermediate goods, exemptions from all indirect taxes such as – VAT and excise taxes – and after 1993, corporate tax holidays, which became limited to the first ten years after which time profits were taxed at half the legal rate of 35%. Manufacturing firms exporting at least 80% of production were eligible and the offshore regime also allowed firms to avoid cumbersome customs and other administrative procedures faced by importers selling goods in the local market. These important fiscal and administrative advantages gradually attracted not only foreign investment but also national investment to export-oriented activities. Thus, a new

class of exporters was created in part, by effectively granting tax exemptions to offset protection for industrialists producing for the highly protected domestic market. Nearly half of manufacturing firms with more than 10 employees were offshore or totally exporting firms, and in 2000, the offshore sector employed roughly 57% of the manufacturing labor force.¹

The fiscal costs of creating a new class of exporters was high. Available estimates suggest a ratio of fiscal incentives to investment in the offshore sector on the order of 27% or approximately 70% of the annual volume of FDI in manufacturing in the 1990s (Lahouel, 2002a). Corporate tax exemptions were excessive and increasingly difficult to defend as import tariffs declined. Furthermore, as global competition increased for both offshore and onshore firms, tax discrimination between the two was no longer justified.

More generally, an important issue for policymakers remains the degree to which trade policies have closed the gap between domestic and external liberalization. Over the 2000s, the Government Tunisia, for example, worked to close the incentive gap between offshore and onshore sectors through; (i) tariff reductions on raw materials, equipment and capital goods; (ii) extension of export promotion to onshore firms and (iii) reduced corporate tax rates and increased VAT reimbursement (World Bank, 2008a). However, despite such efforts, recent analysis suggests that closing the fiscal gap between onshore and offshore firms with regard to import duties, VAT reimbursement and tax holidays has not compensated for the effects of credit and labor market obstacles and anti-competitive practices in the domestic market. Some 60% of onshore firms report that implicit agreements, discrimination and linked sales are a major problem associated with selling in the domestic market (World Bank, 2008b). In addition, MFN tariff rates remain high, at over 20% together with costly telecommunications and transport services. Such factors are particularly limiting with

¹ Based on a survey of 5065 manufacturing firms with more than ten employees conducted in 2000 by the Agence de Promotion des Investissements reported in Lahouel (2002a).

regard to enhancing export potential and particular services, beyond the EU Market.

FUTURE DIRECTIONS FOR TRADE POLICY

During the 2000s, trade policy reform accelerated with further reductions in average tariff rates, particularly in countries such as Egypt, Yemen, Saudi Arabia, Lebanon, and Jordan. In Iran, tariff reform resulted in reduced simple average tariffs from roughly 40% to 20% between 2000 and 2004. On average, tariff reductions across MENA countries in the 2000s were more significant than in other developing countries, although this is heavily weighted toward tariff reductions in Iran and Egypt. However, non-tariff barriers continue to remain a significant obstacle to trade and have, by and large, not been addressed by existing regional and multilateral trade agreements. While simple average tariffs in the region averaged 19% in 2000, more than 23% of tariff lines were subject to core non-tariff barriers such as price control measures, anti-dumping and countervailing duties, import licenses and quotas (World Bank, 2007b).

Going forward, a central challenge facing policymakers in accelerating global integration is managing fiscal and foreign exchange pressures as well as competition across interests on the path to trade reform. These two groups of factors tend to be exacerbated with more selective approaches to trade liberalization. In the case of lowering tariffs, for example, trade liberalization does not necessarily reduce revenue from trade taxes to the extent that the liberalization program involves (i) reducing non-tariff barriers by converting them to explicit tariffs and by addressing inefficient or corrupt customs administration; (ii) reducing distorting exemptions or raising low tariffs to establish a more uniform structure; and (iii) cutting tariffs that are initially set at such high levels that a reduction will cause trade volumes to increase by more than enough to offset the direct revenue loss from lower rates (IMF, 2005). However, where tariff reform has not been accompanied by such measures there have been weak "second round" revenue increases with the result that fiscal pressures and short term

balance of payments pressures among others, tend to stall further progress on tariff liberalization. This is further underscored by political pressures to maintain specific areas of protection through tariff peaks and raising of non-tariff barriers as average tariff rates decline. There may also be rising demands for increased social outlays for displaced workers and households affected by trade reforms.

Thus, it is clear that nationally segmented markets offer zero advantages to countries and firms seeking to expand entry into global networks. What is needed are policies that enable firms to optimize on economies of scale, scope and learning by balancing the benefits associated with large scale production, complementary products and knowledge and skill gained over time and enhancing export potential. This requires sustained progress on medium term adjustment programs and in the area of trade, a simpler, more transparent and lower uniform tariff regime and reduced non-tariff barriers. Average applied MFN tariffs remain higher than those in regional trade partners such as the EU and this can become a source of trade diversion to the extent that liberalization with EU markets proceeds more rapidly than liberalization *vis-à-vis* the rest of the world. A sound strategy to improve the competitiveness of the entire domestic economy is also needed to develop new and dynamic export niches as opposed to preferential treatment to exporting firms. In particular, higher elasticity of export demand and diversification could enhance the linkages between greater openness and growth.

MENA countries have invested considerable human and administrative resources in existing multinational and regional trade initiatives. However, these agreements have important gaps, particularly in the case of achieving deeper liberalization in agriculture and services. At the same time, too much emphasis on convergence at the expense of broad-based liberalization in such agreements has the potential to reinforce existing areas of protectionism and bias. In this regard, sector-specific policy initiatives and investments are important complementary measures to further trade reform, particularly with regard to the transport sector. Other enhancements include the need to upgrade technology and

improve the competitiveness of services as inputs and exports particularly professional services and ICT. In the case of Tunisia, for example, nearly 80% of export revenues from services are based on tourism, travel and transport services, which do not make full use of the country's human capital potential. In this regard, the example of Bahrain's experience with developing a rapidly growing Islamic financial services industry may be an interesting case for further study. This approach has leveraged existing expertise in financial services with favorable geography/location, the ability to attract foreign investors and complimentary policy initiatives aimed at helping to shape the rules of the game for a rapidly emerging industry. Finally, relative to past liberalization efforts, MENA countries in general, would benefit from combining MFN liberalization with a more strategic choice of trade partners. Within regional trade blocs, for example, productivity growth is related to the interaction between the openness of the economy (measured as imports relative to GDP) and access to foreign knowledge – that is, economies tend to benefit from foreign knowledge first according to how open the economy is and second according to whether it is open to those countries with the largest knowledge stocks (World Bank, 2000a).

CONCLUSION

Global integration by MENA countries has tended to evolve as a by-product of general macroeconomic conditions and domestic political bargains. External markets have acted to some degree as a “vent for surplus” and safety valve to ease pressure from unsustainable domestic policies. Alternatively, global integration in some developing regions has evolved as part of a concerted strategy to expand the domestic market, specialize in key areas of comparative advantage and raise productivity. In East-Asian economies by contrast, outward-oriented development strategies were implemented in part, through collaboration with foreign investors to leverage established external networks, promote export production and share marketing know-how

and raw materials along with on-the-job training for workers in international factories. Competitive exchange rates and flexible labor regulations were important for maintaining internationally-competitive wages and domestic input costs. However, too much dependence on global markets also has its risks, particularly when policymakers deliberately pursue an export-led growth strategy at the expense of current consumption. Much can be learned from this experience.

For the MENA countries going forward, a key issue for policymakers will be the extent to which global market disciplines are put to work in protected segments and over larger parts of the domestic economy. Export capacity in the MENA region remains highly concentrated; characterized by a limited range of export products and trade partners. Faster liberalization is not without its risks, however, welfare and political economy impacts related to trade liberalization are real and frequently distributed across well-defined geographic and political constituencies and social groups. The result has been selective liberalization, in some cases, reactive trade policy, as well as a tendency towards *ad hoc* and discretionary implementation of liberalization provisions. FDI and technology inflow have traditionally remained limited, contributing, in part, to low levels of manufactured exports, along with unsustainable fiscal policies and exchange rate distortions. This has been counterbalanced to some extent by remittances and tourism revenues, particularly during periods of high regional liquidity.

As the countries of the MENA region assume increasing importance in the global economic system, policymakers will also need to “relocate” themselves into an emerging international order. Small and middle-sized states can play an important role in advancing national interests as well as promote cross border and sectoral interests in a wider arena of international interests (Cooper *et al.*, 1993). In the MENA region, such diplomatic efforts can also leverage substantial and untapped institutional capabilities for international coalition-building and for the management of global problems while promoting stronger regional growth prospects.

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Are Market Disciplines Sufficient? Industrial Policy and Technology Transfer

Between the 1950s and 1970s, policymakers in MENA countries, like many other developing regions, promoted industrial development as the primary means to achieve productivity growth in countries with a high level of primary commodity dependence. What emerged, was a relatively capital-intensive industrial sector characterized by large plants, predominantly in the public sector and some excess capacity alongside small and medium sized firms with limited export potential overall. In 2005, for example, MENA countries as a whole, with a population of over 300 million had levels of manufactured exports slightly higher than Mexico, with a third of the region's population (World Bank, 2008).

This chapter addresses the following: What factors have influenced technology transfer and industrial development of MENA countries? What are the challenges related to expanding industrial and manufactured export capacity to promote innovation and enhance growth prospects?

TECHNOLOGY TRANSFER, INDUSTRIAL DEVELOPMENT, AND PRODUCTIVITY GROWTH

Development economists generally agree that building up productive potential and raising per capita income requires expanding the capacity for producing goods. Technological progress or improvements in the art of production through research, invention, development and innovation are critical in this process. Yet societies

differ significantly in terms of technology advancement, the speed of progress and how knowledge and innovation are applied to the task of production. These factors are linked with development, but also complex social and economic forces. An important factor is the lag between the creation of knowledge and its adoption, as well as the rate of dissemination of new knowledge – which is important for measuring the rate of technical progress between countries (De Ferranti *et al.*, 2002a).

In developing countries, productivity growth is significantly linked with the rate at which countries can acquire and diffuse imported technology—predominately from OECD countries where invention and creation processes tend to be highly concentrated. However, upper middle-income countries are also becoming increasingly important suppliers of technology-intensive products globally, particularly among East Asian countries. In general, policymakers have aimed to use national policies and international agreements to a lesser extent, to stimulate technology transfer, traditionally by focusing on industrial development and turnkey projects in the 1960s and 1970s and more recently through national policies related to education, funding for the creation and acquisition of technology, tax incentives, and others (Hoekman *et al.*, 2004a). During the 1990s, multilateral disciplines on international technology transfer began to deepen through the WTO Agreement on Trade-Related-Aspects of Intellectual Property Rights (TRIPS); particularly Article 7. In 2001, WTO members established a Working Group on Trade and Technology Transfer to determine what might be done under the auspices of the WTO to enhance technology transfer to developing countries.

One main channel of technology transfer is trade and a growing number of studies indicate that increased trade with industrial countries boosts productivity growth of developing countries via R&D spillovers (Coe *et al.*, 1997; Rhee *et al.*, 1984). In the aggregate, higher shares of intra-industry trade (IIT) or the degree of trade within sectors and industries in particular, tends to be correlated with higher rates of technological catch-up. IIT can enhance the

gains from trade by allowing countries to take advantage of larger markets, countries can produce on a larger scale with higher productivity and lower cost in a few varieties of goods. For the MENA countries, however, rates of intra-industry trade tend to be low, relative to other middle-income economies. Most IIT ratios are under 0.2 relative to 0.6 and 0.64 for Korea, Malaysia and Taiwan (Yeats and Ng, 2000a).¹ This suggests significant room for enhancement of technology transfer through deeper trade integration. In addition, MENA's participation in global production sharing is also relatively low, indicating significant untapped potential. On average, there has been a negative trade balance for parts and components with imports about four times higher than exports. Countries such as Saudi Arabia make extensive use of foreign produced components in domestic assembly (Yeats and Ng, 2000b).

In fact, trade with more industrialized countries tends to enable developing countries to lower their technological gap at a faster rate. Foreign R&D embodied in traded goods has a significantly positive impact on total factor productivity for importing countries and this effect is increasing with measures of openness, labor force skills and trade with developed countries (Schiff *et al.*, 2002). While imports are important for acquiring embodied foreign technology, exports frequently provide greater contact with foreign buyers. A survey of Korean firms working with foreign companies to produce components as well as entire products under foreign retailers, indicated that relations with foreign buyers went far beyond negotiation and fulfillment of contracts. Nearly half of firms reported benefiting directly from the technical information provided by foreign buyers, plant visits by engineers as well as through provision of blueprints and specifications, information on production techniques and on the technical specifications of competing products. Of critical importance was feedback on design, quality, and the

¹ The IIT ratio is an index between zero and one with larger values indicating a greater level of trade between firms in the same industry. Higher IIT ratios suggest gains from specialization in differentiated products.

technical performance of products. Once mastered, such knowledge is useful to other local firms (Pack and Saggi, 1999a).

More generally, the East Asian “take off” in terms of per capita income growth and rapid expansion in world trade share also raises questions about the importance of economic structure in addition to policies such as macroeconomic stability, trade openness, financial development and educational attainment. Relative to other developing regions, East Asian economies experienced considerable shifts in labor from agricultural to industry and services, high shares of output in industry and a continuing move within manufacturing toward higher value added products (Jaumotte and Spatafora, 2007a). Some 40% of the gap in labor productivity from 1970–2005 between Asia and the US for example, was due to sectoral shifts in labor towards higher productivity sectors and the rising share of higher productivity growth sectors. The majority was due to within-sector productivity growth, notably in industry and services. Both productivity levels and productivity growth were higher in skill-intensive as opposed to non-skill-intensive sectors. Skill intensity has also been a factor underlying high productivity growth in natural resource-based industries.

In countries such as Sweden and Finland, for example, a combination of maintaining an open trade regime, along with concerted efforts to upgrade production technologies and skills development catalyzed the growth of high value added export sectors and productivity – with strong backward linkages to commodity exports. In these countries, high-technology industries in particular, evolved in part, through backward linkages to agricultural sectors such as forestry. More generally, empirical evidence for a large group of countries from 1967 to 1992, suggests that there is nothing inherently constraining about natural resource wealth – TFP growth was 50% faster in agriculture than in manufactures and industrialized countries experienced rates of growth substantially above developing countries (De Ferranti *et al.*, 2002b). Thus, countries which move beyond a

state of exploiting pure rents from extraction of minerals to exploiting quasi-rents offered by innovation tend to open up an alternative and unlimited source of growth; while development based on collusion and restraints on trade opens up a limited, alternative path.

Other channels of technology transfer include foreign direct investment and direct trade in knowledge via technology licensing. This may occur within firms as in the case of joint ventures or vertical technology transfers or between unrelated firms producing the same product as in the case of horizontal transfers. Technology licensing and FDI are also substitutes in some cases and patents, trade secrets, copyrights, and trademarks can all serve as direct facilitators of knowledge transfer.

Can Industrial Policy Promote Technology Transfer and Innovation?

There is a vast body of literature on the role and effectiveness of industrial policy in influencing an economy's productive structure and productivity gains. In the MENA region, industrial policy for much of the post-WWII period has been focused on building up state-owned enterprises, particularly in strategic sectors, while providing considerable protection to both public and generally large private firms through tariffs, non-tariff barriers and in some cases, subsidized inputs. In countries such as Tunisia, Algeria, Egypt, Jordan, Morocco and many GCC countries, such policies were complemented by the activities of industrial development banks established to provide foreign exchange loans to finance capital imports for industrial ventures. Overall, the success of this approach was limited. MENA's industrial sectors have tended to be characterized by large, inefficient public enterprises, a handful of large private firms and thousands of small enterprises. This has resulted, *inter alia* in wide gaps in productivity levels across firms within and across sectors; average value added per worker in high productivity firms is a multiple

of levels in firms with lower levels of productivity. Variability in output levels, product quality and labor productivity across firms, sectors and industries are all systemic challenges for raising productivity across MENA countries.

With regard to measures of sector growth, patterns of industrial development in MENA countries have not necessarily been correlated with high rates of TFP growth. An empirical study of TFP across 44 countries for the period 1970–94 suggests that MENA countries on average had a smaller concentration of manufacturing production in relatively high-growth sectors, compared with East Asian economies. Furthermore, compared with East Asian economies, MENA countries such as Algeria, Egypt, Jordan and Iran had higher shares of sectoral production in non-manufacturing sectors (see Table 1). This is significant because manufactured products, for example, are structured such that productivity shocks tend to increase output and exports with minimal effect on prices; effectively spreading the productivity shock over a greater volume of factor inputs. (Kharas *et al.*, 2008a). Technology advances thus tend to be leveraged to a greater extent through factor accumulation relative to non-tradable sectors.

In addition, higher TFP growth in East Asia appears to be linked with a higher share of output in textiles, wearing apparel, chemicals and chemical products but also fabricated metal products, machinery and equipment (Choudhri and Hakura, 2000a). In contrast, low-growth sectors have included food and beverages, paper products, printing and publishing. Industries such as chemicals and fabricated metal products as well as machinery and equipment also tend to be classified as relatively skill-intensive industries, while medium-growth sectors include basic metal industries, wood and wood products and non-metallic mineral products, excluding fuel. Measures of openness at the sectoral level, indicating ratios of exports and imports to value-added, suggest that trade has been an important vehicle for technology transfer via exports in high-growth sectors and imports in medium-growth sectors particularly for East Asian economies. In MENA countries, on the other hand, import-induced transfers in medium-growth sectors where growth

Table 1 Global Perspectives on Aggregate TFP Growth and Sectoral Production Shares (%)

Country	Average TFP Growth 1970–1993	Average Sectoral Production Shares Manufacturing			Non-manufacturing
		High	Medium	Low	
Algeria	-1.13	4.59	2.39	2.87	90.15
Bangladesh	0.68	5.96	0.65	2.97	90.41
Cameroon	-1.00	3.42	2.06	6.46	88.08
Chile	1.63	7.13	6.22	6.29	80.36
Colombia	0.99	10.91	2.34	8.29	78.47
Egypt	0.47	10.38	2.59	4.06	82.98
Finland	0.96	11.11	3.82	8.16	76.91
India	1.01	10.42	2.74	2.49	84.35
Iran	-1.71	5.82	2.44	2.12	89.60
Jordan	0.46	5.20	3.29	4.07	87.44
Malaysia	1.26	11.01	3.57	5.05	80.38
Mauritius	2.38	9.23	1.10	8.94	80.73
Pakistan	1.46	8.19	1.81	4.53	85.45
Philippines	-0.53	11.45	2.89	10.79	74.88
Singapore	1.88	20.75	1.67	3.22	74.36
South Korea	1.90	17.50	3.95	5.86	72.70
Turkey	1.20	11.01	3.01	4.23	81.75
Venezuela	-1.34	10.97	2.51	4.83	81.71
East Asia	1.13	15.18	3.02	6.23	75.58
Industrial Countries	0.61	13.09	3.58	5.54	77.80
Latin America	0.18	9.07	2.51	7.97	80.59
Middle East & North Africa	0.69	8.01	2.63	4.39	84.96
South Asia	0.97	8.29	1.75	4.52	85.44
Sub-Saharan Africa	0.09	6.75	2.28	6.29	84.80

Source: Choudhri and Hakura (2000). *International Trade and Productivity Growth: Exploring the Sectoral Effects for Developing Countries*. *IMF Staff Papers*, 47(1), International Monetary Fund, p. 37–38.

Note: Data for nine manufactured sectors are classified into high, medium and low growth groups.

benefits are substantial and technology is not too sophisticated were lower than levels in Sub-Saharan Africa (see Table 2) (Choudhri and Hakura, 2000b). To what extent is sectoral TFP growth linked with industrial policy?

Table 2 Indicators of Change in Sectoral Openness (Average Change)

	All Manufacturing		High Growth		Medium Growth		Low Growth	
	Import Ratio	Export Ratio	Import Ratio	Export Ratio	Import Ratio	Export Ratio	Import Ratio	Export Ratio
East Asia	0.071	0.063	-0.011	0.064	0.168	0.048	0.057	0.077
Industrial Countries	0.024	0.016	0.035	0.021	0.012	0.017	0.024	0.008
Latin America	-0.013	0.050	-0.014	0.031	-0.020	0.033	-0.006	0.087
Middle East & North Africa	0.148	0.049	0.078	0.037	0.002	0.007	0.364	0.103
South Asia	0.027	0.015	0.059	0.029	0.016	0.004	0.007	0.011
Sub-Saharan Africa	0.282	0.252	0.111	0.013	0.031	0.014	0.707	0.730

Source: Choudhri and Hakura (2000). International Trade and Productivity Growth: Exploring the Sectoral Effects for Developing Countries. *IMF Staff Papers*, 47(1), International Monetary Fund, p. 40.

More generally, industrial policy is any type of selective intervention or government policy that attempts to alter the sectoral structure of production toward sectors that offer better prospects for economic growth than would occur in the absence of such intervention – that is, the market equilibrium. Policies designed to improve the productivity of individual sectors and firms are a secondary objective (Pack and Saggi, 2006a). From theoretical and empirical perspectives, the range and depth of knowledge required by policymakers to design and implement successful industrial policy is formidable; including knowledge about which firms and industries generate spillovers, which firms can create new knowledge, which sectors have long term comparative advantage, the potential effects of FDI in addressing coordination problems and so on. The first-best policy is clearly addressing underlying market failures on their own terms – such as improving financial intermediation as opposed to trade protection if the issue is insufficient capital for infant industries.

Empirically, it is difficult to find clear evidence to support the link between industrial policy and sectoral TFP growth. Structural change under competitive pressure drive tends to productivity growth (Commission on Growth and Development, 2008). In Japan, for example, studies indicate that preferential policies (measured by rates of effective protection, tax benefits, subsidies, credit) failed to target sectors with increasing returns to scale and did not affect rates of capital accumulation or sectoral TFP over the period 1955–90. Moreover, effective protection was generally negatively correlated with sectoral TFP growth. The results for Korea are roughly similar – suggesting a lack of impact of industrial policy on sectoral capital accumulation or TFP growth (Lee, 1997). As noted earlier, where East Asian economies tend to outperform other developing regions over the period 1965–2005 was in general measures of institutional quality, trade openness and financial sector development. Institutional quality in particular had a significant impact on within-sector productivity growth (Jaumotta and Spatafora, 2007b).

FDI, trade and backward linkages to domestic firms, rather than integration on the other hand, seem to yield better results than sector-specific industrial policy. The experience of the Mexican automobile industry is a case in point. As a result of both FDI by major car manufacturing companies and trade expansion through NAFTA, there was growing competition in the automobile industry, which increased at multiple stages of production through efficiency improvements. Within five years of investments by major auto manufacturing companies, hundreds of domestic producers of parts and accessories benefited from technology transfer, industry best practices such as production audits and other procedures designed to improve productivity and the quality of domestic automobile parts and accessories. Industrial export capacity jumped from 3.7% of total exports to nearly 70% between 1990 and 1998 and the combined focus on export-oriented manufacturing, MNC engagement and trade liberalization provided a powerful stimulus to push through wider political and economic reforms. Similar backward linkages occurred in Malaysia where foreign investors sent technicians to suppliers' plants to help set up and supervise large volume automated production and testing procedures. A critical ingredient in these approaches was technology transfer through skill acquisition and hands-on training (Pack and Saggi, 2006a).

But MNC engagement is not the sole catalyst for rapid technological change; innovation and domestic capacity are important complementary factors for driving competitiveness. Development of the software industry in India for example was linked with a confluence of factors, including the development of UNIX-based programming, large numbers of graduates trained in computer programming and English, along with fortuitous events in the global economy related to shortages of programmers to solve the Y2K problem as well as needed support for the EU's transition to the Euro (Pack and Saggi, 2006a). This process was attributable largely to the activities of private firms and its success reflected a complex set of interactions between domestic

and foreign responses to perceived opportunities. By the late 1990s, large firms such as Oracle and Novell established operations in India and today, 48% of Indian software firms are either foreign-owned, joint ventures or owned by Indian nationals with intensive participation by foreigners. Expatriates also helped to raise US venture capital for the software industry, provide expertise through a mentoring network between technology entrepreneurs in India and the US, and have been engaged in lobbying efforts urging the Government of India to revamp its telecommunications policies.

More generally, efforts to promote innovation clusters through software and industrial parks have not been overwhelmingly successful. Where they have succeeded, such as the development of the Bangalore software sector, activities have evolved through a unique and unpredictable combination of factors and interactions between domestic and external factors. In the case of India, this configuration included interactions between a large group of well-educated, English-speaking students, the entrepreneurial talents of a small group of residents, links with a large Indian expatriate community in Silicon Valley and global “windfalls.” However, the nature of causal linkages across these factors remains open to interpretation. Government efforts largely followed rather than initiated the “take-off” of the sector. Many of these same patterns tend to emerge in other areas – such as the Hsinchu Science Park in Taiwan, Special Economic Zones in China and the rise of the Bangladeshi garment sector and are an important learning experience for policymakers everywhere. In most cases of innovation clusters, catalytic factors are private investors, with governments generally providing high-quality public goods, in the form of education and alleviating regulatory and infrastructure bottlenecks. Foreign investors can also be important to the extent that they help to close infrastructure and knowledge gaps early on, link domestic firms with external markets and provide distribution networks for firms to move into higher value added

activities. Such linkages can play a powerful role by initially providing an endorsement of quality and reliability, but in many cases this advantage can be firm-specific and can create an uneven playing field in the domestic market. Much therefore depends on the extent to which this dynamism spills over to domestic firms through sector-wide and industry-wide policies to enhance such linkages; particularly in skill-acquisition and scale economies; areas where industrial policy can play a role.

CHALLENGES OF INDUSTRIAL DEVELOPMENT IN MENA ECONOMIES

The case of the textile industry highlights the challenges of improving productivity in industrial activity in the MENA region. The textile industry is one of the oldest industries in the region – contributing significant output and employment, including for women, but also foreign exchange earnings. Industrial value-added in textiles and clothing, for example, ranges from over 40% in Tunisia to 17% in Morocco and contributes as much as 10% of GDP in countries such as Jordan. In Egypt, the textile sector represents nearly 30% of Egypt's industrial labor force (World Bank, 2006a). For many countries in the region, textiles and clothing are the dominant source of non-oil export earnings – representing on average more than 40% of non-oil export revenues. However, textile exports are concentrated in a limited range of products which are facing growing competition in international markets. Most textile exports are concentrated in men's suits and women's and girls' ensembles and these export products account for 60–80% of total textile and clothing exports. Similarly, export destinations are relatively undiversified – with the EU and US markets representing more than 90% of the textile exports in Morocco and Jordan respectively. Some MENA countries also compete against each other in the US market – notably Egypt and Jordan; others, such

as Syria, also export more heavily to the regional market. Following the gradual elimination of quotas on textiles and apparels under the Multi-Fiber Agreement, MENA textile exporters will continue to face greater competition in traditional export markets. However, export demand for the relatively higher price, higher margin and fashion-oriented products generally remains strong and is an important source of future market potential.

In the typical cotton textile product chain, farmers sell seed cotton to ginning mills or textile manufacturers with pricing terms generally fixed on a landed basis at the buyers' choice of ginning location. At the ginning stage, seeds are removed from the cotton ball through a technology that separates and squeezes the seeds out of the cotton ball by means of rolling rods or machine equipment. In the yarn spinning stage, bales of cotton lint are processed by mixing the cotton and carding it into a web of fibers that is eventually condensed into a sliver of untwisted, rope-like strand. Different methods of spinning produce different grades of yarn. For instance, ring-spinning produces finer yarn while open-end spinning produces coarser yarn. Fabric is produced through the weaving of yarn or the knitting of yarn. Woven cloth is called grey fabric, which is whitish but has a natural yellow tint. This cloth is further treated by various means to improve its appearance and feel, then either bleached, dyed or printed to produce the fabrics used in various products (Consilium International, 2005).

The Syrian Textile and Clothing Industry

Within the MENA region, Syria has the second largest textile industry which employs more than one third of the labor force and generates a significant share of total exports and one quarter of total industrial production. Public sector firms account for 25% of total production but only 10% of fabric and garment sub-sectors (IMF, 2006a). The majority of upstream textile production

is concentrated in Damascus and Aleppo and carried out in large-scale public companies employing on average 700–1150 workers alongside a few large private companies and tens of thousands of smaller firms, many with less than 5 employees.

Syria was the tenth largest cotton producer in the world in 2005 and yields are high. The majority of cotton produced in Syria has high fiber length and is well-suited for most leisurewear garments and household textiles. Cotton is generally produced on private farms and cooperatives and purchased by the government where it is ginned in public processing plants or exported. Farmers require licenses to produce cotton in designated areas and the government regulates the use of water. Cotton production was estimated at over 1 million tons in 2006, with yield per unit of cultivation at 4.3 tons in 2006, the highest in the world after Australia (IMF, 2006b). Production is purchased from farmers and private cooperatives by the Cotton Marketing Organization (CMO) at administered prices set by the Ministry of Agriculture. In general, administered prices have not reflected world price levels and fluctuations; for the most part, administered prices have been higher than world price equivalents, resulting in a producer price subsidy for cotton farmers and higher costs for the textile industry. The cost of this subsidy is paid by the Agricultural Bank which advances funds to the CMO to purchase a specific volume of cotton at an administered price. The CMO in turn reimburses the Agricultural Bank at world price levels – thus the Agricultural Bank has tended to bear the cost of the price differential. Estimates point to a subsidy of over 1% of GDP in 2005.

Cotton imports have been banned so that cotton ginning is generally restricted to government-owned plants under the supervision of the CMO and ginned cotton is sold to the local industry at world prices (since 2001). Cotton yarn production has largely remained a government monopoly and private companies rely on synthetic and blended yarn imports to fill the gaps. Import fees and insurance costs must be paid to the government agency managing production of cotton yarn. Administrative planning

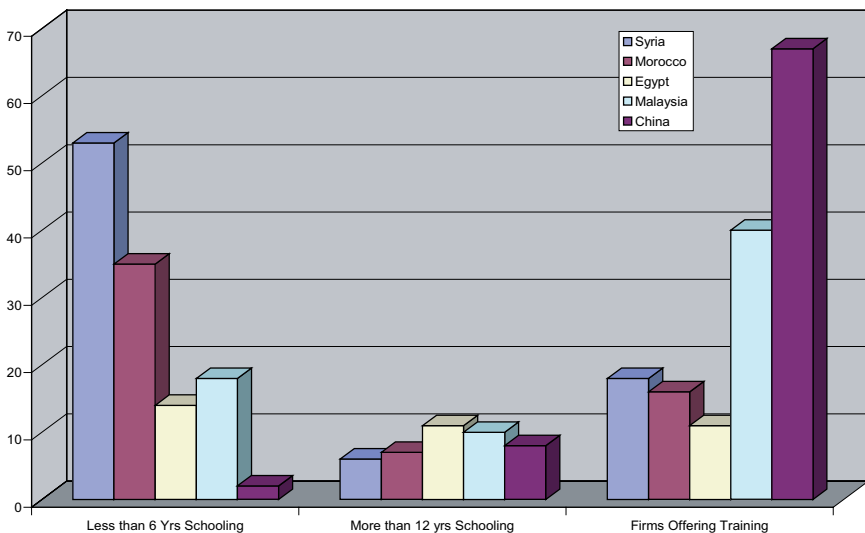
generally determines the amount of yarn sold to the internal market relative to exports. Restricted licenses have been offered to private companies capable of handling integrated processes of spinning, weaving and dyeing but for the most part this has been dominated by public firms.

Most textile production has largely supplied the domestic market; imports of garments and most cotton fabric were banned until 2006, with the result that the industry has remained heavily protected and inward-looking. The ready-made garment industry is largely concentrated in private firms and is well-established for men's wear with knitted garments for ladies and men and predominantly sportswear and casual wear. There are an increasing number of licensed international brand producers opening retail stores in the market. Public firms, on the other hand, tend to concentrate in integrated spinning-weaving and processing plants (Sustainable Business Associates, 2003).

Thus, in Syria, the cotton textile industry tends to be divided somewhat into upstream public segments and downstream private segments. In 2004–5, for example, there were an estimated 26 public companies in the textile industry; more than half of them specializing in cotton spinning and yarn production including synthetic yarns and silk (UNIDO, 2005a). Cotton yarn and wool together with mixed yarn production have been 100% government-owned, relative to 40% of public ownership in cotton fabric production. The downstream segment, on the other hand, is primarily concentrated among private firms and remains fragmented, with more than 14,000 companies in the ready-made garment sector. High levels of public investment in upstream segments of the industry have contributed to low capacity utilization and high capital carrying costs. Public spinning companies are estimated to have deficits ranging from 4 to nearly 70% of production (UNIDO, 2005b). Between 1991–2001, for example, more than US\$ 650 million was invested, primarily in the upstream segment of the industry, with the result that Syria has some of the highest shares of modern ring spindles in the world. In addition, among comparator countries, only Turkey and Italy have more

installed capacity in Open-End Spinning Machines higher and a large share of this equipment in Syria is less than ten years old (UNIDO, 2005c).

At the same time, labor productivity in public spinning mills appears to lag behind comparator countries and there has traditionally been a limit of 7200 production hours per year (UNIDO, 2005c). Value added per worker in garments and textile firms is also low and well behind MENA countries such as Morocco (World Bank, 2005a). Workers in Syria also have significantly lower levels of education and training compared with other MENA and East Asian firms. An estimated 50% of the industrial workforce has less than 6 years of schooling compared with an estimated 2% in China and 20% in Malaysia (see Fig. 1). More generally, the gap in secondary school enrollment is particularly wide; approximately half of the level in Lebanon, Jordan and Egypt at 43% (World Bank, 2005b). Low labor productivity in



Source: World Bank (2005). *Syrian Investment Climate Assessment: Unlocking the Potential of the Private Sector*, Washington DC, p. 36.

Fig. 1 Worker Education and Training in Syria (% total)

general makes the cost of labor inputs for each unit of output more expensive than in other countries and regions in the world.

Firms in the downstream segment of the industry, on the other hand, tend to suffer from low levels of capitalization and marketing skills and are aimed largely at supplying the domestic market. The majority operate as family businesses. Most ready-made garments are retailed through thousands of small private firms, retail shops and others, while international brand producers have their own retail outlets. One public sector distribution company has been one of the largest retailers, with 57 stores across the country engaged in sales of garments and other items sourced from both public and private sectors (UNIDO, 2005d).

Larger companies produce cotton garments certified under ISO 9001, the international standard for quality management systems, and the majority rely on retained earnings for financing. Companies such as the licensees of international brands are well-positioned with marketing and export potential. In addition, a small number of private textile companies have enjoyed windfall profits from tax savings on garments produced in plants established under investment Law No. 10 which allows private firms to operate for specific periods of time with tax holidays. Exports account for 15–20% of textile production and are concentrated among private firms (IMF, 2006b). A central problem for private firms, however, remains sourcing inputs, including cotton yarn from public companies. As noted earlier, private firms have generally been required to purchase yarn requirements from public sector mills. Raw material imports have generally been channeled through a government agency and documentation procedures for importing and exporting are difficult and time-consuming. Rules and regulations frequently include certificates of origin, papers from the Commercial Bank, statements from Customs and others. Customs duties have remained high for most goods, while tariffs on machinery and equipment remained low, thereby raising effective levels of protection.

Thus, the Syrian textile industry reflects some general challenges faced by industrial firms in the MENA region; namely

issues of weak market connections, in some cases, limited prospects for scalability, particularly for firms in downstream segments of the market and low labor productivity. A number of these challenges are linked with upstream concentration in publicly owned firms particularly in cotton ginning and yarn production. Market opportunities are particularly important for inter-industry and upstream-downstream transfers of productivity-enhancing new technology. Experience from industrialized countries suggests that technology spillover tends to occur from originating enterprises to other firms through market-mediating technology, know-how licensing transactions as well as through the hiring of consultant services. In US manufacturing industries, technologically-progressive upstream firms also have incentives to transfer technology to their downstream industrial customers in the expectation that customers' intermediate product purchases will be increased, raising upstream profits and sales (Scherer, 1999). New technology embodied in intermediate components – raw materials and capital goods – also tends to flow from one part of the industrial sector to other industries and firms, enhancing the productivity or product quality of receiving industries.

Plugging into Global Platforms – An Egyptian Textile Exporter

The international cotton textile/garment and apparel chain is characterized as “buyer-driven” which raises a number of challenges and opportunities for firms seeking to expand into global markets. On the one hand, such networks provide opportunities for firms to plug into global platforms with significant opportunities for learning and technology transfer through a process of product and process enhancement. However, such networks also require that firms have the skills, capacity and logistics platforms capable of delivering products according to specification in a timely and cost-effective manner. The buyer-driven production chain tends to be characterized by a lead firm (large retailer, marketer or branded manufacturer) which supplies the

design and marketing and/or retail for a product, but contracts out the production of the product, usually to companies located in export processing zones and/or developing countries. Lead firms are also positioned to control access to major resources which are most profitable – in this case product design, consumer demand or brand names. In this regard, linkages with lead firms can provide opportunities for developing country firms to acquire new skills and access equipment, machinery and new processing methods in order to become successful in producing needed products (Consilium International, 2005).

The case of a large textile exporter in Egypt, for example, which began as a family business suggests that buyer-driven networks can provide important innovation potential for domestic firms (Devlin and Yee, 2005). The company currently owns mills covering 360,000 sq. ft. operated by 1500 employees located midway between Cairo and Alexandria, where the business is run by modern management and production methods. These facilities are operated outside Egypt's Economic Processing Zone (EPZ). The company produces a diversified range of products that include t-shirts, polo shirts, tops, pants, dresses and various items using different yarns, such as 100% cotton, cotton/spandex, melange, etc., and a number of different fabrics including interlock, single jersey, pique, variegated rib, French terry, three thread fleece and others. Among the available finishes are solid color-dyed, yarn-dyed, feeder stripe, all-over print, garment-washed, and others. The firm's business is geared toward export markets as a supplier to upscale customers in the US and Europe.

A significant portion of exports, as much as 90%, have been sent to lead firms in ready-made garments, such as Liz Claiborne and Tommy Hilfinger, while the remaining production has been delivered to other notable accounts such as Calvin Klein, IZOD, Van Heusen, and Bloomingdales. For a shipment of 24,000 cotton shirts of different colors and sizes, the duration for production planning is approximately one month. Samples are produced and tested to ensure quality compliance and control. Yarn is

sourced primarily from India (80%) and Pakistan (20%); the firm typically orders 20% more yarn than required to avoid shortages in the event of losses during production and import delays. Yarn is transported on a regular basis by vessel from the supplier's loading port, such as Mumbai or Karachi, to the Egyptian port such as Alexandria and then trucked to the company's facilities for storage. In addition, accessories such as buttons, sewing threads, hand tags, and price stickers are sourced from suppliers in Hong Kong and the US, as designated by the buyer on a just-in-time basis. Manufacturing goes into full swing through a process of knitting, dyeing, cutting, inspecting, sewing, ironing, inspecting, packing and inspecting again. Export shipments are facilitated with the help of transport intermediaries; the company contacts the buyer to finalize shipping arrangements and instructions are given to the buyer's nominated shipping line/agent in Alexandria to make the necessary arrangements. The large size of the firm, an established buyer network and shipping intermediaries all help to make this a relatively trouble-free export process; albeit with few linkages to domestic firms. To facilitate customs clearance, the company has hired a highly-experienced clearing agent who has the "know how" to handle customs procedures and agents. The large yarn inventory and safety stock provides additional insurance against disruptions in the delivery of raw material but also imposes a production cost much higher than is necessary. Buyers typically mark down the value of the shipment at the expense of the exporter in the event of a delay.

Thus, while breaking into buyer-led networks is challenging, there are success stories in the region. Among the more important factors for efficient entry into such networks is the ability to source high-quality intermediate and raw material inputs as well as capacity for customized production delivered in a timely and reliable manner. From a public policy perspective, this implies that traditional approaches to enhance industrial productivity in MENA countries – by focusing on public ownership and intervention in industrial activity, the provision of subsidized credit,

generally to public enterprises, trade protection and selective incentives to exporters may be less efficient than system-wide investments in well-functioning markets, skills-acquisition and logistics and transport systems. Like other developing countries, characteristics of this “best” practice plant appear to be linked with, among others, multinational presence and/or importing of raw materials, licensing or using existing proprietary technology and a strong human capital base (Kharas *et al.*, 2008a). These factors combined create a degree of scalability and scale economies not necessarily endemic to textile production (World Bank, 2009).

PRIORITIES FOR INDUSTRIAL POLICY IN MENA COUNTRIES

The examples of the textile industry in Syria and Egypt suggest possible priorities for industrial policy for a number of countries in the MENA region. First, there is clearly a need for industrial and corporate restructuring, particularly for public enterprises located in upstream segments of the market. When government-owned firms produce high-cost, low-quality intermediate inputs along with restraints on trade, this undermines prospects for improving productivity, including in downstream segments of industries. Downsizing, restructuring and in some cases privatizing public firms are also important for containing unsustainable increases in public spending and reducing government resistance to liberalizing imports of basic industrial intermediate goods (Lieberman, 1990).

In general, rehabilitating public industrial firms never works well when policy and organizational issues are left for a later date. Specifically, physical rehabilitation and financial restructuring have failed unless policies requiring competitive performance are introduced at the same time and unless financial measures are combined with effective changes in management, organization, technology and marketing. Successful restructuring is typically linked with a sector policy and a subsector

framework which helps to maximize overall welfare and competitiveness rather than serve the survival interests of dominant firms. The experience of most industrial restructuring projects for example, suggests that stand-alone rehabilitation projects which are not complemented by changes in organization, management and methods and which lack a strong marketing and product mix strategy tend to exhibit weak financial and economic rates of return (Lieberman, 1990). Sector policies and investment frameworks are important complementary measures. Analysis covering issues such as how a particular investment project fits within an overall infrastructure sector, i.e. transport, related land use issues, adequate design and analysis of the project including benefits and costs as well as procurement plans, degree of government financing, negotiation of risk sharing with private investor and determining how performance will be regulated are all critical. Linking these considerations with overall public investment spending and budgetary processes, particularly hard sectoral budget constraints can also induce general pressure for more efficient service provision and cost recovery across productive sectors. In many MENA countries, particularly oil exporters, decision criteria for investment projects tends to be unclear and there tend to be few incentives for good project design during oil windfalls. In some countries, a public investment agency which develops guidelines for project development and cost benefit analysis, reviews project proposals and has the authority to reject inadequate proposals has helped to strengthen the investment planning process (Tandberg, 2007). Public investment in sector and industry-wide improvements such as trade and export infrastructure and institution-building is likely to yield higher returns than increased investment in plants and equipment, given the changing nature of global industries.

However, improved management and performance is useful only to the extent that real power and financial arrangements change. This applies to special deals in the form of subsidies, transfers, special credits, sales arrangements for public firms and monopolies on sourcing, production and sales

(Lieberman, 1990). “Public interest” rationales for such interventions – namely the importance of public ownership in strategic industries – are hard to justify and implement. Public and private firms can be expected to produce high-quality goods and services at competitive prices; other objectives almost always are pursued poorly and at high cost. Transitional support in the form of temporary grants have proven to be an effective mechanism for social divestiture of schools and other assets of state-owned entities to local municipalities in the case of Central and Eastern European economies. The reduction and eventual removal of producer and consumer subsidies which complicate decision-making and make performance evaluation difficult is also a priority.

Financial restructuring, in cases where the net present value of the firm’s operating profits and losses carried forward exceed its liquidation value, is also an option – albeit with minimum new investment, the divestiture of non-core activities and the installation of new management (World Bank, 2001). A key element of raising total factor productivity growth is an environment in which resources flow rapidly to efficient firms. Significant evidence from other developing countries highlights the important role of the financial sector in improving an economy’s total factor productivity rather than the quantity of capital (Beck, Levine and Loayza, 2000). Excessive government involvement in banks, on the other hand, weakens monitoring capacities for the financial sector as a whole and there tends to be less demand for better information in other parts of infrastructure as governments are exposed to an incentive conflict – one part of the government is then charged with monitoring the other. It also precludes the ability of other firms in the sector to act on profitable investment opportunities and may force firms to sell important assets. Thus, promoting industrial innovation also requires moving the financial system to greater market-footing through a deliberate and credible phasing out of public ownership of banks while strengthening the financial sector infrastructure.

A key constraint for improving industrial innovation in MENA countries is low labor productivity. Weak incentives and skills on the part of workers limit the ability of firms to adjust their labor force and skill mix in response to market conditions and to take advantage of “windfall” opportunities. At the organization level, this requires streamlined staffing, incentives for performance and retraining for redundant workers. More generally, developing mechanisms to enhance skills transfers in the economy at large includes enhancing the benefits of imported technology and maximizing training opportunities from foreign investors. A key determinant of the growth impact of foreign direct investment, for example, is the extent to which entry into the domestic market improves the productivity of domestic firms. In this regard, public-private partnerships in industrial and manufacturing projects in particular, offer significant opportunities for strengthening local skill-acquisition through the process of technology imports and foreign direct investment. For example, the investment phase of industrial projects typically entails a wide range of technical skills including (i) feasibility and pre-project analytical skills; (ii) skills required in preliminary choice of production methods and in initial design; (iii) detailed engineering-design skills; (iv) skills involved in the choice, acquisition and construction of process and product technology (including machine construction); (v) engineering-construction skills; (vi) commissioning and initial operation skills and (vii) operation skills, including maintenance and repair. Creating more incentives and opportunities for skill transfers in such areas could be a beneficial focus for industrial policy.

Leveraging MENA’s Natural Resource Base for Innovation

In a number of industrialized countries such as Finland, backward linkages to natural resource sectors have provided important opportunities for learning, innovation and labor productivity

growth. Natural resource based industries were an important source of export earnings, then providing a source for investment in modern and efficient production technologies and finally, driving innovation in developing a wider range of internationally-competitive industries and firms through policies to upgrade production factors and lower costs in the overall business environment. In the case of MENA countries, however, the extent to which natural resource-based industries have helped to boost overall productivity growth is not clear.

For MENA oil-exporters such as Algeria and Saudi Arabia, the development of resource-based industries during the 1960s and 1970s tended to be relatively capital-intensive, required substantial complementary investments, generally had few linkages with the rest of the economy and were constrained by shortages of labor skills. Resource Based Industries (RBI), which include petrochemicals, steel and fertilizer, among others, have been centered on the development of industrial sectors based on inexpensive and abundant energy supplies. The aim of this strategy was to capture value-added from processing of oil as well as to provide opportunities for human resource development and skill acquisition, promote technology transfer and contribute to diversification of the economy.

In practice, however, initial large, lumpy investments of RBI have tended to necessitate waves of complementary investments to improve the average return on these projects (Auty, 1988a). In some cases, marketing outlets were also of limited scale. RBI projects have tended to be large – requiring significant amounts of investment and creating natural barriers to entry. The average size RBI project in the 1970s ranged from US\$150 million to several billion dollars. Relative to industrialized countries, most developing countries imported most of the needed equipment and labor skills to build RBI plants. In Saudi Arabia, for example, it is estimated that plant construction during the 1979–81 oil boom was 50 to 70% above costs of the US Gulf Coast (Auty, 1988b). Low capacity usage also lowered efficiency in the RBI sector. Given that the output of an RBI plant is generally well

above the needs of the domestic market, there is a high dependency on export markets and vulnerability to tariffs and other trade barriers.

In Saudi Arabia, for example, the first set of RBI projects included two large export refineries, three olefin units, two methanol plants, a fertilizer plant and a steel plant. Construction costs were estimated at \$12 billion from 1980–85 at the Al Jubail and Yanbu plants and projects were largely completed ahead of schedule and under budget. However, the more significant expenditure was related to the need to build complementary infrastructure in addition to the construction of a \$22 billion gas-gathering system (Auty, 1988c). Furthermore, during the 1980s, falling product prices created additional strains on the profitability of RBI projects, coupled with significant competition from established OECD producers. In the mid 1980s, the European Union imposed custom duties of 13% on Saudi exports of polyethylene, claiming that Saudi exports exceeded 15% of annual EC consumption in the first half of the year (Azzam, 1998). Thus, leveraging natural resources into higher value added export potential requires a combination of policy measures in the area of trade, skills acquisition and a macroeconomic and business environment which does not distort price and market signals. In the case of Saudi Arabia, industrial restructuring in sectors such as non-crude petroleum oils, acyclic hydrocarbons, and insulated wire, may offer enhanced export potential in resource based industry (Ramady, 2005).

Countries which have successfully transformed themselves from natural resource-based economies to high-productivity, knowledge-based economies have typically moved through three stages of industrial development, with associated areas of policy focus (see Table 3). Decisive factors underlying such shifts have included developing close ties with countries and firms providing technology transfer (Dahlman *et al.*, 2006a). In the case of Finland for example, imported equipment was complemented by consultancies during the early phases of industry development, managerial oversight at the plant level and linkages with the

Table 3 Three Stages From Resource-Based To Knowledge Economies

Stage One	Stage Two	Stage Three
Resource-Driven Economy	Investment-Driven Economy	Knowledge-Driven Economy
Leverage abundant, cheap raw materials	Ability and willingness to invest	Domestic knowledge generation
Imported technology	Imported but upgraded technologies Differentiated products	Indigenous innovation, own R&D technologies Products spanning completely new markets
Increase commodity exports	Develop own technology for raw materials processing supporting globally competitive resource-based industries	ICT sector as key driver through pro-competitive policies, light handed regulation, technology-neutral competition.
Process raw materials	Increased trade liberalization leading to growing trade in new sectors. Regional trade agreements support commerce and investments, raising awareness of local firms. Own technology for raw materials processing supporting globally competitive-resource-based industry cluster	Internationalization of local firms – inward FDI to trade and services; outward FDI to manufacturing. Portfolio capital builds stock market and venture capital opportunities. Restructuring financial sector – changes in legal protection of creditors and shareholders, less relationship banking and removal of insider boards.

(Continued)

Table 3. (Continued)

Stage One	Stage Two	Stage Three
Resource-Driven Economy	Investment-Driven Economy	Knowledge-Driven Economy
		Social innovations include: Parliamentary committee for the future; Training on economic policy management and national strategies for policymakers and members of Parliament; Autonomous National Fund for Research and Development which reports to Parliament

Source: C. Dahlman, J. Routti and P. Yla-Anttila (eds.) (2006). *Finland as a Knowledge Economy: Elements of Success and Lessons Learned*. World Bank Institute.

education system. This expertise, together with technology, spilled over into local universities, energizing new scientific disciplines in related fields, along with technical training in sectors where technology was being imported. The next stage of development progressed as higher export revenues were channeled into capital investment, raising the productivity of existing industries and sectors while exploring new and higher value production. Trade liberalization helped to increase contacts with end users and international customers while promoting greater competition in internal trade. In the resource-based industries, closer integration also developed with related engineering and machine-building industries through market transactions and upstream-downstream firm linkages. New engineering consultancies and educational reform also helped to address growing skills requirements while facilitating closer user-producer interactions

between natural resource industries and related engineering industries. Exports also typically expanded to cover a wider range of products including closely-related products. Industrial consolidation also occurred alongside growing capital investments to raise productivity in existing product segments while also shifting attention to higher value-added products in an attempt to enter new markets.

In the third stage, a growing focus on development and adoption of process innovation and technology systems became a key aspect of competitively-integrated production (Dahlman *et al.*, 2006). As the knowledge intensity of production increased, there was a shift in the locus of innovation from plants toward machinery producers and engineering consultancies, in some cases, facilitated by plant operators and maintenance engineers. Indigenous adaptation occurred through incremental innovation, particularly at the plant level. In some countries, the introduction of automated data processing and computerized production introduced first in resource-based industries as a testing ground rapidly became a business area for emerging electronics and ICT sectors. This was supported by economy-wide reforms and investments in improving the efficiency of telecommunications infrastructure together with financial sector and banking reforms. With growing global competition, the natural resource-based cluster moved to adopt new technologies – microprocessors, ICT and others, which also created new opportunities for productivity gains and diversification. Collaborative R&D partnerships were launched between natural resource-based industries and firms, together with machinery and equipment suppliers, universities and national science or technical research centers. At this stage, domestic restructuring and mergers were also required to improve competitiveness, along with a growing focus on integrated and computerized production to save costs associated with higher raw material prices. Growing foreign investment in domestic firms and growing outward foreign investment boosted production efficiencies and innovation in core areas.

Thus, innovation is a process that is highly context-specific and includes a wide range of modifications or adaptations of industrial processes or products including search activities, major and minor adaptations of production techniques and products in addition to development of new products and processes. In many developing countries including those in the MENA region, much emphasis tends to be devoted to innovation in new products based on the assumption of a linear process linked with scientific laboratories and R&D spending. “Big science” projects can also become captured by domestic interests (Scherer, 1999). Market transactions across firms are critical for driving a process of innovation that tends to be non-linear, with innovation and ideas initiated at any point in the division of labor between for example, scientific laboratories, engineering designers, machine producers, machine operators, maintenance engineers and others. Entry points for innovation can include a combination of (i) basic and applied research activity; (ii) experimental development; (iii) engineering design and adaptation; (iv) fabrication of machinery, equipment and production systems; (v) installation and construction of plants; (vi) maintenance and repair engineering and (vii) plant operation. Importantly, not all innovations require specialized skills; many advancements occur through an application of trial and error in the form of changes in the design and fabrication of machinery rather than formal experimental development. Furthermore, it is generally hard to predict the way in which various skills will enter the innovation process; sometimes an idea may be developed by a machinery or equipment producer but after a while, problems may arise requiring the attention of a laboratory researcher or scientific problem-solving. In addition, it is often difficult to isolate the specialization of technical functions – innovators can be broadly-skilled or highly specialized in particular fields.

In many developing countries including those in the MENA region, industrial policy would benefit from a stronger focus on identifying opportunities for innovation and “spreading” effects

of learning and innovation across domestic firms and industries. This requires well functioning institutional mechanisms for enhancing “spillover” to domestic firms and systems for technology transfer, foreign investment and trade. Industrial policy efforts can help coordinate the policies needed for a situation in which these sources of dynamism and innovation are translated into cost-reducing technology adoption and process innovation at the sector and industry levels. With regard to specific incentives to attract FDI through export-processing zones and others, it may be more beneficial for policymakers to use industrial policy to channel MNC efforts into reducing barriers and costs in the domestic economy as well as through efforts to diffuse technology improvements and innovation. Moving MENA economies to greater knowledge-intensity and skill intensity has significant potential for improving overall productivity but also requires complementary reforms in telecommunications and ICT infrastructure as well as improving the functioning of the financial sector and raising the quality of education systems. In addition, some measure of tax and patent policy to encourage national efforts at patent development and technology licensing industry R&D and innovation can complement such market-enhancing efforts.

In many developing countries, the Diaspora community has played an important role in enhancing local innovation and technology transfer. Similar to South Korea and Taiwan in the 1960s and 1970s, MENA states have exported large numbers of highly-educated people. The Arab-American community in the US, for example, is on average richer and better educated than the US population as a whole (Noland and Pack, 2005a). Shares of adult Arab-Americans with a Bachelor’s Degree at 41% are more than twice as high as the national average. In North America, Arabs are also disproportionately employed in management, scientific and professional occupations. Reversal of this brain drain could be an important stimulus for industrial restructuring.

CONCLUSION

Industrial restructuring is an important and effective vehicle for supporting broader structural reforms, particularly trade liberalization and streamlining domestic regulation and incentives. It is also integral to raising rates of total factor productivity growth and sustained improvements in livelihoods. However, the experience of MENA industries such as textiles and energy-intensive industries suggests that much of the impact of industrial policy has focused on the provision of subsidies and high rates of protection, resulting in an industrial structure characterized by the prevalence of large public firms, a few large private firms and numerous small enterprises largely focused on the needs of domestic markets. Industrial sectors tend to be characterized by low levels of overall productivity as well as broad gaps in productivity levels between workers and firms. There are also wide gaps between upstream and downstream capacity across industries, as well as generally low levels of skill intensity and in some cases weak economies of scale in industrial output. The typical response has been an attempt to close these gaps through creation of selective incentives and islands of high productivity through the expansion of export processing zones and industrial cities. While such efforts can provide an important source of dynamism, much will depend on the extent to which such investments pay off with regard to improving domestic innovation potential and skills accumulation more broadly. The experience of sustained, high-growth economies suggests that incentives to attract foreign direct investment have included, among others, increasing the rate of inbound transfer of knowledge and technology to domestic individuals and institutions (El-Erian and Spence, 2008).

For the most part, innovation tends to be linked with a host of unexpected and expected factors, related in some cases to one-off type events — i.e. the opening of a market niche. The extent to which such factors can boost innovation and productivity potential depends largely on private initiative as well as the ready availability of capital, strong labor skills and prevailing institutional

capacity. Industrial policy efforts thus can complement broader adjustment policies in such areas by developing more detailed knowledge of product-by-product and industry sources of cost efficiency and innovation. At the same time, there is a need to cast the net more broadly to facilitate the rise of new ideas and products or simply better ways of doing things across a wider range of firms and workers.

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The Keys to the Future: Human Capital Development in the MENA Region

The MENA region has achieved dramatic gains in human development in the post-WWII period. While population growth outpaced most other developing regions, adult literacy nearly doubled, years of average schooling for those 15 and older increased nearly four times and mortality rates for children under five declined significantly. Improvements in literacy rates and declines in infant mortality also continued throughout the 1980s. This chapter seeks answers to the following: What factors underpin such large gains in human development in the post-war period? What measures are needed to enhance the role of human capital as both an instrument for and outcome of successful growth strategies?

HUMAN CAPITAL AND GROWTH

Increasing human capacity is the key to economic success in a global economy where countries compete increasingly in terms of skilled labor and ideas (World Bank, 1991a). Governments across the world are investing in people and households at a faster pace, as a direct channel for raising living standards, as well as increasing productivity, attracting capital investments and boosting the earning power of society at large. Better health, education, and social protection outcomes are an important part of this story.

Investments in people are highly complementary and population growth, health and education outcomes are closely interrelated

in developing economies. Population growth is affected by changes in birth and death rates — which are themselves affected by health and education attainment. Better nutrition, for example, raises the returns to education by improving school attendance and formal learning processes. A mother's education has significant effects on child mortality and family planning. But higher levels of schooling and human capital do not automatically translate into higher growth. Much depends on the overall environment for investment. More social spending can neither compensate for, nor overcome an environment which is inimical to growth. Societies everywhere can and do invest in the wrong type of human capital or in low quality human capital. This prevents households and individuals from acquiring basic numeracy and literacy as well as more specialized skills such as managing complex tasks and adapting new technology needed to improve livelihoods in today's world. Whether it is the failure of university graduates to find employment, or other symptoms in the economy at large, expenditures on the quantity and quality of human capital do not always lead to growth.

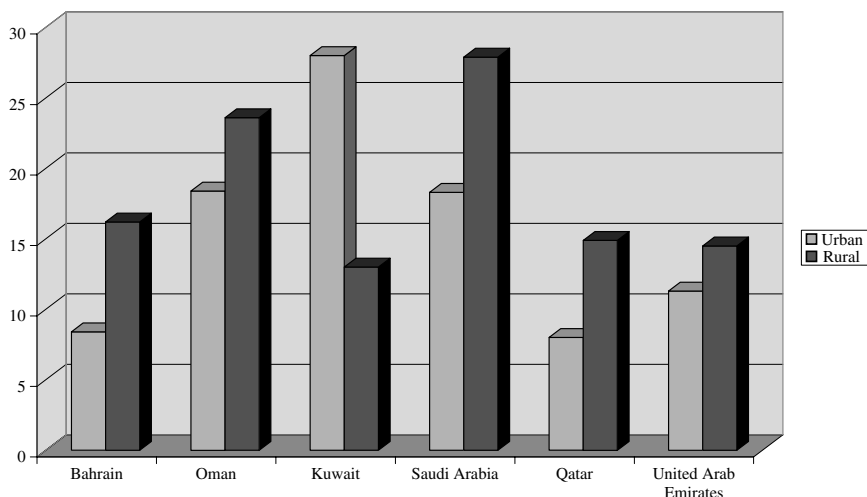
POPULATION AND DEMOGRAPHY IN MENA COUNTRIES

The MENA region has a vibrant and growing population relative to other developing regions. From 1950 to 2000, the region's population increased nearly four times, from an estimated 100 million in 1950 to 380 million in 2000 (World Bank, 2008a). This was faster than nearly all other developing regions and is attributed to factors such as rapid declines in mortality and slow declines in the region's high fertility rates. Relative to other developing regions, MENA countries began the post-colonial period with some of the highest infant mortality rates in the developing world. In 1960, for example, rates of infant mortality were on average over 200 per 1000 live births, higher than most other developing regions including East Asia and Latin America and the Caribbean. By 1990, however, infant mortality had declined to less than 60 and in 2006, was 34.

However, the decline in infant mortality rates tends to vary across countries in the region and within countries according to income levels. In Egypt, Morocco, and Yemen, for example children of the poorest 20% of the population are more than twice as likely to die before they reach their fifth birthday, compared with children in the highest income bracket (Iqbal, 2006a). More than four times as many mothers in the poorest group are malnourished compared with those in the richest income bracket. In Yemen, the poorest 20% of the population has among the highest infant and child mortality rates in the world. In the Gulf states, differentials in rural and urban infant mortality rates can also be significant (see Fig. 1).

Much of the region's population growth has been concentrated in cities but the fastest growth in some countries has occurred in secondary cities such as Jeddah. By the 1990s, approximately half of the population of most Arab countries lived in cities – more than 50% in Kuwait, Saudi Arabia, Lebanon, Jordan and Algeria. The interaction of trends in fertility rates and patterns of urbanization have been such that the process of urbanization itself has influenced the rate of population growth – mortality in urban areas is declining but fertility rates are declining even faster due to better access to health services and greater economic opportunities for women (Assaad, 1995a).

Levels of spending on health on average are comparable with other middle-income regions. However, there are variations across countries – in 2005, for example, Lebanon and Jordan spent 8% or more of GDP on health expenditures and services relative to 2.5% for GCC countries such as Kuwait and Oman. In Lebanon, most health expenditure is private sector spending relative to the GCC countries where the majority is public spending. While the level of subsidies for health services is high across the region, benefits tend to be captured to a larger extent by households in upper income brackets – in Algeria, for example, the share of household health expenditure for the poorest 10% of the urban population is three times higher than the share for the richest 10%; for the rural population it is twice as large (Iqbal, 2006b). Further challenges for the health sector include continuing



	Urban	Rural
Bahrain	8.4	16.2
Oman	18.4	23.6
Kuwait	28	13
Saudi Arabia	18.3	27.9
Qatar	8	14.9
United Arab Emirates	11.3	14.5

Source: Mohammed, N (2003). *Population and Development of the Arab Gulf States*. Hampshire: Ashgate, p. 35.

Fig. 1 Rural-Urban Infant Mortality Rates in the Gulf States (1998)

progress on protection of maternal and child health, combating communicable diseases and developing an approach to increasing rates of non-communicable diseases. There is also a nutrition transition underway in which shifts in physical activity and diet are resulting in high prevalence of obesity and growing difficulties with chronic, degenerative diseases (Claeson, 2004) (See Box 1).

Better health outcomes have contributed in part to declining fertility rates, as improvements in health lower infant mortality rates, contributing to lower desired fertility rates as couples expect

Box 1 Select Challenges for Public Health in MENA Region

Significant and rapid progress in maternal and child health programs across the MENA region has included introducing and expanding integrated management of childhood illness and comprehensive reproductive health services. However, inequities and gaps remain in access to the full range of quality services. A number of countries are dealing with acute protein energy malnutrition (Iraq) and vitamin A deficiency as well as iron deficiency anemia. In countries such as Morocco, malnutrition is an issue with its risk for non-communicable diseases such as diabetes due to the shift towards an energy-dense diet, resulting in increasing levels of obesity that tend to be inversely associated with education and positively associated with income. Twelve countries in the region have introduced Integrated Management of Childhood Illness (IMCI) interventions which aim to address childhood illness and nutrition through more rational use of drugs, reduced duplication in structure, organization and management of separate childhood disease control programs, among others. The IMCI provides a holistic approach to the individual child and provides tools for decentralized training, supervision, monitoring, drug management and organization of the workplace as well as protocols for common pediatric conditions in children under the age of 5. MENA countries also took early steps to introduce mother-baby packages based on antenatal care, obstetric care, post-partum and neonatal care and family planning.

By the end of 2000, 18 out of 23 countries in the region had achieved introduction and expansion of DOTS (Directly Observed Treatment, Short-course) as the standard for tuberculosis (TB) control. In malaria control, progress is being made through the Roll Back Malaria program with regard to efforts to expand early treatment and use of insecticide-treated nets. HIV/AIDS is a particular problem in countries such as the Sudan where injecting drug users are at particular risk for HIV transmission. The MENA region is generally doing well with regard to the Expanded Program on Immunization with few countries in the region (with the exception of Egypt) classified as being polio-endemic.

Non-communicable diseases include cardiovascular disease, diabetes and others; one of the most important risk factors is tobacco use. Controlled trials, cost-effectiveness and feasibility studies are needed to assess the public health application of simple and relatively cheap drugs in outpatient primary

(Continued)

Box 1 (Continued)

care for these diseases. More research is also needed to identify optimal implementation strategies for preventative diet, exercise and lifestyle changes. Comprehensive cancer prevention and control approaches include screening, early detection and occupational health programs as well as targeting of selective major risk factors. There is a consensus that measures to screen or diagnose cancer should be used only if the disease can be effectively treated and/or palliative care and support can be provided. Priority actions include reducing critical risk factors and incorporating cancer prevention in ongoing programs such as reproductive health, case management of sexually-transmitted diseases, immunization, tobacco control and others.

Source: M. Claeson (2004). Public Health “Best Buys” in the MENA Region in *Public Health In the Middle East and North Africa: Meeting the Challenge of the Twenty-First Century*. World Bank Institute, Washington DC, pp. 55–66.

more children to reach adulthood. However, the MENA region remains somewhat unique among other developing regions with a prevalence of relatively high fertility rates given health indicators and income levels (Omran and Roudi, 1993). While fertility rates have declined since the 1960s when the average number of children per woman of child-bearing age was 7, they remain high, in comparison with other middle-income regions – estimated at 3, relative to countries in East Asia and the Pacific, Latin America and the Caribbean in the 2000s.

Within the region, the pace of fertility decline has also varied across countries – falling most rapidly in Tunisia and Lebanon, followed by more recent declines in the GCC states such as Kuwait where total fertility rates were approximately 2.3 relative to over 3 in Oman and Saudi Arabia in 2006. Yemen has experienced the smallest change in fertility, with an estimated 5.6 children per woman (World Bank, 2008). Slow declines in fertility rates and differences across countries are linked to some extent with increasing levels of female education and labor force participation. Female

education affects fertility rates by providing access to better information on family healthcare and planning. At the same time, greater labor market participation by women is associated with higher education levels and raises the opportunity costs of having more children, resulting in delayed marriages and lower fertility. Long-term increases in income and rates of urbanization also tend to lower the fertility benefits of additional children while raising the costs. But cultural factors also play a role (Mohammed, 2003). In GCC states such as Oman, Saudi Arabia and the UAE, marriage is an important determinant of fertility. The median age at marriage was 15 years in Oman and 16 in Saudi Arabia and the UAE, during the 1990s. Marriage and child-rearing have also played a historical role in strengthening inter-tribal and family alliances and networks, while minimizing the risks of confrontation among groups living in close proximity.

Closing the Gender Gap

As noted above, improvements in health outcomes have not left women behind: life expectancy was estimated at 70 years in 2002, relative to 66 years in the 1990s and 53 years in the 1970s (World Bank, 2004a). Maternal mortality rates remain higher than middle-income averages particularly in countries such as Yemen. Again, this tends to vary across rural and urban areas – maternal mortality tends to be higher in rural areas where women tend to marry at an earlier age and have less access to healthcare.

Today, MENA countries on average have near gender parity in primary and secondary education enrollment rates and for many countries in the region, and at the level of higher education, women tend to outperform men. Female enrollment rates are higher than males and more women complete this level of education (Livani, 2007, p. 11). In the GCC states, for example female students outnumber male students by a significant margin.

Average years of schooling for women increased from approximately one year in 1960 to an estimated 4.5 years in 1999 – one of the largest gains for any region in the world (World Bank, 2004b).

Female literacy rates also improved rapidly from an estimated 16.5% of literate adults in 1970 to more than 60% in 2004, but this is still below nearly 90% for middle-income countries (adults). There are also significant gaps in adult literacy across generations of women. In Saudi Arabia, for example, an estimated 94% of female youth (aged 15–24 years) were literate relative to approximately 69% of female adults (15 years and over) in 2004 (Livani, 2007a).

However, the gap in female labor force participation rates is wide and has changed little since the 1960s. This remains an overriding concern for policymakers in the region (Handoussa, 2000). Estimates of female labor force participation rates or the proportion of the female population that is economically active are less than 30% for the region as a whole and are well below other developing regions (see Table 1). This gap has changed relatively little in the post-WWII period relative to other human development indicators, from an estimated 22% of female labor force participation in 1960 (World Bank, 2004c).

A Demographic Window of Opportunity

The slow decline in MENA's fertility rates is linked with the region's "youth bulge" and a demographic "window of opportunity" for faster growth. Dependency ratios are influenced by a number of factors, including the population age structure, gender ratios, and others. Relative to other middle-income regions, dependency ratios in MENA countries (that is the share of the economically dependent to the working age population) have been high historically. From 1950–1980, they averaged 0.90, meaning that there were 90 dependents for every 100 adults of working age, which likely had significant influences on growth rates in some MENA economies. In East Asia, by comparison, peak dependency burdens were lower and occurred much earlier, at 0.76 in 1965 (World Bank, 2004d).

Many economists point out that the period immediately following a fertility decline opens a window of "demographic opportunity," which lasts for one to two decades at best. This youth

Table 1 Female Labor Force Participation Rates (1980–2003)

	1980	2003
Algeria	21.4	29.9
Bahrain	11.0	22.9
Egypt	26.5	31.4
Iran	20.0	29.4
Iraq	17.3	—
Jordan	14.6	25.5
Kuwait	13.0	23.9
Lebanon	22.7	30.2
Libya	18.6	24.7
Morocco	33.5	35.2
Oman	6.3	20.1
Qatar	6.4	17.9
Saudi Arabia	7.6	20.2
Syria	23.5	27.9
Tunisia	28.9	32.7
United Arab Emirates	5.1	14.5
West Bank & Gaza	—	12.8
Yemen	32.5	28.9
China	43.2	45.0
Indonesia	34.8	41.2
Rep. Korea	38.7	40.7
Malaysia	33.7	38.4
Philippines	34.7	38.3
Thailand	47.6	47.0

Source: World Bank (2008a). *The Road Not Traveled: Education Reform in the Middle East and North Africa*. Washington DC: International Bank for Reconstruction and Development, p. 64.

bulge has favorable implications for the increased supply of labor and human capital (Barlow, 1994; Williamson and Yousef, 2003). Between 1990 and 2020 for example, the growth of the economically active population in MENA will exceed that of the economically dependent population by a higher magnitude than other developing regions. The experience of East Asia suggests that this differential can provide opportunities for faster accumulation of factors of production. Higher savings rates, investment and

growth can be generated by a larger pool of potential workers. However, much depends on the extent to which policymakers leverage this “demographic gift” through policies to accelerate capital accumulation and productive employment.

EDUCATION

Education affects productivity and growth through several channels. A more educated labor force is expected to increase growth by improving labor as a factor of production but also raises overall productivity to the extent that workers develop new ways of using existing technology or develop a new technology. This innovation or learning-by-doing potential of labor is the basis of endogenous growth models (Romer, 1990). Education is also important for encouraging entrepreneurship. Higher levels of education allow for more rapid absorption of new information and the ability to develop new products and processes. Factors underlying entrepreneurship – the ability to take moderate risks, undertake long-range planning and organizational ability as well as an enhanced sense of individual responsibility are all linked with higher educational attainment (World Bank, 1991a).

Empirically, however, it is difficult to assess the payoffs from education investments. At the microeconomic level, the results are more straightforward: individual earnings appear to be positively related to education and productivity levels (Psacharopoulos, 1973; Carnoy, 1995). At the macroeconomic level, variations in economic growth rates between countries can be partly explained by the initial level of human capital but it is difficult to show that higher levels of investment in education raise growth performance (Pritchett, 1999a; Benhabib and Spiegel, 1994a). This is likely due to circumstances in which human capital is poorly used. Greater investment in human capital can neither compensate for, nor overcome an environment which is not conducive to growth. Also, human capital investments can be in the wrong type of skills and/or of poor quality. Other approaches highlight the degree of equity in human capital accumulation – finding a generally

negative correlation between the Gini coefficient of human capital distribution and economic growth. In other words, the larger the disparities in education in the labor force, the smaller the predicted increase in income per capita (Lopez *et al.*, 1998; Birdsall and Londono, 1997).

For the MENA region, empirical studies find at best, weak evidence of a link between education and growth. Panel analysis of 86 countries, including those in the MENA region, suggests that there is no significant effect of education on growth. Furthermore, whereas education is shown to have a positive impact on growth in Asia and Latin America, it appears to have a negative correlation in the MENA region (Pritchett, 1999a). These results are underscored in more comprehensive specifications which include measures for openness, institutions and others, in which there is a weak, but not significant, correlation between initial education and growth (Fattah, Limam and Makdisi, 2000). In terms of improving social welfare, human capital is also a primary vehicle for the battle against poverty. Public investments in education early in life, for example, tend to be effective mechanisms to address equity issues, relative to other programs which attempt to minimize differences in outcomes later in life. By the age of 20, for example, differences in initial levels of education explain significant differences in lifetime earnings and lifetime wealth.

A Framework for Education Reform

Many countries, including those in the MENA region, have undertaken reform measures to enhance the efficiency of education systems to improve the quality of learning outcomes. In general, such efforts have tended to focus on five principal areas including (i) expanding and equalizing educational opportunities; (ii) improving the internal efficiency of education systems; (iii) strengthening relations between education and work; (iv) improving management of educational systems; and (v) insuring adequate financing of education. Given its complex linkages with economic growth and the linkages between the effects of higher

education and the importance of prevailing economic, political and social structures, policymakers tend to view education both as a means and an instrument of development, rather than as purely a productive sector for development potential such as agriculture or industry. Education, is in fact, a pervasive element to be integrated, both horizontally and vertically into development efforts across the board. Furthermore, the experience of developing countries suggests that general education is as important to development efforts as training in specific skills and the introduction of ICT in learning systems.

The demands of globalization, in particular, require developing an education system that promotes higher-level thinking, problem-solving skills and teamwork. Overall, this necessitates an approach which is flexible and views the attainment of educational outcomes as resulting from a fluid network of various modes of provision for education and training, both public and private. This is a particular challenge in MENA countries where there is typically limited coordination at the system level between the various providers of educational opportunities. The ministry of education, for example, tends to oversee early childhood education and basic and secondary education while the ministry of higher education tends to be responsible for colleges and universities. Technical and vocational training programs, on the other hand and applied vocational education tend to be under the authority of the ministry of labor. Mechanisms for coordination across these institutions are generally few and far between.

Ensuring broad-based access to basic education is typically the first priority and implies providing education services in such a way that there is equality in enrollment ratios of various subpopulations across regions.¹ Establishment and monitoring of such targets can help policymakers to identify inadequacies, as well as help to rationalize plans for distribution of educational services. More generally, and in a few cases where universal primary

¹ The following paragraphs are based on findings from a number of World Bank reports on education reform including in the MENA region.

education has still not been achieved, there are issues related to the competition for resources between increasing the number of years of primary schooling and improving the quality of education being offered to those already enrolled. Balancing such vertical and horizontal distribution of services is a key challenge for policymakers. Other mechanisms to expand and equalize access include mobilizing local resources, particularly at the community level, and planning locations of schools more systematically to reach target groups.

Basic education, in particular, can be expanded quickly and at relatively low cost by using existing means of delivery and adapting them towards a unified system. This is the case for expansion of early childhood education programs, for example. In the case of Jordan, analysis suggests that expansion of existing schools through two-room extensions were 60% less expensive than construction of an independent kindergarden unit (World Bank, 2003). However, such efforts must be coordinated within an overall school system and location plan, together with the use of disaggregated demographic, geographic, social and economic data to monitor the distribution, size and spacing of schools, where possible, and to determine the kind of facilities needed.

Access is also linked with the underlying demand for education services and it is important for policymakers to understand determinants of the demand for education services. In the case of extending access to out-of-school youth and adults for example, much can be achieved through cross-sectoral approaches that combine education and training with livelihood activities. In particular, it is important to develop learning activities which visibly and directly contribute to improved livelihoods. Questions will arise regarding the use of limited resources in high-risk areas/groups where unit costs may be higher and whether the same investment in other areas could create twice as many enrollments for an equally needy group that would use added resources more fully. Equalizing access to education facilities does not necessarily ensure equal use of these resources across population groups and political economy factors play an important role. It may also

be necessary to assess which factors promote or hinder the achievement of specific kinds of learning outcomes and whether these factors are distributed equitably. For example, school factors such as curriculum, instruction, teachers, instructional materials and physical facilities can explain part of the variance in learning outcomes but factors outside the school such as home background, early childhood experience and nutrition also play an important role.

As enrollment rates grow, the relative importance of achieving greater internal efficiency increases, particularly in light of the need to maintain the flow of students through the system while improving the quality of learning achieved as well as expanding access. Inefficiencies in school systems, as measured by the flow of students, is captured in part, through the number of dropouts and repetition of grades in the education system. High dropout and repeater rates can also have a regressive effect on equity in the school system if the economic profiles of these groups tend to be linked with low socioeconomic backgrounds. Promoting a better flow of students through the school system can be achieved in part, through more efficient use of teachers and space resources – as well as adjusting the size of classes, teaching loads and the weekly contact hours between students and teachers.

With regard to the quality of learning or the learning achieved – outcomes can be assessed in part, in the form of knowledge, skills, behavior and attitudes as measured by tests, diplomas or other indicators including the ability of people to be socially and economically productive. Measuring such components can benefit from determining an appropriate set of indicators with full buy-in by stakeholders and monitoring progress in specific areas. In Kuwait, for example, policymakers recently launched the development and monitoring of key performance measures across the education system. Improving learning outcomes generally involves raising the quality of school inputs such as curriculum, style of teaching, qualifications of teachers, instructional materials and in some cases, the greater use of ICT, mass media and other

technologies. Background factors related to health, nutrition and preschool education are also important.

With regard to curriculum adjustment and development, this is typically considered to be a principal element of educational reform and is an important priority in many MENA countries. However, in many developing countries, curriculum development has been confused with revising syllabi and the adoption of curriculum developments elsewhere without a focus on the dynamics of the national economy and frequent neglect of complementary inputs such as teachers, textbooks and physical resources. Many curriculum projects do not include monitoring and evaluation procedures to enable necessary revisions. Ideally, curriculum development involves an in-depth assessment of education objectives with respect to outputs and outcomes, analysis of and organization of learning content, as well as monitoring development of corresponding textbooks, instructional materials, training courses and facilities. Much of this depends on the country context. Some concerns include the extent to which a curriculum is linked with principal concepts, relations and theories of various disciplines and the degree to which it incorporates dynamics of knowledge generation such as observation, measurement, classification, induction, deduction, verification and appreciation. Curriculum reform tends to occur in line with improvements in the processes of teaching and learning, with emphasis on discovery, new science, practical activities and experimentation. Developing a balance between theory and practice is critical. Overall, curriculum development can support the idea that learning is a continuous and life-long process. Thus, there may be benefits to organizing the curriculum in small units approaching a continuum to allow for greater experimentation as well as facilitating the focus on the student as the center of learning program. For many MENA countries, the current model is a traditional, hierarchical and top-down model of educational attainment as opposed to a participatory, outcome-based and student-centered model.

Teacher effectiveness – including improving the selection and training of teachers is critical for improving learning performance

as well as achieving efficiency gains. Teacher salaries tend to represent a significant share, more than 80% in some cases, of recurrent educational expenditures in many developing countries including those in the MENA region. While developing and applying appropriate norms for student/teacher ratios is important, improving methods of teacher selection and training are also critical. Strong teacher personality traits and qualifications are conducive to higher student achievement rates. Policymakers have a role to play in expanding training opportunities for teachers, developing systemized in-service training as a continuing activity, improving the quality of training programs by incorporating methods and techniques of selection and teaching that have proven effective elsewhere and by relating training to specific skills and provision of resources to assist teachers in improving the quality of teaching.

Improving the design, production and distribution of learning materials including equipment and textbooks is also important, as well as ensuring the availability of high-quality textbooks. An efficient program for producing such materials requires a consensus on curricula and syllabi, expertise in design, preparation and evaluation of materials as well as training of teachers in the use of these materials and related technologies. In some cases, mass media and distance learning can be cost-effective complementary inputs by improving the quality of instruction in traditional subjects and providing instruction in subjects for which qualified teachers may not be available. They can also supplement areas of curriculum reform. Thus, combining quantitative and learning efficiency is important for both maximizing the flow of students through the education system and identifying and eliminating bottlenecks that affect the costs and quality of learning. The typical approach including in the MENA region has been to increase fiscal resources, but this does not automatically improve the quality of learning. What is needed is a good understanding of cost-effective combinations of inputs including curricula, teachers, instruction materials, the use of ICT and others and their relationship with learning outcomes.

A growing area of focus for improving education systems, particularly in the MENA region, relates to strengthening the interface between education systems and employment opportunities. Adaptability and expertise in particular areas are increasingly critical for helping countries and workers to enter successfully into global platforms. According to the OECD, the essential skills of a knowledge economy are critical thinking, problem-solving, decision-making, using numbers, communication skills, managing information, being responsive, learning continuously, entrepreneurship, adaptability, teamwork, innovation and creativity. At present, however, most education curricula focus on subject matter content, not all of which are relevant or essential for finding work in a knowledge economy.

Strategies for improving the linkages between education and work tend to require more general efforts at addressing significant wage and benefit differentials across labor markets, queuing for preferred jobs and the associated distortions in educational attainment. Learners should also be expected to bear an increasing share of educational costs as they advance through the education system. This can help to address the overqualification syndrome characteristic of education systems in many developing countries. When job specifications are related to minimum levels of education and skills rather than education credentials, this also enhances education and work linkages. Other mechanisms can include developing effective counseling and placement services and on-the-job learning opportunities.

At the level of secondary education, many countries have diversified the curriculum by introducing practical or occupational streams into an otherwise completely academic program. In Jordan, for example, secondary education consists of a comprehensive (academic and vocational) and an applied track of learning which leads to pre-employment or apprenticeship-training. Post-secondary education is available through both public and private community colleges and universities. Overall, it is important to weigh the decision to diversify in terms of introducing a large number of applied occupational streams against other priorities for educational investment on the basis of educational objectives and

country needs. Diversified and applied occupational streams at the secondary level are expensive to develop and maintain and can grow at the expense of more general skills development in communication, mathematics and science. Another problem is accurately predicting the requirements for specific skills in the economy. For this reason, full-time pre-employment vocational training tends to be more effective to the extent that it provides training in general skills that can be applied in a variety of work situations. This training can also be useful to prepare graduates for additional on-the-job training and/or transition to designated technical schools. Much depends on the extent to which schools, employers and policymakers interact; stronger linkages tend to deliver better results.

At the post-secondary level, polytechnic schools and community colleges are important complements to universities. Such institutions can concentrate on narrow, industry-related fields, provide short programs and relate more directly to the requirements of the economy. In many cases, these institutions can be complemented more generally by the expansion of adult and continuing education programs as well as distance learning programs. In addition to general vocational training, on-the-job training at the firm level through "project" related training provides opportunities for more specialized skill accumulation and experience. Project-related training is linked with managerial, technical or operational skills pertaining to a particular firm or sector. As such, it can be complementary to the general curriculum by being job-oriented rather than subject-oriented as well as being more closely linked to the direct needs of the economic system. Work experience can also be an important catalyst for improving education and learning outcomes. More generally, there is a broad scope of possibilities for enhancing the interface between education and work; the question becomes which method is more cost-effective under certain circumstances, including consideration of economic and institutional factors. Factors to consider include the cost of training, the urgency with which such skills are required and the profitability of training to individual enterprises.

Finally, reform of education systems is intricately linked with improving educational administration and management as well as developing sustainable financing options. Some common challenges include the need for well-trained school principals – together with a well-functioning administration. Responsibilities for education and training tend to be horizontally dispersed across national ministries while within the system of education administration, responsibilities for decision-making are vertically dispersed across ministries of education, local authorities, communities and schools. In many countries, the national ministry of education is overburdened by daily administration duties of educational logistics at the expense of policymaking functions. Education planning has done little to help in this regard, traditionally focusing on setting goals without sufficient attention paid to linking goals to learning outcomes as well as identifying the means of achieving these goals. There is a need for greater use of tools such as systematic cost-effectiveness, feasibility studies of alternative methods of training and others. Research and experimentation in educational expansion and reform has been limited, while quantitative data and analysis have not generally played an integral role in the policy and decision-making process.

Improving education management capacity, in some cases, has been facilitated by realigning organizational structures, styles of management and management training. Management policy and procedures can be formulated in such a way that educational administrators at various levels become important participants in making and implementing decisions – which can be facilitated through a redefinition of roles and functions at each level regarding who will be responsible for decision-making, financial authority and training of educational personnel. For the MENA countries in particular, what is needed is a realignment of vertical and horizontal responsibilities towards gradual devolution of responsibility and accountability to the district and school levels. Active engagement by parents and teachers' associations as well as teachers and civil servants are vital in making such efforts a success.

With regard to financing of education systems, many countries have growing public and private financing options, although public resources tend to be decisive because of their significance in determining the scope and direction of educational development. Education expenditures are rising with the gradual shift in total enrollment towards higher, more expensive levels of education such as tertiary education. The higher the differences in unit costs in terms of expenditure per student at each level, the more costly educational expansion becomes. Escalating costs are also linked with efforts to raise educational standards and improve the quality of inputs. There are also built-in escalators related to teacher and administrator salaries which are often governed by automatic cost increases for years of service and added qualifications. Thus, maintaining high shares of government spending on education requires higher rates of economic growth, particularly given growing demands for other essential services, investments and other demands on available resources.

Improving financing of education involves finding additional sources of resources and improving the efficiency of the educational process by reducing unit costs. A large number of countries, including those in the MENA region, are tapping local communities and households to a greater extent to help finance the cost of running schools. Fees and loans for post-elementary education, balanced by the provision of scholarships are other options. External assistance is also provided to help countries in this regard, both at the low and middle-income levels. Improving cost efficiency is a particular concern at the secondary and tertiary levels, and in some countries, has been addressed through measures such as adjusting teaching loads and ratios of students to staff, eliminating unnecessary diversity of courses, using space more efficiently by means of space-use analysis, introducing accelerated courses of study, year-round programs and in some cases, shorter, more intensive training periods. Non-teaching costs can be reduced by improving management in program-budgeting, cost analysis and procurement practices.

EDUCATIONAL ACHIEVEMENTS IN THE MENA REGION

Since the 1960s, MENA countries have made dramatic gains in education. Education levels are moving closer to those in high-income countries, with nearly universal enrollment at the primary level; the majority of students enrolled in secondary school (75%) and a tertiary gross enrollment ratio of 26%. However, there are serious challenges related to what children and youth are learning in school and how it relates to future prospects for employment.

Relative to other middle-income regions, the MENA countries inherited a very weak educational system in the post-colonial period. Average years of schooling (of the total population aged 15 and over) were dismally low, at slightly over one in the 1960s compared with more than three in other middle-income regions. Within the region, this ranged from more than 2 in Jordan and Kuwait to less than one in Algeria, Iran, Iraq and Tunisia (World Bank, 2008b). The region has a relatively high rate of adult illiteracy, estimated at one in five adults for the region as a whole in 2003 and representing about 1.5% of the global illiterate adult population. In countries such as Morocco and Yemen nearly one-half of the population is illiterate. The MENA average, with an estimated 22% adult illiteracy rate, is more than twice as high as in other middle-income regions.

For most countries in the MENA region, education became a constitutional right in the post-WWII period. Nearly all governments in the region grant the right to at least free primary education for all in the constitution. During this period, many countries offered free secondary and higher level education together with guaranteed public employment. In addition, most states have enforced compulsory education policies with attendance requirements that extend years beyond the primary level (see Table 2).

Shares of public expenditure on education have been among the highest in the world – averaging 5% of GDP between 1965 and 2003, well above levels in East Asia and Latin America and the Caribbean at approximately 3% (World Bank, 2008c). On average,

Table 2 The Right to Education in MENA Constitutions

Algeria	Article 53. The right to education is guaranteed. Education is free within the conditions defined by the law. Fundamental education is compulsory. The state ensures equal access to education and professional training.
Egypt	Article 18. Education is a right guaranteed by the state. It is obligatory in the primary stage and the state shall work to extend obligation to other stages. Article 20. Education in state educational institutions shall be free of charge in its various stages. Article 21. Combating illiteracy shall be a national duty for which all the people's energies should be mobilized.
Iran	Article 3. The government of the Islamic Republic of Iran has the duty of directing all of its resources to the following goals... (3) free education and physical training for everyone at all levels and the facilitation and expansion of higher education. Article 30. The government must provide all citizens with free education up to secondary school and must expand higher education to the extent required by the country for attaining self-sufficiency.
Jordan	Article 6. The government shall ensure work and education within the limits of its possibilities and it shall ensure a state of tranquility and equal opportunities to all Jordanians. Article 20. Elementary education shall be compulsory for Jordanians and free of charge in government schools.
Lebanon	Article 10. Education is free insofar as it is not contrary to public order and morals and does not interfere with the dignity of any of the religions or creeds. There shall be no violation of the right of religious communities to have their own schools provided they follow the general rules issued by the state for regulation of public instruction.
Morocco	Article 13. All citizens shall have equal rights in seeking education and employment.
Syria	Article 37. Education is a right guaranteed by the state. Elementary education is compulsory and all education is free. The state undertakes the responsibility to extend compulsory education to other levels and to supervise and guide education in a manner consistent with the requirements of society and of production.
Yemen	Article 37. All citizens have the right to education. This right shall be guaranteed by the state, through the establishment of different schools and educational and cultural institutions.

Source: World Bank (2008). *The Road Not Traveled: Education Reform in the Middle East and North Africa*. Washington DC: International Bank for Reconstruction and Development, p. 140.

education has absorbed nearly 20% of the government expenditure and MENA governments typically spend more per student at all levels of the education system, and particularly at the tertiary level. Average spending per pupil at the tertiary level was US\$4222 for the region as a whole, compared with US\$2172 for countries in Latin America and US\$2606 in East Asia in 2002 (see Table 3). In general, a relatively larger allocation of spending toward higher education tends to worsen the income distribution whereas more resources allocated to primary education tend to have the opposite effect. Even conflict-ridden countries such as the West Bank and Gaza have maintained high levels of education spending – from 1995 to 2003, for example, education as a share of GDP was nearly 10%.

Education has traditionally been a priority investment for governments and households. In the 1960s and 1970s, the majority of

Table 3 Public Expenditure Per Student by Level of Education (2002)

	Primary Spending Per Pupil (PPP constant 2000 US\$)	Secondary Spending Per Pupil (PPP constant 2000 US\$)	Tertiary Spending Per Pupil (PPP constant 2000 US\$)
Algeria	628	952	–
Bahrain	2620	2931	–
Iran	738	770	2135
Jordan	596	705	–
Kuwait	2709	3336	–
Morocco	714	1831	3442
Oman	1766	2765	7248
Saudi Arabia	3817	3749	–
Syria	477	883	–
Tunisia	1000	1530	4065
Indonesia	89	173	480
Rep. Korea	2882	4173	885
Malaysia	1778	2500	9036
Philippines	446	368	582
Thailand	1027	728	2048

Source: World Bank (2008), p. 12.

this spending was devoted to capital expenditure through rapid expansion of school construction, although this has shifted toward a greater emphasis on teacher salaries, training and curriculum development. Education has also been a priority expenditure item at the household level. In Tunisia, for example, where private education is limited, household expenditure on education has increased as a proportion of GDP from 0.5% in the 1980s to 1.4% today (World Bank, 2008d). Similar trends are observable in Egypt where private tutoring is a prevalent feature of the education system across both rich and poor households.

Jordan and Kuwait tend to rank above other MENA countries in terms of the performance of the education system.² However, even within this group, there are differences in key areas. In Jordan and Kuwait, for example, more than 90% of the teaching force is equipped with qualifications necessary to teach high school, in Lebanon this is not the case. In the mid range are countries such as Egypt, Tunisia, Iran, Algeria and the West Bank and Gaza, where the issues range from improving adult literacy (Egypt) to reducing school drop-out rates (Algeria, Syria). For countries such as Yemen and Morocco, on the other hand, the challenges are more significant across the board – improving access and gender equity in basic education and reducing adult illiteracy. With respect to measures of quality, MENA students tend to rate roughly evenly with countries in Latin America and the Caribbean and below East Asia. Based on the results of international testing in math and sciences, (Trends in International Math and Science Study – TIMSS) average math scores are 399 for the region as a whole, compared with 408 for countries in Latin America and the Caribbean, 467 for East Asia and an international average of 489. Within the region, students in Jordan, Iran, and Lebanon scored higher than the average (see Table 4).

In terms of internal efficiency, there is clearly room for improvement. School drop-out rates are relatively high across

² The following discussion is based on a survey of education development and reform programs compiled in World Bank (2008).

Table 4 Average Test Scores of TIMSS and PISA

	Test Taken Year	Average Test Score	GDP/Capita 2003 (PPP constant 2000\$)	Secondary Gross Enrollment 2000
Bahrain	TIMSS 03	401	17,212	96
Egypt	TIMSS 03	406	3731	86
Iran	TIMSS 95/99/03	420	6608	77
Jordan	TIMSS 99/03	426	4081	87
Kuwait	TIMSS 95	392	17049	89
Lebanon	TIMSS 03	433	4793	80
Morocco	TIMSS 99/03	362	3783	40
Saudi Arabia	TIMSS 03	332	12,495	72
Tunisia	TIMSS 99/03, PISA 03	420	6765	77
Mean		399	8502	78
Indonesia	TIMSS 99/03, PISA 2000/03	409	3175	57
Rep. Korea	TIMSS 95/99/03 PISA 2000/03	574	16977	94
Malaysia	TIMSS 99/03	514	8986	70
Philippines	TIMSS 99/03	362	4082	77
Thailand	TIMSS 95/99 PISA 2000/03	478	7175	82
Mean		467	8079	76
International average	TIMSS 95/99/03	489		
Top performers	PISA 95/99/03	617		

Source: World Bank (2008). p. 19.

Note: TIMSS Trends in International Math and Science Study, PISA Program for International Student Assessment.

TIMSS is conducted by the International Association for the Evaluation of Educational Achievement, PISA is conducted by the OECD Organization for Economic Cooperation and Development.

adults and youth and this is a primary concern for improving learning outcomes in primary schooling. In 2000, nearly one-half of adults who had some post-compulsory education dropped out before obtaining a degree. Furthermore, the proportion of

secondary and tertiary drop-outs is expected to grow by 10% through 2030 (World Bank, 2008e).

With regard to equitable access to schooling, MENA countries have made dramatic progress since the 1970s. However, relative to countries in East Asia and Latin America, inequality still remains high, estimated at 0.51 relative to 0.35 in East Asia and the Pacific and 0.37 in Latin America, measured as Gini coefficients of the distribution of education in 2000 (World Bank, 2008f). This trend is also underscored by data from household surveys for six MENA countries which suggests that education expenditure tends to be pro-poor at basic levels and pro-poor at tertiary levels (Iqbal, 2006).

There is no shortage of education reforms currently underway among countries in the MENA region. A recent survey conducted by the World Bank of 14 MENA countries, suggests that there are 34 education reform programs underway working to implement an estimated 900 reform measures, averaging 65 per country (World Bank, 2008g). Reforms typically take a long time to implement, averaging a decade or more in most cases, particularly with regard to curriculum reforms, teacher upgrading and/or the promotion of private schools. In addition, while countries may introduce numerous reform measures, the quality of these reforms matter for improving the acquisition of knowledge. If, for example, evaluation systems of teachers and schools are introduced without performance-based rewards, these evaluation systems are not likely to be effective. Making information about school performance available to the public is not likely to be useful if citizens have few mechanisms to express their concerns. In addition, education outcomes can improve as a result of factors unrelated to education reforms such as greater outward orientation of the economy as a whole.

EDUCATION REFORMS IN MENA COUNTRIES

For many countries in the region, curriculum reforms involve a revision of the social studies curriculum to reflect new political and social realities. In some countries, there have been shifts

underway in instruction of standard Arabic and the number of hours devoted to religious study, declining in some cases from 15–16% of total class time to 9% in the 2000s (World Bank, 2008h). There is also a shift away from more traditional pedagogical practices emphasizing rote memorization to more inquiry-based learning and individualized instruction. In countries such as Tunisia, Jordan, and Lebanon, such trends appear to be linked with better education outcomes.

Recent pedagogical approaches tend to emphasize (i) inquiry-based learning, which enforces skill acquisition; (ii) student-based learning, ensuring more individualized instruction; (iii) multiple-chance learning, allowing students to transfer between programs; and (iv) an emphasis on technology, science, and foreign languages. For MENA countries more generally, education reform measures include promoting pedagogical innovations in the curriculum and textbooks, in-service teacher training and equipping schools with internet connections and computers; many of which tend to be related with better education outcomes. In countries such as Tunisia, for example; a new curriculum focuses on knowledge, skills and attitudes, with specific emphasis on reading, writing and numeracy, as opposed to a topic-based curriculum. This has also included introduction of English in the basic education levels to enhance linguistic capacity.

Improving learning outcomes is also associated with improving the structure and flow of students moving through the education system. In many cases this has required eliminating exit examinations in basic education and increasing transferability between academic fields. However, in many MENA countries, there is still a prevalence of exit examinations in basic education, limited transferability between fields of knowledge and limited choices in post-compulsory education. The primary emphasis has been on expanding access rather than a diversification of choices. Jordan, Kuwait, and Tunisia, on the other hand, abolished exit examinations as did Morocco and Yemen. Transferability remains limited, however, even among relatively better-performing countries. Very few students have the option of pursuing higher education at the

university level after pursuing vocational and technical education. In Jordan and Tunisia, informal vocational training programs have helped to address this issue through a focus on employer-training needs and both countries are developing alternative formal post-secondary education options through two-year technological, business, and other trade-oriented schools.

In the area of teacher training, the lessons to be drawn are less clear. Teacher capacity – in terms of skills in pedagogical methods and competency in a particular subject matter are crucial for the success and failure of education systems. While in Jordan and Kuwait more than 90% of teachers have qualifications necessary for teaching high school, this is not the case in Tunisia and Lebanon. Overall, it is difficult to discern a relationship between teacher capacity and education outcomes for MENA countries. An important factor may be weak incentives for raising teacher capacity and skills in the education system as a whole. In nearly all MENA countries, public school teachers and university professors are treated as civil servants – with salaries linked to seniority and degree accumulation rather than performance or student achievement. Some countries compensate teachers in the form of a higher salary or free housing for working in rural areas. A number of countries have introduced national programs to link teacher pay with job performance, teacher test scores, student test scores, as well as teacher education and experience. Such measures will become increasingly urgent as the region faces an acute shortage of qualified teachers by 2015, particular in Egypt, Saudi Arabia, Iraq and Morocco.

In countries with better-performing education systems, there also tends to be more school autonomy, largely accomplished through a transfer of responsibilities from central authorities to the school level. Program design and implementation, recruitment, supervision and evaluation of teachers and revenue diversification are increasingly conducted at the school and community levels. Alternatively, in countries where the public sector continues to dominate all levels of the education system, there is little autonomy in public schools with regard to issues of day-to-day

operations. The result is that ministries of education engage in a wide range of decisions relating to the development of national education plans and the allocation of resources as well as the appointment, evaluation and reward of school directors. Government officials also tend to decide on salaries and promotions, appointment, evaluation and removal of teachers, as well as design and supervision of exams and in-service training. Thus, there is little individual accountability at the level of public schools.

In most MENA countries, monitoring of education tends to occur in the form of measuring compliance with ministry regulations and directives rather than education performance. Many countries have adopted parent-teacher associations in the hope of improving monitoring of school performance but these are seen as a matter of formality rather than an effective instrument for monitoring school performance.

More generally, improving education quality is also related to mechanisms for evaluating performance of schools and teachers in the economy as a whole. Jordan and Lebanon both participate regularly in international testing through TIMSS and have developed their own national assessments of student-learning outcomes for planning and accountability purposes. The immediate priority for policymakers is to assess the results of international tests in light of national priorities for education and to determine whether adjustment is needed. In Jordan, for example, participation in a 1990 International Assessment of Educational Progress (IAEP II) study showed that only 40% of questions in mathematics and 57% of questions in science were answered correctly (World Bank, 2005b). These results triggered an investigation and subsequent reform of the education system in the mid-1990s in which data from IAEP II was used to establish benchmarks for achievements in mathematics and science vis-à-vis performance in 19 other countries. In addition, the results helped to identify areas of weaknesses and strengths in each subject area and facilitated comparisons in performance for students in schools managed by different education authorities within Jordan, across administrative regions

as well as between urban and rural areas. The IAEP II results were also used to identify certain cognitive processes in learning as well as informing pre-service and in-service teacher training programs, and analyzing family and home characteristics associated with better student achievements in math and sciences. The entire exercise also contributed to the development of national capacity to independently conduct national surveys of education progress including capacity-building of the National Center for Human Resources Development (NCHRD) to administer sample-based national assessments of education achievement on a regular basis.

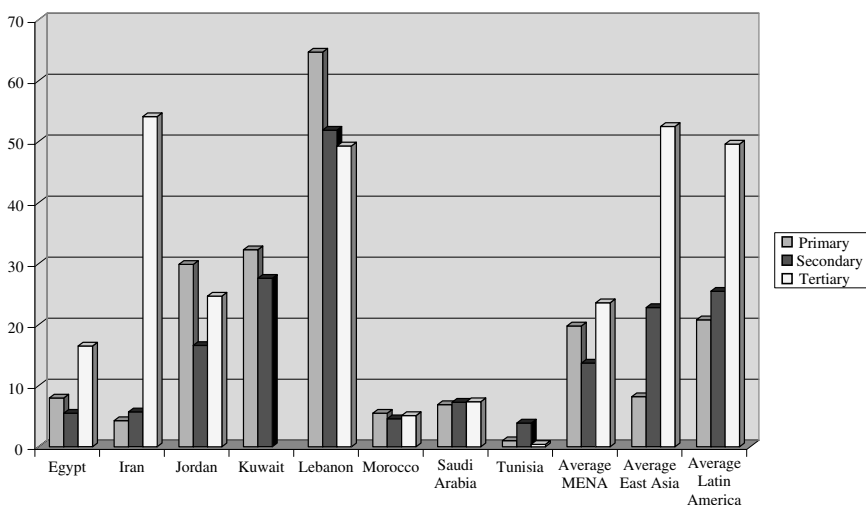
In the mid 2000s, Jordan also launched a comprehensive reform of the education sector through the Vision Forum for the Future of Education and creation of a sector-wide framework for reform. Four elements of this strategy intended to create an education system for a knowledge economy included a greater focus on life-long learning, ensuring better responsiveness between the education sector and the economy, utilizing ICT technologies to support effective learning and ensuring a high-quality learning experience and environment. Given the emphasis on changes in technology and regulation, organizational structures and employment incentives systems, the approach was systemic reform rather than piecemeal solutions. Reforms to basic education included introduction of a new curriculum and learning assessment frameworks, drawing on best practice and incorporating a high level of participation by teachers and supervisors. Other programs included training and professional development for Ministry of Education (MOE) employees including enhanced understanding of the new curricula, in-service training through workshops and summer institutes and on-service training through teams of mentor teachers dedicated to working throughout the school year with teachers, supervisors and principals in schools adopting the new curricula. Reforms also included developing mechanisms for greater coordination between the MOE and the Faculties of Educational Sciences to ensure that new teachers had the necessary knowledge and skills to use the new curricula. Such efforts were complemented at the school level by upgrading facilities,

equipment and resources, including enhanced school ICT connectivity, introducing new learning materials, construction of computer and science laboratories and others. Efforts were also made to build capacity at NCHRD to undertake stronger monitoring and evaluation of program activities on the basis of agreed indicators. Coordination across government entities has also been supported by introduction of an integrated education management information system.

MENA countries are characterized by relatively higher shares of private sector participation in education, particularly at the primary level, relative to other middle-income regions (see Fig. 2). Private enrollment shares at the primary level are twice as high as those in East Asia. At the tertiary level, on the other hand, they are significantly lower at 24%, relative to shares of private enrollment in East Asia and Latin America at 50%. With regard to private schooling, there are also wide differences across countries in the region. In Algeria, for example, private education has traditionally been banned, while most of the smaller GCC countries such as Kuwait together with Jordan and Lebanon, have generally maintained higher levels of private involvement across the board.

As noted earlier, households are increasingly contributing to the cost of publicly-provided education through the payment of fees. In theory, such factors can help to mobilize revenues as well as create pressure for accountability and results across both public and private suppliers. Other countries are exploring the use of community partnerships, matching funds for school construction or in-kind contributions such as publicly-provided land and materials to establish needed schools. These measures have been particularly important for raising primary enrollment in rural areas. In other cases, governments have delegated provision of certain education services such as adult informal education or preschool services to non-governmental organizations in return for providing training, learning materials, and stipends for instructors or through block grants.

In many countries, private provision of education is subject to regulations to promote equitable access and to maintain



	Primary	Secondary	Tertiary
Egypt	8	5.5	16.5
Iran	4.3	5.7	54.1
Jordan	29.9	16.6	24.7
Kuwait	32.3	27.6	—
Lebanon	64.7	51.9	49.3
Morocco	5.5	4.6	5.1
Saudi Arabia	6.9	7.3	7.4
Tunisia	1.0	3.9	0.4
Average MENA	19.8	13.7	23.6
Average East Asia	8.2	22.8	52.5
Average Latin America	20.8	25.5	49.6

Source: World Bank (2008), p. 27.

Fig. 2 Private Enrollment Shares (2003)
(Percentage of Total Enrollment)

certain minimum standards regarding the curriculum and school infrastructure. Private schools in general, tend to have higher operational autonomy subject to the guidance of a board of trustees which sets the rules of the game, appoints, evaluates and rewards top management and allocates resources according to

expansion plans, leaving operating decisions to school and university directors. Public regulations covering private education tend to focus on curriculum, owners' qualifications, fees, graduation certification, teachers' qualifications, registration of the school and reporting of basic information. In Lebanon, for example, all regulations are technical in nature covering the curriculum and others, whereas in Egypt and Iran equity considerations play a larger role. Given the region's growing demand for secondary and post-secondary schooling well into the 2000s, exclusive dependence on public resources is not likely to be feasible for most countries. In Tunisia, Lebanon, Algeria, and Kuwait, primary school cohorts have already peaked; but for most other countries in the region such as Libya, Morocco, Saudi Arabia and Syria, this will occur after 2020 and for the smaller Gulf states, primary education cohorts will continue to grow until 2050 (World Bank, 2008i).

In many MENA countries, introduction of an accreditation system, particularly for private universities, would help to close information asymmetries between consumers and providers and increase information about learning outcomes. In Chile, for example, introduction of a quality assurance system through accreditation for private universities has successfully established a quality stamp through external institutional and programmatic evaluation. This has created a culture of self evaluation in which institutions continuously benchmark teacher qualification, curricula and learning facilities with competitors. Accreditation is voluntary but more than 35 universities and 106 programs have enrolled in the program. In Brazil, on the other hand, standard nation-wide exams measure the performance of graduates over a wide range of disciplines, providing better information to potential students about the quality of individual degree programs (De Ferranti *et al.*, 2003).

In summary, improving access and quality of education in MENA can be achieved through a combination of policies to promote more focus on individualized learning, along with better monitoring of learning outcomes in light of international

achievement standards and through intermittent national assessments and the regular monitoring of quality standards and key indicators. This can facilitate a greater reliance on performance incentives and engagement by stakeholders. Greater participation by the private sector in education services provision can also help. Along with appropriate measures to promote equity, such as the greater use of scholarships and the use of national accreditation systems, education access and quality can be widened while developing ways to build bottom-up commitment to reform programs.

Education outcomes also need to be relevant for the needs of the economy and society at large. Skills critical for improving competitiveness, innovation and growth prospects are in demand in every MENA country. However, much depends on complementary policies related to the functioning of labor markets, as well as the degree of competition in product markets and openness to the world economy. With regard to the latter, the experience of other developing regions suggests that the impact of education on growth and technological development is strongly related to a country's degree of openness. In more open economies with a literacy rate of 70% or higher, the externalities related to human capital can generate an additional 1.75% of growth annually (Gould and Ruffin, 1995; Benhabib and Spiegel, 1994).

A primary catalyst for improving skills accumulation is through the labor market. In this regard, the legacy of public employment guarantees and large numbers of civil servants create particular challenges. To encourage greater mobility of workers into the private sector, a large number of countries are increasingly relying on employer-training programs through training rebate schemes and tax incentives. In Morocco, for example, levy exemption schemes have been introduced at times to subsidize smaller firms to provide training, along with support to adult training providers; in Jordan levy rebate schemes have tended to be more prevalent. Experience with these programs suggests that results tend to be better when employers remain in charge and

industries own the levy in some cases, with supervision of levies across industrial bodies. Other success factors include the need to increase competition in provision of training. Matching grant schemes which support strengthening and diversification of the supply of training and stimulate demand have also demonstrated results. The most successful schemes tend to be demand-driven, with private sector implementation and measures to facilitate creation of sustained markets for service provision. Programs to encourage skill acquisition at the firm level also need to be complemented with higher education programs which focus on providing very high quality training at community colleges and universities. The community college system can direct resources toward development of well-trained mid-level technical workers in areas such as medical technologies, electronic repayment and accounting. Where possible, universities can consolidate programs and develop mechanisms for sharing of laboratories, libraries, and other specialized training resources.

In addition to improving competitiveness, education systems are important for strengthening social equality as well as national identity. In a larger sense, education is an important instrument of social policy overall and the nature of education systems imply choices about where society is going or not going. Raising educational quality and outcomes in MENA countries can improve equality of opportunity in the region, as well as across social, economic and ethnic groups. It is also integral to achieving sustainable welfare gains through promotion of a level playing field across society as a whole. Ensuring access to a high-quality education is a more sustainable and efficient form of social policy than broad-based subsidies on food, petroleum and other basic goods and services. A society with greater equality of opportunity will also have greater opportunities for innovation and investment. In countries such as Finland, for example, where education quality is among the best in the world, a key underlying objective of policymakers has been to use a combination of policy instruments to provide all citizens with equal opportunities to receive

a high quality education, regardless of age, economic situation, geographical location, gender, ethnicity or religion. In many societies, higher educational achievement also enjoys great public respect and appreciation with the potential to create social distinction and elite status regardless of income level, religious, political or ethnic orientation.

CONCLUSION

MENA countries have made dramatic gains in human capital development and governments in the region have played an important role in delivering substantial increases in welfare. There are few countries in the world which have demonstrated such rapid rates of advance in human development. In Oman, for example, a comprehensive program for human development has achieved some of the most rapid advances ever recorded (Al Hamad, 2006). Social sectors in particular, have tended to embody norms and public commitments to equity and universality of access. In practice, however there are gaps in education access and quality across groups and people. The challenge going forward is to improve the quality and relevance of educational curricula and motivating teachers and school administrators to achieve high performance. This will require reforms to ensure rising efficiency within the education system as well as more responsive linkages between education systems, the economy and society at large. The results are likely to be higher rates of return to schooling and greater participation by the region's rapidly growing young population in emerging global trends which link productivity growth increasingly to improvements in human capital and skills accumulation. How to best upgrade the skill level of a population means different things for different countries. It requires that governments develop policies which focus on developing a flexible network of learning opportunities provided by public and private entities with strong accountability for results. Complementary policies related to social safety nets, trade reform and improving the competitiveness of the microeconomy are also vital.

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Are MENA's Labor Markets the Key to Growth?

From 2000 to 2010, MENA countries will need to generate an estimated 40 million additional jobs, with the bulge of labor force growth occurring between 2005 and 2010. Over the next few years, there will be an estimated 4 million people per year entering the region's labor markets (World Bank, 2007a). Yet, the MENA region already has some of the highest unemployment rates in the developing world. And MENA's unemployed are predominantly young, relatively educated but not skilled workers, primarily located in urban areas. Unemployment rates among women are nearly twice as high as those for men.

This poses a significant challenge for policymakers. This chapter explores the underlying factors contributing to this situation and asks the following: how can labor markets adjust to accommodate growing numbers of workers? What policies can help in this regard?

LABOR MARKETS AND GROWTH

Policymakers tend to focus on weak growth as the underlying cause for high unemployment. When the economy is growing slowly, unemployment rises. But weak growth is not necessarily the cause of rising unemployment and the return of growth is not always accompanied by falling unemployment. Growth and unemployment are to some extent jointly determined by the process of job creation and destruction. Hence, it is the way in

which countries manage the process of job creation and job destruction which helps to explain the persistence of unemployment (Cahuc and Zylberbert, 2006a). Countries with more flexible labor markets tend to create more jobs because of the way in which firms meet rising demand (by developing new products or becoming more competitive internationally) through hiring as well as through additional capital investment. A recent survey of job flows¹ in industrial, developing and emerging economies tends to underscore these findings (Haltiwinger, 2007a). Job flows in a handful of OECD, Latin American, and Asian countries, for example, appear to be large; with firm entry and exit generating significant influences on these flows. Industry and firm size effects together account for more than half of the variation in job flows across countries, industries and size classes. However, there is considerable variation in job flows which remains unaccounted for — suggesting that differences across countries in the nature of labor market structures and institutions matter a great deal. Studies of transition economies, in particular, suggest that the shift from higher levels of planning and government control to greater market orientation affects the process of job creation and destruction. As firms begin to adapt to the functioning of a market economy, the number of job reallocations rises and this process of reallocation tends to coincide with higher productivity growth (Cahuc and Zylberbert, 2006a).

While higher overall flexibility is desirable, workers who are displaced from jobs can and do suffer real adverse consequences. It is this job uncertainty and its potential social and political consequences which can influence labor market protection and policy choices relating to government hiring guarantees, social security benefits and/or unemployment insurance, public support for job-seekers, together with systems for providing training. The degree of protectionism in these regulations and institutions seems to explain persistent gaps in the rate of unemployment and growth

¹ Job flows are constructed from a measure of net employment growth for a particular sector.

across countries. Thus, a challenge for policymakers is finding the right institutional design to permit more flexibility in job flows while providing a safety net for workers.

UNEMPLOYMENT IN MENA COUNTRIES

For the region as a whole, average unemployment rates were approximately 14% from 2000 to 2005, declining to approximately 11% in 2005. Across the region, unemployment incidence varies widely, from less than 5% in GCC countries such as Bahrain, Qatar, Kuwait and the UAE to nearly 30% in Iraq and the West Bank and Gaza. Countries experiencing significant declines in unemployment over the last five years include Algeria, Egypt, Saudi Arabia, Morocco, Iran, and Tunisia to a lesser extent. In other countries such as Jordan, unemployment rates have barely moved over the 2000–2005 period (World Bank, 2007b).

One way to characterize MENA's unemployed are those who essentially would have found employment in the public sector in previous years and continue to have expectations of acquiring such a job in the future (Radwan, 2002). In this regard, most of the region's unemployment is concentrated among first-time job seekers. Youth unemployment rates tend to be nearly double the rates of total unemployment and youth aged 15–24 represent more than 40% of the unemployed in Tunisia, Egypt, Jordan, Algeria, Iran and others (World Bank, 2007c). The unemployment problem in MENA is clearly linked with weak labor market insertion for youth.

MENA's unemployed are relatively educated, with the majority holding secondary education certificates or higher. This tends to vary somewhat across the region. In Algeria, Jordan and Tunisia, more than half of the unemployed have a primary education certificate; in Egypt more than two-thirds have a secondary certificate, while in Jordan, the majority of the unemployed have tended to be university graduates (World Bank, 2004a).

Unemployment also tends to be higher for women, with rates estimated at levels twice those for men in some cases, particularly in Jordan and Iran (see Table 1). In Egypt, they are four times

Table 1 Unemployment Rates by Education and Gender: Select MENA Countries, 2006.

	Females	Males	Total
<i>Jordan</i>			
Less than secondary	19.2	14.2	14.2
Secondary and intermediary	22.9	9.5	12.1
Higher education	29.5	12.0	17.7
<i>Egypt</i>			
Less than secondary	1.1	1.5	1.4
Secondary and intermediary	33.8	6.5	13.5
Higher education	24.6	8.5	13.7
<i>Algeria</i>			
No education	2.9	7.8	6.6
Primary	9.5	16.5	15.7
Secondary and intermediary	22.8	18.4	19.3
Higher education	27.5	14.5	19.3
<i>Iran</i>			
Less than secondary	2.7	6.1	5.7
Secondary and intermediary	31.9	14.3	16.4
Higher education	31.3	10.5	17.1

Source: Nabli, M, C Silva-Jauregui and S Johansson da Silva (2007). Job Creation in a High Growth Environment: The MENA Region. *Middle East and North Africa Working Paper Series* No. 49, p. 20.

higher. This is due, in part, to growing labor force participation rates among women which are also driving increases in labor force participation overall. Women with higher education levels have at least twice and up to three times the unemployment rates of male counterparts and these differences are increasing over time (World Bank, 2007d).

Job Growth

Labor demand grew rapidly for most countries in the MENA region during the 1960s and 1970s and subsequently languished

for much of the following two decades. During the 1990s, rates of job creation were estimated at approximately 2% per year, relative to labor force growth rates of 34% per year, along with higher unemployment and lower growth. More recently however, employment growth has accelerated, at 4.5% from 2000 to 2005, with a number of MENA countries generating nearly 3 million jobs per year. This was 50% higher than countries in Latin American and the Caribbean and more than twice as high as the developing country average (World Bank, 2007e). In the GCC states, for example, employment growth was estimated at 9%, although many of these new jobs have been taken by expatriate workers.

A large portion of these new jobs have been created in lower productivity service sectors, particularly in Egypt and a large percentage were likely informal sector jobs, particularly in the tertiary sector. In countries such as Iran, many were concentrated in the agricultural sector. Labor productivity growth remains low, estimated at slightly higher at 1% per year over the 2000s, and higher in Morocco, Tunisia, Kuwait, and Jordan. In many countries such as Egypt, average labor productivity is also highly variable, across sectors and firms. Overall, labor productivity growth is negatively correlated with employment growth; although some countries are generating jobs in sectors where productivity is increasing (World Bank, 2007f).

Labor Supply Growth

Relative to other developing regions, MENA countries have very high rates of labor force growth. In 2005, for example, the labor force accounted for more than half of the working age population and grew at nearly 4% per year for the period 2000–2005 – higher than other developing regions. This was largely due to high working age population growth and rising participation rates for some groups. Population growth in the region was historically high, relative to other middle-income countries and the demographic transition has been considerably slower. Labor force growth is expected to thus outpace population growth at 3% through 2010.

In the MENA region, labor force participation has been accelerating in recent years to 56% in 2005. Female participation rates in particular have increased significantly over the 2000s, particularly in Iran, Algeria, Tunisia, and Lebanon. In Morocco and Egypt, on the other hand, they have stagnated over the last five years and regional averages are well below participation rates in other middle-income economies.

A distinctive feature of female labor force participation has been the very high rate of employment by women in the public sector. Public sector employment absorbed more than 85% of the female labor force in Algeria during the 1990s, followed by more than 50% in Egypt and Jordan (World Bank, 2004e). In contrast, a small percentage of the female labor force finds employment in the private sector. In addition, the average gap in wages has been smaller in the public sector than in the private sector, particularly for women in Egypt (World Bank, 2007f).

Wages

During most of the 1970s real wages for most countries in the region rose rapidly, linked with rising oil prices and remittance flows (see Table 2). Following the oil price collapse in the mid 1980s however, real wages declined on average by 5% per year and even more in oil exporting countries. In the 1990s real wages stabilized but generally demonstrated very little growth (World Bank, 2004a).

Relative to other developing regions, levels of manufacturing wages in MENA countries were between four to over ten times higher than the prevailing wages in Indonesia in the 1970s, and the gap remained considerable, even when taking into account relative consumption price indices. However, after the 1980s, this gap began to narrow significantly as real wages declined rapidly; productivity growth had also begun to lag behind wages by the mid 1980s.

Table 2 Manufacturing Wages in the MENA Region 1963–1991

	Current Dollars at Market Exchange Rates			Current Dollars at World Consumption Prices Indonesia = 100		
	1963–1965	1978–1980	1989–1991	1963–1965	1978–1980	1989–1991
Algeria	2173	5770	5521	742	495	250
Egypt	611	1400	1906	219	245	174
Iran	671	7734	4064	383	781	224
Iraq	896	3025	8969	734	663	232
Jordan	762	3611	3262	273	348	188
Libya	2190	7506	—	—	—	—
Morocco	1420	4010	3074	705	489	269
Syria	570	1688	4219	166	305	596
Tunisia	1052	3164	3003	364	382	255
Indonesia	139	668	758	100	100	100
Korea	260	2646	9529	153	274	471
Malaysia	678	1828	3000	350	240	248

Source: Karshenas, M (2002). Economic Liberalization, Competitiveness and Women's Employment in the Middle East and North Africa. In: *Labor and Human Capital in the Middle East and North Africa*, Salehi-Isfahani, D (ed.), Ithaca: Ithaca Press, p. 168.

Some Characteristics of Labor Markets in Developing Countries

Ideally, labor markets allocate workers between sectors and match worker skills to job requirements so that relative wages and employment matter both for economic sectors and for skill categories. Labor markets also provide incentives for the intertemporal allocation of resources, specifically for human capital accumulation in education and firm-specific training. Not only do these markets work to match the supply and demand for labor across the economy, but they also perform these functions within individual submarkets (Fields, 2007a).

The reality in most developing countries, including those in the MENA region, however, is quite different. Labor markets typically exhibit characteristics of segmentation and lack of adjustment. Labor market segmentation occurs when two basic conditions hold. First, labor markets consist of various segments with qualitatively distinct types of employment and second, when access to the good job segments is limited in the sense that not all of those who want to work in these segments are able to be employed there. The main implication of labor market segmentation is that access to jobs in the better sector is limited, in the sense that not enough jobs are available for all who are capable and would like to work in these sectors. A key issue in this regard is understanding how wages and employment are determined within each segment and what mechanisms connect or disconnect these segments (Fields, 2007a). Jobs can be rationed among job-seekers either in a random way as in the Harris Todaro model or in some systematic way using characteristics such as gender, ethnicity, etc. in a way which includes some individuals and excludes others. The main observation from these models is that for workers of any given skill type there are better jobs and worse jobs and the number of good jobs is limited.

An important priority for policymakers in the region remains good job creation. Given the large increases in annual labor force growth and rising participation rates by women, there is rising pressure on the economy to generate more and productive jobs. Such factors are compounded in many cases by labor market segmentation. This has led to a situation in which workers achieve higher gains by virtue of being located in certain segments. In spite of excess labor supply, benefits and wages in these segments do not adjust easily, typically forcing adjustment onto other segments of the market and particular groups of workers.

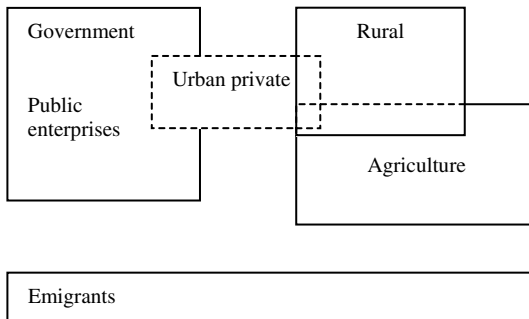
LABOR MARKETS IN THE MENA REGION

Much has been written about the functioning of the region's labor markets, in terms of wage determination and differentials between

urban and rural, public-private, nationals and non-nationals. An important point to make is that segmented labor markets do not imply specialization of occupational skills (Fields, 2007a).

Labor markets in MENA countries have typically been conceptualized as a number of sub-markets with regard to employment and wage setting behavior. In the case of Egypt, at least 5 sub-markets have been identified with some degree of overlap (Figure 1). Across these sectors, wage flexibility is generally increasing from the public sector to rural, non-farm and agricultural sectors. More generally, labor markets can be divided along the lines of public and private, formal and private informal. Public intervention in urban labor markets tends to be significant and there is considerable influence on wage determination. This intervention typically occurs in the form of wage-setting through minimum wage laws, legislation affecting workers' security of tenure and non-wage benefits. It is also related to the sheer size of the government sector in urban labor markets which has implications for wage determination and employment in the economy at large.

In the 1960s and 1970s, for example, public employment was linked with expanding levels of government activity including



Source: Based on Hansen B and S Radwan (1982). *Employment Opportunities and Equity in a Changing Economy: Egypt in the 1980s. A Labour Market Approach*. Geneva: International Labour Organization, p. 144.

Note: The rural sector in Egypt generally includes small and cottage industries and hand-crafts, traders and services.

Fig. 1 Intersection of Sub-Markets in the Egyptian Labor Market in the 1980s

the growth of state-owned enterprises and rapidly expanding levels of subsidized services such as education and health. Rising public labor demand subsequently created signals for patterns of skill accumulation in the education system and government employment quickly became the sector of first and last resort for young graduates, particularly in Egypt. From 1960 to the early 1990s, the Government of Egypt was generally committed to a policy of employing all university graduates and intermediate school diploma holders in the public sector. In Morocco, Jordan and Algeria, public employment was also intended as a bridge to private employment. Wage setting behavior in the public sector has generally reflected a rigid wage scale system linked to education levels and seniority, with private sector wages determined to a larger extent by market forces. Public wage-setting behavior has also contributed to less flexibility (downward) of money wages in the urban private sector, in part through a reservation wage effect. In addition, less differentiation in public pay scales across specializations has, in the case of Egypt, contributed to distorted wage differentials and relative wage declines for higher skilled workers, creating simultaneous redundancy and shortages of certain workers (Hansen and Radwan, 1982). Overall public sector employment has represented nearly 80% of total employment in Oman, Kuwait, Bahrain and Saudi Arabia, nearly 40% in Jordan, Egypt and more than 20% in Tunisia and Algeria in the late 1990s and early 2000s (World Bank, 2004b).

In the GCC countries, public employment has become an important instrument for, among others, distributing oil revenues, largely to nationals. With relatively small populations, the economies of the GCC have also relied heavily on expatriate labor, ranging from 50% of the labor force in Saudi Arabia to nearly 90% in the UAE (Fasano and Goyal, 2004a). Overall, more than 85% of employees in the non-oil private sector are expatriate workers. This has created a dual labor market – one with a high degree of flexibility and adjustment alongside an inflexible and rapidly growing public sector; wage bills for most GCC economies are over 10% of GDP (Fasano and Goyal, 2004b). Expatriate workers tend to

be hired on limited duration work assignments linked with a sponsorship system. This facilitates hiring and firing by the sponsoring company on the basis of a work contract and wages tend to be flexible. During the latter half of the 1990s, for example, average nominal wages in local currency in the private sector declined by almost 8% from 1997 to 2001, particularly in trade activities. At the same time, government wages increased by 11% over the same period, in line with domestic inflation. Given that expected earnings in the GCC states are higher than in home countries, large numbers of expatriate workers are available in a fairly elastic supply of labor. Private firms also prefer to hire non-nationals because their cost (wage plus non-wage benefits) is relatively lower and the workers are not subject to labor market regulations governing hiring and firing of nationals.

Alongside this non-oil private sector is a large public employment sector based on implicit guarantees of employment for nationals. More than 60% of the national labor force is employed in the GCC public sector (excluding Saudi Arabia and Bahrain) including the majority of female workers entering the labor market over the past ten years. Relatively high wages, job security, social allowances and generous retirement benefits create significant incentives among nationals to seek out public employment. Promotion tends to be based on seniority rather than performance and shorter working hours have allowed civil servants to engage in multiple jobbing. In most GCC countries, the retirement age is 60 for men and 55 for women but workers can retire with full benefits after 20 years of service. In most of these countries, employee contributions to the pension fund are relatively low (5%); expatriate workers are not covered by retirement benefits although they are typically compensated with a month's salary for every year of service (Fasano and Goyal, 2004c). This has created a significant gap between private and public wages and benefit structures and high levels of reservation wages for nationals. In the public sector, remuneration packages for Omani unskilled and semi-skilled workers, for example, are twice that of the private sector (Al-Lamki, 2002). Thus, private employers are hesitant to hire and

train national workers because of high reservation wages, firing restrictions and the possibility that national workers may leave the company that has incurred their training cost. At the same time, the restrictions of the sponsorship system tend to prevent expatriates from changing jobs easily.

Since the mid-1990s, employment creation across the GCC has varied across public and private sectors. In Bahrain, Oman and the UAE, for example, the majority of new jobs are being created in the private sector. In Kuwait and Saudi Arabia, on the other hand, between one-half and three-fourths of new jobs have come from the public sector despite policies to enhance employment of nationals in the private sector (Fasano and Goyal, 2004d). In general, most of the new jobs being created in the private non-oil sectors remain unattractive to first-time job-seekers. New jobs have primarily been in low-skill and low-wage sectors of the private non-oil economy, largely in trade, manufacturing and services. Despite this growth in jobs, however, unemployment among first-time job seekers, particularly those with a primary or secondary education is increasing. With most new jobs requiring relatively low levels of education and paying relatively low wages, the private sector tends to offer these jobs primarily to foreign workers.

Labor as a Quasi-Fixed Factor of Production

For the region as a whole, the degree of employee protection for workers in good and bad jobs, including in the private formal sector is linked with *inter alia* labor market regulations and informal hiring practices. Restrictions on hiring and firing as well as minimum wage legislation are generally widespread; in Egypt and Tunisia, for example, compliance with minimum wages is mostly limited to the public sector. Restrictions on layoffs in the formal sector and generous severance payments make firing redundant workers difficult (Agenor *et al.*, 2007a). In Morocco, individual layoffs for economic reasons (i.e. downsizing) have been subject to approval by regional authorities and workers dismissed for disciplinary reasons are allowed to lodge appeals before the court

(Agenor and El-Aynaoui, 2003a). Collective wage bargaining and labor unions are prevalent in Algeria, Egypt, Morocco and Tunisia; at the national level union membership tends to be primarily in the public sector. Trade unions play an active role in lobbying for increases in the minimum wage and enforcing collective conventions in specific sectors (i.e. banking and transport). In 2001, for example, trade unions in Morocco negotiated a 10% increase in the minimum wage and significant increases in public wages despite fiscal budget constraints. (Agenor and El-Aynaoui, 2003b). In addition, non-wage labor costs, including social security contributions for workers in the formal sector are significant – in Algeria, for example, such contributions have represented more than 30% of labor costs (Agenor *et al.*, 2007b).

All of these factors serve to create added layers of protection for workers in the formal sector. The result, in many cases, is that while such measures can reduce the extent of labor-shedding during downturns, they also tend to make labor a quasi-fixed factor of production. This means that firm decisions about hiring can be more sensitive to long run factors relative to short run fluctuations in market conditions. The “fixity” of labor in this case is linked to hiring and firing costs, but also training expenses and the costs of uncertainty in assessing the cost of a regular worker. Another way of interpreting the degree of “fixity” is in terms of rent – or the wedge between the wage rate and the marginal value product.

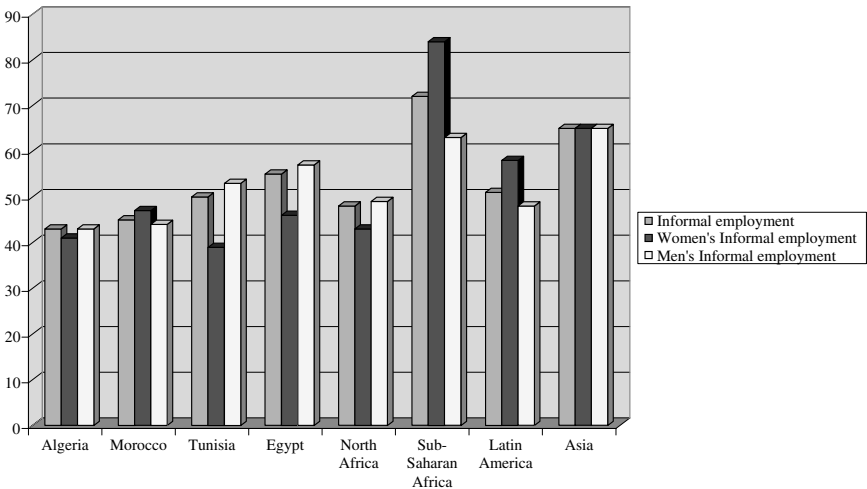
As a result of these factors, in Morocco, and in many MENA countries, employers are generally reluctant to hire new workers and in some cases, rely mainly on personal relationships to do so. Through personal contacts, employers can minimize the risk related to hiring by gathering more information on the worker (Agenor and El-Aynaoui, 2003c). In other cases, there has been increased use of temporary contracts – introducing more flexibility in the use of labor and reducing labor costs while giving firms the opportunity to screen potential workers as temporaries before they are granted regular status. Workers will generally accept temporary status willingly if the expected lifetime earnings from a regular formal sector job greatly exceed alternative earnings

elsewhere in the economy. However, the very nature of these contracts also prevents significant gains in productivity in some cases because they dissuade firms from investing in training for workers.

The private informal labor market in MENA countries is large and growing. For the most part, these are “bad” jobs with low levels of wages and little formal protection (Radwan, 2007a). Estimates of informal employment in developing countries overall are about half of non-agricultural employment; among North African countries in the MENA region, it is roughly comparable in size. Egypt has the highest level of informal employment at 55% of non-agricultural employment relative to about 43% in Algeria and Syria. Women’s informal employment appears to be lower than in other developing regions (see Fig. 2).

The majority of this is self-employment and largely concentrated in trade (40%), industry (33%) and services (28%). In Egypt, the informal sector is also absorbing larger numbers of new labor market entrants, linked with downsizing of public employment prospects. Shares of first-time job seekers in the informal sector have increased from less than 20% in the 1970s to 60% in the 1990s (World Bank, 2004c). These workers do not seem to be able to transition to formal sector jobs – some 95% of non-agricultural workers without contracts or social insurance in 1990 were in a similar position by the end of the decade (Wahba and Mokhtar, 2002). Informal enterprises tend to have low capital intensity, estimated to be less than one-tenth that for medium and large scale firms, contributing to low labor productivity and earnings (Handoussa and Potter, 1992). The majority are operated as family businesses with little or no access to formal credit, limiting growth capacity. Work weeks of 50 hours or more are not uncommon and there tend to be minimal sanitary and safety regulations along with the frequent use of child labor.

Rural labor markets tend to be largely private and have traditionally demonstrated considerably higher levels of flexibility. A significant portion of the urban labor force in many developing countries (about 10%) is engaged in rural non-farm or agricultural activities in some form or another. The role of agriculture as a



	Informal Employment (% of non-agricultural employment)	Women's Informal Employment (% of women's non-agricultural employment)	Men's Informal Employment (% of men's non-agricultural employment)
Algeria	43	41	43
Morocco	45	47	44
Tunisia	50	39	53
Egypt	55	46	57
North Africa	48	43	49
Sub-Saharan Africa	72	84	63
Latin America	51	58	48
Asia	65	65	65

Source: Radwan, S (2007). Good Jobs, Bad Jobs and Economic Performance in Paci, P and P Serneels (eds.), *Employment and Shared Growth: Rethinking the Role of Labor Mobility*, Washington DC: International Bank for Reconstruction and Development, p. 41.

Note: Data are for 2002.

Fig. 2 Informal Employment (as % non-agricultural employment)

“buffer” employment sector continues to predominate in many MENA countries and is the source of significant new job growth in recent years. In many countries, non-farm activities account for substantial employment and income-earning opportunities in rural areas

for countries such as Egypt (Adams, 1991). In MENA countries, rural workers were also the main source of emigration during the 1970s.

DO MENA LABOR MARKETS ADJUST?

Yes, but adjustment tends to occur unevenly across labor market segments given the degree of “fixity” of some labor inputs. In the construction sector in Egypt, for example, survey evidence suggests that informal workers at different skill levels and trades are typically exposed to different rates of job turnover relative to workers in the formal sector (Assaad and Tunali, 2002a). More specifically, average unskilled workers in the informal sector were unemployed 20%–74% of the time relative to their counterparts in the formal sector during the 1980s and 1990s. While some measures of higher job instability were offset through higher wages, informal workers were generally much less protected from long-term cyclical downturns in labor demand in the mid-1980s. This downturn was severe and lasted for nearly ten years, from the mid-1980s to the mid-1990s during which time there was also a sharp increase in poverty, particularly in urban areas.

A survey of the Egyptian construction sector in the late 1980s, highlights underlying differences in institutional protection and wage setting across formal and informal segments of the labor market.² Distinctions between formal and informal workers in the Egyptian construction industry, are generally based on contractual relationships and compensation arrangements between workers and employers; workers with formal contracts are legally protected from employment instability. Formal workers cannot be laid off as long as their contract is in force and for a substantial majority (85%), this level of protection is in force in perpetuity. Workers covered by formal contracts also get social insurance, paid vacation and

² Data is based on the Construction Workers Survey carried out in Egypt in March/April 1988 involving more than 400 blue collar construction workers who appeared in the 12,000 household survey sample of the Egyptian Labor Force Sample Survey (Assaad and Tunali, 2002a).

sick leave. Informal workers tend to change jobs and employers frequently and are often unemployed between jobs. Furthermore, opportunities and influences that formal and informal workers have outside the construction sector tend to influence the outcome of the bargaining process (Assaad and Tunali, 2002a).

During the late 1980s, formal workers tended to be older, with a general educational certificate and some form of training, relative to informal workers. There was also a strong association between the nature of contractual arrangements and employers. Most private employers did not hire unskilled workers formally and most public sector workers had formal contracts. Furthermore, segmentation began early – with construction workers channeled through two main paths – either gaining access to an apprenticeship or formal training and/or remaining unskilled. The unskilled typically remained so for the duration of their careers in the construction sectors.

Access to traditional apprenticeships has been the dominant way of acquiring craft skills in the Egyptian construction sector and is governed by informal barriers to entry. There is historical evidence for example, that the organization of construction work around craft skills has its roots in the guild system (Assaad and Tunali, 2002a). Entry into apprenticeships thus, has been linked with educational achievement but also importantly, family involvement in the construction sector, characteristics of the community of birth and the community of entry for workers. Given that formal jobs have been rationed by employers, it is decisions by employers rather than workers themselves, which become important in determining access to these jobs. Thus, workers do not necessarily self-select into these apprenticeships and are not necessarily selected relative to others on the basis of productivity-related attributes. Overall, the productive potential of the worker does not appear to have been linked with selection into formal jobs – personal contacts and connections appeared to matter more than skills. In addition, productivity traits did not seem to influence the length of employment or unemployment duration. Unskilled workers who joined the formal sector had a large formal

sector premium relative to randomly selected workers and had a comparative advantage in this segment of the labor market. Skilled workers in the formal sector also enjoyed protective barriers to entry and workers who had undergone traditional apprenticeships tended to earn more than those in formal vocational training.

The degree of fixity across large numbers of workers in the formal sector suggests that much larger price declines were needed to reduce relative demand for protected workers. By the late 1980s, following adverse terms of trade shocks on the order of 11% of GDP, per capita growth in Egypt declined rapidly and real wages fell to 80% of 1982 levels. The large weight of the public sector and regulation in the formal private sector effectively pushed most of the adjustment on wages rather than quantities – and largely on to residual flex-price markets (Assaad and Commander, 1994a). The implication is that factors with lower degrees of fixity-or workers in informal sectors experienced relatively greater shifts in demand as a result of short-run changes in product demand. And the economy as a whole may have required much higher levels of real wage declines in both sectors and unemployment in the unprotected sector during adjustment periods.

Whereas real construction wages in Egypt increased by nearly 5% per year from 1972–82, after 1984, private sector real wages fell by nearly 4% per year between 1982 and 1987 and more than 9% per year after 1986. By 1988, informal workers in the construction sector could be expected to work no more than two-thirds of their available time – and unemployment increased together with layoffs – average unemployment ranged from 15–55 days (Assaad and Commander, 1994b). In the public sector, there was downward pressure on wages together with higher rates of absenteeism and moonlighting-notably among government workers.

In a situation where real wage flexibility coexists alongside segmentation and a high degree of “fixity” of labor, changes in macro policy instruments such as a real devaluation may require, in effect, much higher levels of real wage declines in both sectors

and unemployment in unprotected sectors. This may also help to explain limited adjustment measures adopted by Egypt and MENA countries more generally during the 1980s and weak output effects in tradable sectors (Assaad and Commander, 1994c). The collapse of investment (public and private) during the 1980s was also likely linked with decumulation of capital by firms and lower demand for unskilled labor in the formal sector and underemployment in private and public formal sectors. With less wage flexibility, decumulation of the capital stock in manufacturing was likely worsened by resistance to public sector layoffs. As the capital stock decreases over time, for example, underemployment worsens; real wages and investment continue to fall. Falling real wages are an induced response to the weakening of labor demand brought on by capital decumulation, hence they do not stimulate employment growth or investment spending (Buffie, 1994a). In effect, capital decumulation and greater allocative inefficiency in the labor market may have substantially increased the costs of adjustment.

Going forward, policy reforms in the form of public sector wage cuts and layoffs in final goods sectors can potentially achieve an improvement in external balances without sacrificing output and employment growth – layoffs, in particular, can stimulate investment by returning real resources to the private sector (Buffie, 1994). However, such measures need to be combined with expenditure-switching policies and re-training opportunities. Demand has also likely altered in a way that is less favourable to the absorption of labor, particularly workers with secondary degrees or higher. Recent analysis of severance payments in Egypt, for example, suggests that it is this group which has tended to benefit most from high levels of public employment growth. The highest rent workers are male public enterprise workers with a university level education and female public enterprise workers with intermediate degrees. It is this group which has maintained the largest gap with remuneration in the private sector (Assaad, 2001a).

RAISING MENA'S EMPLOYMENT PROSPECTS

A number of MENA countries have undertaken reform of labor market institutions to help address the unemployment problem. However, policy choices have focused largely on active labor market policies. During the 1990s, for example, spending on active labor market policies such as job search assistance, vocational education and microfinance programs approximately doubled. In general, the international evidence suggests that the overall impact of active labor market policies on job creation and wage improvements tends to be limited, given that they do not address the underlying problem of high levels of employee protection.

Algeria is one of the few countries in the MENA region with a functioning unemployment insurance system in which formal sector workers and employers participate through a mandatory payroll tax. At the same time, employee protection remains high. Severance payments are on average 3 months' salary, and in order to fire workers, there is a need for prior authorization, a notification period and an appeal procedure in which time and money costs may be larger than the severance pay amount. It takes, on average, six months to lay off a worker; when there are collective dismissals, employers must negotiate with unions regarding which workers will be laid off. The employer is not allowed to lay off any worker right after a takeover when a firm is privatized. Furthermore, to allow a laid-off worker to receive unemployment benefits, the employer must pay the unemployment insurance system 80% of the worker's monthly wage for each year of tenure up to 12 (Kpodaar, 2007a).

Changes in labor regulations and institutions also clearly have to be linked with underlying economic factors in the workings of labor markets. They also need to have significance for the growth process and the allocation of labor across growth versus non-growth-enhancing activities (Pissarides, 2004). In this regard, an overriding priority for policymakers must be to continue to shrink the size of government employment. The large size of public employment and protection for formal workers in most MENA countries traps human capital in less productive activities, inflates

the public wage bill and forces most of the labor market adjustment onto private firms and vulnerable groups, including the unskilled and first-time job-seekers. A recent general equilibrium model of labor market reforms in MENA labor-exporting countries, for example, suggests that reducing public sector employment has the twin effects of increasing private capital formation and raising levels of private employment (Agenor *et al.*, 2007c).

In addition, there is a need to modify wage bargaining mechanism to enhance the link between wage and non-wage benefits and underlying productivity growth. In the case of East Asian economies such as Korea, for example, significant gains in real wages after a period of adjustment during the 1980s was associated in part, with a profit-sharing model of wage determination in which the process of wage determination was linked with target real wages based on central productivity increases, among others (Mazumdar, 1994a).

In the GCC states, efforts to trim the size of the government workforce have adopted an “active” labor market approach through a combination of regulations, incentives and re-training of public workers with varying costs and benefits. Mandatory measures include quantitative targets or quotas for the percentage of nationals employed by private companies in specific professions and sectors, along with measures to increase the relative costs of hiring expatriates such as regulating the supply of work permits for foreign workers (see Table 3). Other measures include adoption of fees or a training tax paid by employers to hire foreign workers. Most GCC countries have also provided incentives to private employers to hire nationals through a number of mechanisms. Initiatives to improve the skills of national workers include market-based strategies to improve training and education, in line with private sector requirements. Others are attempting to equalize the perceived attractiveness of public and private employment by extending retirement benefits and social allowances to all nationals, independently of the sector in which they work. In Oman and the UAE, there are also efforts to encourage self-employment of the national labor force through financing and training with

Table 3 Labor Market Policies in the GCC States

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Quotas on expatriates.	Restrictions on the number of approved work visas.	Restrictions on the number of approved work visas.	Ceilings by region set on annual entry of expatriates. Labor permits issued to firms that meet Omanization targets.	Restrictions on the number of approved work visas.	Restrictions on the number of approved work visas.

(Continued)

Table 3 (Continued)

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Quotas on nationals.	Firms requested to increase employment of nationals by 5% per year until one-half of the labor force is Bahraini. New firms with 10 or more workers required to have 20% Bahrainis with further annual increases of 5% until 50% is reached. Firms with less than 10 workers required to employ at least one Bahraini other than the owner.	Private sector industrial firms required to employ at least 25% of labor force as nationals 2000 Labor Market Law stipulates percentages of Kuwaitis required in private firms across sectors; companies missing these targets are subject to fines and sanctions.	Targets set in 1994 for employment of nationals by sector. Firms with more than 4 employees must comply within 2 years or face fines. Firms not meeting Omanization targets required to hire one Omani per new expatriate worker.	Nationals employed in private firms account for at least 75% of workforce; wages at least 51% of total wage bill. Firms with more than 20 employees must raise ratio of Saudi workforce by 5% per year until they reach targets.	No formal targets except on share of nationals employed in public enterprises and banking sector. Banks must increase national workforce by 4% per year to meet targets. Firms seeking work visas for female expatriate employees sponsored by husbands or fathers must employ additional national to get the permit.

(Continued)

Table 3 (Continued)

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Ban on hiring expatriates in certain industries.		Work permits issued for foreign workers confined to select activities in the private sector.	Ban on expatriates performing jobs not requiring special training programs.	Sector-specific restrictions on issuing work permits for foreign workers. Issuance and renewal of work permits stopped in many unskilled professions.	

(Continued)

Table 3 (Continued)

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Fee for use of expatriate labor.	Fee on visa for foreign worker. Companies with more than 100 workers not providing internal training charged for training by Ministry of Labor and Social Affairs equivalent to 1% total annual wages of local labor force and 3% foreign worker wages.	Fees for visas, work permits and residence permits raised. Flat fee on hiring domestic servants.	Since 1994 a fee equal to 7% of the worker's annual salary imposed on use of foreign labor. Fee revenues used as training contributions.	Fees for visas, work permits, and residence permits.	Fees for issuing a work visa and for visa renewal. Annual fee payable by expatriate employers of household help.

(Continued)

Table 3 (Continued)

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Cash benefits and other incentives to employ nationals.	Payments of up to 1000 BD a year to midsize private manufacturing firms in which 30% of the workforce is Bahraini.	Government contracts only provided to domestic firms in which 40% of the labor force are nationals earning at least 40% of the total firm wage bill.	Firms meeting Omanization targets gain priority consideration for concessionary loans, duty exemptions and priority in government procurement.	Firms not complying with Saudization can be subject to refusal of visa request or work permit renewals and can be banned from bids on government contracts, loans or subsidies.	

(Continued)

Table 3 (Continued)

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Enhance private sector benefits.		Extend payment for social allowance for Kuwaiti workers in the private sector. Payment of unemployment benefits for workers during job search.	Initiated extension of pension scheme to private sector.		Benefit pension scheme for nationals in the private sector introduced in 1999.
Civil service retrenchment.			Reduction in number of civil servants to meet targets.		

(Continued)

Table 3 (Continued)

Labor Market Policies	Bahrain	Kuwait	Oman	Saudi Arabia	UAE
Mobility, placement support and information dissemination.	Employment-service bureau created in 1997 to handle job matching and placement support for Bahraini job seekers.		Additional flexibility in dismissal legislation. Expatriate workers allowed with approval by employers to move between sponsors without being forced to leave the country.	Job matching and placement programs in more than 37 regional offices with special focus on private sector vacancies.	In 1997, allowed transfer of sponsorships between employers after one year of service subject to the approval of all parties.
Unemployment benefits.		Manpower and Government Restructuring Program in 2001 provides benefits to Kuwaiti nationals.			

Source: Fasano, U and R Goyal (2004). Emerging Strains In GCC Labor Markets, *IMF Working Paper* WP/04/71, Appendix I.

established private companies. While shares of GCC nationals in private employment increased from approximately 25% and 32% from the 1990s to the 2000s, it is difficult to isolate the effects of these programs from changes in overall economic conditions (Girgis, Hadad-Zerros and Coulibaly, 2003). More analysis is clearly needed in this regard, particularly with respect to social benefits and costs of alternative policy choices.

Targeted measures to accelerate labor market insertion for first-time job seekers are also applied in a number of MENA countries (see Table 4). Overall, the experience regarding such programs is

Table 4 Labor Market Insertion Programs in Algeria, 1999

Program	Description	Target	# Jobs Created (full time job equivalent)	Actual Cost per Job (DA)
ESIL	Subsidies granted to firms as incentives to hire the unemployed	Low-skilled youth	68,300	35,580
AIG	Compensation to workers in community based activities	Poor	na	37,333
TUPHIMO	Labor-intensive activities such as road maintenance	Unskilled unemployed	7,174	82,038
CPE	Salary paid to firms for hiring unemployed workers for one year	Skilled youth	12,191	147,000
ANSEJ	Interest subsidies and subsidies to micro-finance projects	Youth interested in self-employment	39,260	1,123,540

Source: Kpodaar, K (2007). Why has Unemployment in Algeria Been Higher than in MENA and Transition Countries? *IMF Working Paper* No. WP/07/210, p. 7.

mixed. These programs tend to work best for enhancing labor market insertion for small numbers of highly vulnerable groups as opposed to more general increases in labor demand (Cahuc and Zylberbert, 2006a). Globally, studies on more than 30,000 individuals over a period of five years suggest that the chances of finding a new regular job are lower for persons with temporary jobs in the public sector and for those who took training courses outside a firm (Sianesi, 2002). Alternatively, programs for on-the-job training and subsidies to employment in the private sector tend to yield better results. Compared to being unemployed, this measure raises one's chances of finding a new job by 40% from the moment one leaves the program. Temporary job replacements also do relatively well, in part, because the beneficiary holds a job that permanently exists and learns from being in a real work setting, which strengthens her abilities and qualifications in the eyes of future employers (see Box 1). Thus, the ranking of programs on the basis of costs and benefits tends to be (i) subsidies for employment in the private sector; (ii) staying unemployed, temporary job replacement and on-the-job training, and (iii) temporary public sector jobs and training in special facilities. However, the ranking of the programs in terms of cost per capita is typically in reverse with public programs outweighing the others in cost and lower efficiency (Cahuc and Zylberbert, 2006a).

What about vocational training programs? Publicly-financed vocational and technical training programs are ubiquitous in MENA countries. Egypt has some 36,000 students in 120 publicly training centres. Yemen has nearly 5000 students in 15 public training centers focused on industry and commerce (World Bank, 2004). For the most part such institutions provide a second-choice, lower-quality alternative to general education with limited opportunities for life-long learning (World Bank, 2005a). Such programs may also perpetuate poverty and low socio-economic status – in Jordan, for example, a household survey of girls enrolled in secondary vocational education indicated that the majority had parents with vocational secondary or basic education or less. Only 9% of parents had a higher education. In Tunisia, nearly one-third of

Box 1 Factors For Success In Back-To-Work Programs

A key feature of success in reintegrating individuals into job markets is mutual commitment between employment services and the unemployed, in which adequate benefits and steady care and attention are provided in exchange for meeting one's obligations regarding job search. Successful programs in this regard tend to involve intensive, personalized help, combined with credible sanctions. The Swiss system of unemployment insurance for example, is based on high payments, a precise definition of what constitutes a suitable job, the obligation to apply for such jobs, intensive personalized assistance (at least one meeting per month) to assess the efforts made in job search and planning steps for the future. This is backed up by an explicit statement of penalties that will apply in the event of a breach in these commitments. Monthly payments are contingent on the unemployed persons supplying details of suitable jobs for which she/he has applied – where suitability is defined on the basis of criteria such as distance from home, offering a wage equal to at least two-thirds of the last wage received, and others. Potential jobs can be found by the unemployed person herself/himself or proposed to her/him by the public employment service. There is also a minimum number of monthly applications which the job seeker must make and search is monitored by the same staff member at the public employment service over time. The unemployed person is required to meet this staff member at least once a month for an assessment of her/his activity and drafting of a plan for the future. She/he must agree to enter any training program to which she may be assigned. If the job seeker fails to meet these obligations she/he receives a notification requiring her/him to justify this failure within a short period of time. This notification also sets out the penalty to be incurred if the reasons supplied are judged not to be valid. The penalty consists of a suspension of the benefit payment for a period that varies according to the reasons provided. The crucial elements of success in this formula appear to be linked with a combined system of support (including help with job search), checking and penalties.

Source: Cahuc, P and A Zylberbert (2006). *The Natural Survival of Work: Job Creation and Destruction in a Growing Economy*. Cambridge: MIT Press, pp. 77-78.

vocational training students came from families where the household head had not gone beyond the primary education level (World Bank, 2005b). More generally, training is not the miracle cure for raising employment prospects; while the productivity of adult workers with few skills can certainly be improved, doing so is costly and it is generally more efficient to get these persons into work by reducing the cost of their labor. Public expenditure on training has the highest returns for young children from disadvantaged backgrounds enrolled in programs with a focus on extracurricular structures and interaction with the family setting. This is facilitated by narrowly-targeted programs with a long and costly follow-up of beneficiaries.

CONCLUSION

While unemployment is a necessary byproduct for economies undergoing a process of restructuring, innovation and growth, it poses significant challenges for policymakers when existing unemployment rates are high and labor force growth is rising rapidly. In the MENA region, high rates of unemployment among first-time, job seekers and women suggests the effects of high labor force growth and rising participation rates, together with rationing of “good” formal sector jobs and rigidities in labor markets. What is needed in MENA countries, in dealing with this challenge, however, is not more protection for formal sector workers but allowing for more efficient adjustment of labor markets and the movements of larger groups of workers into “good” jobs. In the MENA region, vigorous employment protection has largely turned labor into a quasi-fixed cost of production so that firms tend to adjust by cutting back on job destruction but also job creation. This tends to raise overall costs of adjustment and lowers employment prospects for workers with a weaker position in the labor market i.e. youth, women and unskilled workers. In addition, while employment protection may stabilize the income of certain wage earners it does so at the cost of greater uncertainty for other workers.

Raising employment prospects in the MENA region requires sustained efforts at reducing the level of protection for workers in the formal public sector. Both the nature of wage-setting behavior, the level of non-wage benefits and the size of this sector have adverse consequences for private formal and informal markets. There is also a need for more targeted measures to re-train public employees affected by retrenchment together with a well-functioning system of unemployment insurance and in some cases measures to enhance integration into private employment. Wage bargaining processes for existing formal sector workers, particularly those in the public sector, would likely benefit from greater linkages with underlying productivity measures. Adjustment programs designed to improve competition in domestic markets and enhance linkages with the global economy would also help to boost private employment prospects. In the 2000s, higher liquidity and stronger growth have improved employment prospects considerably and eased the constraints of insider-outsider labor market segmenting factors. The challenge is to channel this dynamism into greater income-generating opportunities and market-based protection for workers. Well functioning labor markets are also critical ingredients for making financial and product markets work better for growth and delivering sustainable improvements in living standards.

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Closing the Poverty Gap in MENA

Relative to other developing regions, MENA countries are characterized by low levels of absolute poverty and a relatively equitable income distribution. Governments in the region also tend to spend more on the unemployed, the disabled and the poor, relative to levels in industrialized countries at historically similar levels of per capita income. This raises interesting questions about the aims and effectiveness of social policy in this region. From the 1960s to the early 1980s, for example, rates of poverty reduction were among the fastest in the world. At the same time, however, the benefits of extensive subsidies on food and energy, tend to be captured by middle income households to a greater extent.

This chapter explores the following questions: Who are the poor in MENA countries and how have social policy choices affected poverty incidence? What are efficient mechanisms for enhancing pro-poor targeting of social policy going forward?

POVERTY, INEQUALITY, AND GROWTH – THE USUAL LINKAGES

Rapid and sustainable growth is generally viewed as the primary vehicle for poverty reduction. Studies of a large number of developing countries in the 1980s and 1990s suggest that on average, every additional percentage point of growth above the average reduced the share of people living on less than US\$1 per day by about 2% (World Bank, 2001; Dollar and Kraay, 2001). At the same time however, similar rates of growth across countries can also be

associated with different rates of poverty reduction. In other words, there are differences across countries and over time in how much poverty reduction occurs at a given rate of growth. At the country level, the extent of poverty reduction depends on how the distribution of income changes with growth, on initial inequalities in income and the sources or quality of growth (Kuznets, 1955; Deninger and Squire, 1998; Iradian, 2005a).

Much has to do with existing inequalities in the distribution of income, assets and access to opportunities (Birdsall and Londono, 1997). Over the last 20 years, countries where there has been high growth have also seen inequality increase but the growth effect has been sufficiently strong such that poverty has fallen (Kanbur, 2008a). In the MENA region, both changes in average incomes (growth) and changes in inequality (distribution) worked in the same direction prior to 1985 to reduce poverty, although the growth impact was relatively larger. After 1985, as growth slowed dramatically, poverty incidence did not because of deteriorate dramatically relative stable income distribution (Adams and Page, 2003a; Iqbal, 2006a).

At the same time, however, in countries where there has been significant growth, policymakers are increasingly challenged by popular discontent over distributional income and the conditions of those left behind. This is also the case in some MENA countries. In other environments, growing average differences between groups tends to be more significant in the popular perception of inequality than equivalent increases in overall national measures of inequality. Perceptions about equality of opportunity also seem to matter (Bourguignon, Ferreira and Walton, 2007). Opportunity is presumably enhanced by access to assets which enable people to grow out of poverty including (i) natural assets such as land; (ii) human assets such as education and health; (iii) financial assets, including access to credit and (iv) social assets.

A key challenge for the social plan is how to aggregate benefits across generations but also across unrelated individuals. Such tradeoffs are also at the core of ongoing disputes about the degree of globalization, growth and distribution (Kanbur, 2008a). This is

linked with concerns for minimizing adverse poverty impacts of liberalization programs and ongoing debates regarding whether specific compensatory policies by trade reform or subsector are preferred to more general compensatory mechanisms, like safety nets. In the MENA region, this debate continues and the question arises whether the design of existing policies targets the needs of the most vulnerable adequately and whether such programmes support or undermine the growth process itself.

POVERTY IN MENA

Relative to other developing regions, MENA countries have low levels of poverty. Poverty head count ratios at the US\$1/day line¹ suggest that MENA countries are not poor by international standards and a core group of MENA countries had achieved very low levels of absolute poverty by the mid to late 1980s. On average, shares of the population living on less than US\$1.25/day were 3.6% in 2005. When estimates of poverty are based on a international poverty lines of US\$2/day, incidence for the region as a whole increases to 17% and 28% for a US\$2.50/day poverty line (Ravillion and Chen, 2008). This suggests a degree of vulnerability to poverty incidence and a significant number of near-poor. Household data tends to underscore this observation. For Egypt and Yemen as well as Algeria, Iran and Morocco in the

¹ Measuring poverty incidence is complex as poverty encompasses both monetary and non-monetary aspects. The most common measurement is the setting of a poverty threshold or a poverty line. People with welfare levels below the line are defined to be poor; those above are not. There is no universally accepted concept of poverty that can be applied to any country – US\$1/day poverty lines are widely used benchmarks for developing countries. International poverty lines are a useful way to compare poverty incidence across time and countries but are inevitably arbitrary. For MENA and other middle income countries the US\$2/day (US\$2.16 in PPP 1993) poverty line is considered more representative of poverty incidence and significant differences between poverty measures at US\$1/day and US\$2/day indicate the vulnerability of the population to poverty incidence. To better understand poverty incidence at the national level, country specific poverty lines are more useful, given data availability (Iqbal, 2006).

1990s, the proportion of poor using a US\$2/day poverty line is significantly higher (Iqbal, 2006b).

Most of the decline in poverty occurred during the 1960s and 1970s, in Tunisia, for example, it was estimated that 51% of the population was living in poverty in 1965 relative to 16% in 1985. However, this rapid decline in poverty incidence stalled somewhat during the 1980s and 1990s but accelerated somewhat over the 2000s. The poor are also heavily dependent on transfers. In Morocco, for example, transfers account for nearly 44% of the expenditure of the poorest quintile (Iqbal, 2006c). Such transfers are made up of nearly equal shares of public and private sources.

Inequality measures based on per capita consumption indicate that MENA economies have relatively low levels of inequality. Furthermore, the region overall tended to have declining measures of inequality from the 1970s to the 1990s, including during the 1980s when measures of inequality worsened throughout the developing world. However, it is not clear that these improvements continued after the 1990s. In Iran, Egypt, and Tunisia for example, Gini coefficients based on per capita consumption distributions show improvement from the 1970s through the 1990s but not much change thereafter, averaging between 0.34 and 0.44 (Adams and Page, 2003b; Iqbal, 2006a).

Who Are The Poor?

Based on household survey data, the poor in MENA are predominately located in rural areas and tend to be employed in the private informal economy as opposed to the public sector. Rural poverty rates are almost uniformly higher than urban rates and higher than 20% for all countries except Jordan and Tunisia. For many countries rural poverty incidence in the late 1990s was nearly twice as high as urban poverty rates (see Table 1) (Iqbal, 2006d).

In some countries, high and persistent incidence of rural poverty tends to be concentrated in specific geographic areas such as rural Upper Egypt where measures of poverty are 34% compared with 5% in some metropolitan areas (Iqbal, 2006d). In other countries

Table 1 National Poverty Rates.

	National Population Below Poverty Line, 1998 (%)	Urban Population Below Poverty Line, 1998 (%)
Algeria	12.2	7.3
Egypt	16.7 (1999)	—
Jordan	11.7 (1997)	—
Morocco	19.0	12.0
Tunisia	7.6 (1995)	3.6 (1995)
Yemen	41.8	30.8
Mean	18.2	13.4
China	4.6	<2
Philippines	36.8 (1997)	21.5 (1997)
Thailand	13.1 (1992)	10.2 (1992)
Mean	18.2	—
Argentina	—	29.9
Brazil	22.0	14.7
Chile	17.0	—
Colombia	64.0 (1999)	55.0 (1999)
Peru	49.0 (1997)	40.4 (1997)
Mean	38.0	35.0

Source: World Bank (2008). *The Road Not Traveled: Education Reform in the Middle East and North Africa*. Washington DC: International Bank for Reconstruction and Development, p. 68.

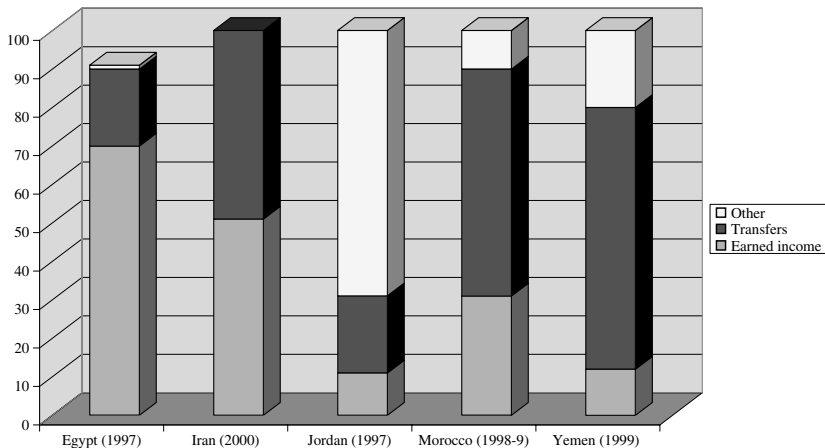
such as Tunisia, there have been significant changes in relative poverty measures across rural areas. For the region as a whole, however, there is a great deal of variability in poverty distribution within countries and between individual regions and communities. Poverty is also linked with weak asset ownership; in rural areas, for example, poverty incidence tends to be higher among small landowners. In a number of countries in the MENA region, landholdings in agriculture tend to be small and for many, farm size is inadequate (World Bank, 2002a). In rural Tunisia for example, 43% of farm families own less than 5 hectares and control 6% of arable land.

Unlike other developing regions, poverty is not necessarily concentrated among female-headed households. Female-headed

households in MENA represent a relatively small portion of total households, ranging from 5% in Kuwait to 17% in Morocco (World Bank, 2004a). However, this proportion appears to be growing as a result of rising rates of divorce and increasing life expectancy. Nevertheless, female-headed households rely more heavily on transfers from friends and family relative to male-headed households, with an estimated 36% of household income from earnings relative to 71% in male-headed households (see Figure 1).

In some countries, there are differences in poverty incidence across genders in rural and urban areas. In Iran, for example, poverty among female-headed households in rural areas was nearly 10% higher than for male-headed households during the latter half of the 1990s. In Egypt, on the other hand, the ratio of poor, female-headed households to poor male-headed households ranged from 1.2% in urban areas to 0.8% in rural areas of Upper Egypt (Iqbal, 2006e).

Other vulnerable groups include children and youth under the age of 24 who constitute a large share of the total MENA



Source: World Bank (2004). *Gender and Development in the Middle East and North Africa: Women in the Public Sphere*. Washington DC: International Bank for Reconstruction and Development, p. 70.

Fig. 1 Sources of Income, Female-Headed Households in MENA

population and are the among most vulnerable population groups in the region. Poverty rates are generally higher in this group than among adults and can be as high as 40% in some countries. In the region as a whole, it is estimated that 34 million children live below the poverty line (World Bank, 2006a). Child labor remains high in Yemen, Morocco, and Egypt. Another vulnerable group in the MENA region is the disabled, estimated to be between 3.5% and 10% of the total population, totaling between 9 and 27 million people (World bank, 2006b). Sources of disability relate to birth-related disabilities, communicable and chronic diseases, weak access to available health services and violence. In Iraq, a comprehensive national policy for the disabled has been developed to address the needs of over 100,000 in need of prostheses.

WHO CARES ABOUT WHOM?

More generally, social policy tends to differ across countries according to growth and per capita income, but also the age distribution of the population, electoral variables and forces related to social cohesion such as the degree of social affinity, openness to trade and religion (Lindert, 2004a). Theoretical models of competition for social spending point to the importance of social affinity with beneficiaries of public programs and its effects on social spending. Individuals seem to care more about the well-being of others, the greater chance that they or their families have of ending up in a similar state. The that-could-be-me hypothesis seems to explain why individuals are more sympathetic to egalitarian redistributions of income if they are closer to the next lower occupational group and also more sympathetic if they are further from the next higher occupation group. Social transfers also appear to be linked with the relative income levels and income mobility of the middle income voter. The poor, in contrast, tend to drop out of political fights over redistribution with the result that transfers tend to be less redistributive and less progressive in poorer countries or countries with greater income inequality. Social transfers also tend to be significantly lower

where the income distribution has wide gaps between middle and low incomes.

How do these theories play out in practice? Empirical evidence of social spending and transfers in the post-war period for OECD countries from 1962 to 1995 suggests that there were significant increases in levels of spending after World War II. Social transfers in the post-war period have risen quickly, in tandem with increasing per capita income, rates of voter turnout, changing population age structure and a historical momentum created by previous levels of social spending. Other important factors include the degree of social affinity and openness to trade, with the latter two having a relatively greater effect compared with earlier periods. Countries with high levels of social transfers tended to be more prosperous, had a higher degree of homogeneity and cohesion, had a history of social programs and were more exposed to international trade (Lindert, 2004b). With regard to labor market protection, in particular, there are significant differences across countries in policy choices.

Relative to industrialized countries at historically similar levels of per capita income, MENA countries demonstrate a relatively high level of social transfers (see Table 2). Furthermore, in some countries, nearly 60% of the population are beneficiaries of such programmes which raises questions about whether such expenditures constitute a safety net given that many marginalized groups are not included and social security mechanisms tend to be concentrated among former employees and workers in formal public and private sectors. (El-Rayes, 1997). The majority of social spending has been concentrated in public guarantees to free education and primary health care services, subsidies on basic food items as well as water and energy, extensive public employment guarantees and employee protection in labor regulations. In practice, such programs tend to exhibit some characteristics of social policy elsewhere; namely (i) regressivity in absolute terms, that is, to some extent many programs benefit middle and higher-income groups as opposed to the poor; and (ii) incomplete coverage – formal pension systems cover about 30% of workers.

Table 2 Social Transfers from Contemporary and Historical Perspectives

	Year	1985 pc GDP	Elderly Share (% pop)	Total Social Transfers (% GDP)	Pensions (% GDP)	Non-pension Transfers (% GDP)
Japan	1960	2954	5.7	4.0	1.4	2.7
Sweden	1930	3440	9.2	2.6	0.6	2.0
US	1910	4394	4.3	0.6	0.0	0.6
China	1990	1648	5.6	—	2.6	—
Malaysia	1990	5124	3.7	2.6	1.6	1.0
Mexico	1990	5827	4.0	2.7	1.0	1.7
Czech Republic	1993	5692	12.6	19.9	8.0	11.9
Hungary	1993	4572	13.7	32.5	10.4	22.1
Sri Lanka	1990	2003	5.2	5.3	2.2	3.1
Egypt	1990	2620	4.0	4.4	3.0	1.4
Jordan	1990	3829	2.7	7.5	0.3	7.2
Morocco	1990	2257	3.8	2.4	1.2	1.2
Syria	1990	3474	2.7	0.9	0.3	0.6
Tunisia	1990	3363	4.0	7.0	2.5	4.5

Source: Lindert, P (2004a). *Growing Public: Social Spending and Economic Growth Since the Eighteenth Century*, Volume 2. Cambridge: Cambridge University Press, p. 194–197.

Note: The GDP per capita figures are based on Penn World Tables, in 1985 international dollars and historical figures from Maddison (1985), OECD figures are from Lindert (1994) and IMF for developing countries. Elderly share are persons over 65 as a percentage of total population. Data for total transfers for MENA and other developing countries is based on IMF Government Finance Statistics including central and local government expenditures on health, social security and welfare. Total transfer shares come from sources other than pension shares.

Food subsidy programs, for example, include subsidies on bread, milk, cooking oil and sugar and have been extensive (up to 20 food items in Egypt), largely universally-provided and reaching nearly 2–3% of GDP in countries like Algeria, Jordan, Tunisia and Yemen and over 5% of GDP in Egypt in 1992 (Iqbal, 2006e). In terms of distributional impact, food subsidies have tended to benefit the richest quintiles relative to the poorest in absolute terms because the non-poor population consumes higher quantities of subsidized goods. However, they are progressive in relative terms

because the poor tend to spend a bigger proportion of income on food. Subsidized foods accounted for nearly 9% of household spending by the poor in Egypt, Morocco, and Tunisia relative to 2% for rich households (Iqbal, 2006f). Moreover, subsidized food has provided about 45% of the share of calories for the poor in Egypt and nearly 60% in Tunisia in the 1990s. Yemen is the exception in that all income groups appear to benefit equally in relative terms from food subsidies. However, these programs have tended to be costly to administer; in Iraq, the Public Distribution System food ration subsidy was estimated at about 15% of GDP in 2001 and cost roughly US\$6.30 to transfer US\$1 worth of food. Similarly, it costs US\$5.40 to transfer US\$1 worth of food to the poor in Egypt (World Bank, 2006b).

In the latter half of the 1980s, countries in the region were forced to reduce expenditures on food subsidies and have scaled down the number of subsidized foods, introduced rationing based on levels of need and in some cases, replaced food subsidies first with equivalent cash transfers and transitioned to targeted cash assistance programs. This is the case in Jordan, where universal subsidies on bread, flour, rice, sugar, and milk were progressively phased out first by increased rationing, and adoption of income criteria for the allocation of ration coupons. By the mid-1990s, subsidies on bread and flour were eliminated and some replaced with targeted, means-tested cash transfers and later by targeted cash assistance through the National Aid Fund (Shaban, Abu Ghaida and Al-Naimat, 2001).

Where governments have been more successful in reducing costs and enhancing impact on poor groups, policies have combined some degree of public control and regulations with income-based incentives. In Egypt, for example, the government introduced a multi-tier approach including *inter alia*: (i) reducing the number of subsidized commodities from twenty to four and using self-targeting by the poor through subsidies on “inferior” quality food items as opposed to “luxury” quality food items as in the case of *baladi* bread (ii) introducing some measure of means-testing (income) with a two-tier system of full (green book) and

partial (red) subsidies; (iii) liberalizing prices of key food items (Adams, 2000; Iqbal 2006a). In some developing countries, the transition towards cash transfers has also been facilitated by allowing food coupons to be cashed into savings deposits at local banks.

In general, cash assistance programs in MENA countries are relatively centralized, with generally low targeting efficiency and low ratios of transfer amounts relative to the incomes of the poor. In Yemen, for example, the main cash transfer program distributed through the Social Welfare Fund covers less than 5% of the poor, although mean per capita transfers are higher for the poor than the non-poor (Iqbal, 2006f). In other developing regions, such as Latin American and the Caribbean, there has been a growing shift toward combining targeting with incentive programs related to improving the earning prospects of the poor. Conditional cash transfers at the community level link current consumption to the attainment of certain conditions that tend to favor human capital accumulation and measures for permanent poverty reduction (Galiani, 2007a). Cash transfers are conditional on certain behaviors such as school enrollment of children or regular use of primary health services. A key component of some of these approaches which may have particular relevance for MENA countries is targeting at the community level rather than the household level with participating communities selected on the basis of a marginality index designed to identify poorer communities.

In Latin America and the Caribbean, for example, education grants are targeted at children between the ages of 6 and 13 attending primary school as well as older children; health care services and nutritional supplements focus on pregnant women, young mothers, and children under the age of five. Fixed, family-level transfers are also delivered, combined with health and educational components. The results of this approach tend to be quite significant; beneficiaries tend to have higher caloric intake and better dietary diversity and over the long term, there were permanent increases in household consumption. Higher savings and the increased

participation of microenterprise activities and investments in agricultural production also raised income-earning prospects. In terms of educational impact, most of the impact was on children already enrolled in school through higher continuation rates rather than those who were out of school. Finally, there is evidence that children who benefited from infant nutritional supplements and health checkups also reported better school performance in terms of reductions in the age of starting school, timely grade progressions and increases in the number of grades of school completed (Galiani, 2007a).

MENA countries are not unique in providing energy subsidies to income groups – but the cost of these subsidies is high and rising as oil prices have increased. Estimates have ranged from a high of nearly over 9% of GDP in Yemen in 2005 to nearly 6% in Jordan (see Table 3). Across the board, rich households tend to benefit more than poor households from energy subsidies – in Iran, for example, leakage rates for energy subsidies, that is, the share of

Table 3 Fuel Subsidies in Developing Countries (% GDP)

	2003	2005
<i>Explicit subsidies</i>		
Azerbaijan	5.1	2.8
Bolivia	0.6	0.8
Indonesia	1.5	4.2
Jordan	0.0	5.8
Yemen	5.0	9.2
<i>Implicit subsidies</i>		
Azerbaijan	10.0	13.9
Bolivia	1.7	5.2
Ecuador	1.4	3.6
Egypt	3.9	4.1
Gabon	0.4	1.6

Source: T. Baig, A. Mati, D. Coady and J. Ntamungiro (2007). Domestic Petroleum Product Prices and Subsidies: Recent Developments and Reform Strategies. *IMF Working Paper Series* WP/07/71, p. 10.

subsidy accruing to the non-poor, is estimated at 94% in urban areas and 89% in rural areas (Iqbal, 2006g). Similar results hold in Yemen and Egypt, although the regressive impact is not as uniform across products and tends to be highest in gasoline. Recently, there have been efforts underway to lower energy subsidies. Jordan, for example has taken steps toward liberalization of product prices including: (i) increasing administratively-set fuel prices to reach international parity (fuel oil, kerosene, and LPG will be the last products to reach parity for social reasons); (ii) establishing an automatic mechanism for adjusting domestic fuel prices in line with developments in international market prices; and (iii) liberalizing the market in petroleum products, ending refinery concessions and liberalizing imports and domestic distribution (Baig *et al.*, 2007a).

The potential impact of higher petroleum product prices at the household level is non-trivial. First, there are direct effects as a result of increases in prices paid by households for kerosene and gasoline, in addition to higher prices for other goods and services (food, transportation, electricity consumption) which are linked with higher costs of fuel inputs. On average, a 50% increase in domestic petroleum product prices has resulted in a 5% decrease in household real income (Baig *et al.*, 2007b). Indirect effects tend to be even higher since food and transportation are a significant share of household spending. To offset these effects, in Jordan, for example, higher petroleum product prices were combined with an increase in the minimum wage, along with a rise in salaries for low income employees. At the same time, an electricity life line tariff was maintained at low levels. Projected increases in funding to the National Aid Fund were also expected to produce additional relief. A one-time bonus was also extended to low income government employees together with cash transfers to low income households (Baig *et al.*, 2007b).

In general, subsidies are not a good substitute for lack of employment opportunities and well-functioning product and factor markets. The poor tend to be not only food-poor and fuel-poor

but they are also poor with regard to income-generating opportunities. In many cases, monetary transfers are the best way to help the poor, in lieu of blanket sectoral subsidies which are very difficult to target. Policies which operate through the welfare system will generally have better distributive properties than sectoral subsidies, by giving households freedom to decide how to spend income across different goods and services (Estupinan *et al.*, 2007a). In the case of electricity and water subsidies, for example, rebates may be a way to improve efficiency and gradually scale back inefficient subsidies and transfers. In some GCC countries, for example, pilot projects using prepayment of electricity fees through metering and the use of smart cards and codes have helped to raise awareness of daily energy use and reduced consumption. Such mechanisms could also be used to give rebates for reduced energy consumption, in conjunction with higher electricity prices and pro-poor targeting (Holt and Devlin, 2003).

However, there are important caveats to keep in mind with regard to replacing sectoral subsidies with cash transfers. First, there may be externalities in the consumption of some of these goods or because they are deemed to be merit goods (Estupinan *et al.*, 2007d). In some cases, a specific subsidy increases resources available to certain members of the household (women, children, elderly) which may not be available in the event of a monetary transfer to the head of household. In the case of transport subsidies for example, children's education, as well as children and women's access to health services and perhaps other goods and services requiring mobility, may be valued by society more highly than by the head of the household. In this case, the direct provision of subsidized services such as transport may be a better mechanism to achieve society's goals than a monetary transfer to the head of the household. In addition, setting up means-testing mechanisms to screen beneficiaries and the institutions required to make monetary transfers on a regular basis can be costly.

However, even in these cases, consideration can be given to improving or redesigning the welfare system to benefit the poor instead of middle-income households and ensuring appropriate

targeting within households. In the case of staple foods, as noted previously, there are effective ways to channel resources to poor households using consumption patterns of poor and non-poor households – an empirical issue and one which needs to be addressed when designing subsidies. Other methods for improving targeting of demand-side subsidies are identifying certain categorical groups such as students or the elderly. Egypt's food subsidy reform uses self-selection targeting; that is offering different qualities of the same good so that lower qualities which appeal to low-income users can be subsidized, relative to higher qualities of the good consumed by rich households. Geographic targeting to areas where low-income households are overrepresented is another means of improving the focus of social programs. Generally, the more institutionally developed the country, the less sectoral subsidies are justified on social welfare grounds. What remains important, is analysis of the objective at hand and an evaluation of alternative subsidy instruments including the use of welfare policies outside the specific sector.

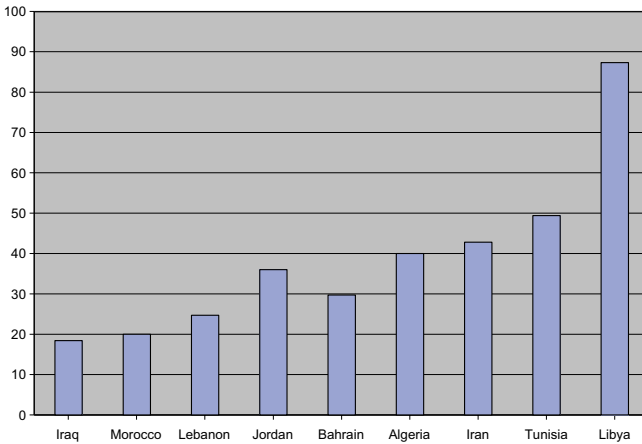
At the same time, it is important that increased targeting of social protection policies does not reinforce underlying inequalities. In Morocco, the government launched the BAJ1 (Premier Programme de Priorites Sociales) program in 1996–97, a development program focusing on 14 targeted poor communities with the aim of building basic health, education and infrastructure investments. Assessment of the degree of poverty targeting for this program suggests that only five of the targeted provinces were among the poorest nation-wide and most did not appear to be selected on the basis of poverty incidence. However, targeted communities did appear more disadvantaged when based on wider measures of welfare including infant mortality, literacy, primary school enrollments, the share of girls in primary enrollments and access to electricity and safe water. Nevertheless, a large portion of Morocco's poor live outside the BAJ1 provinces (van de Walle, 2005a). Intra-regional targeting tends to work better than inter-regional targeting and this seems to bear out in the Morocco case. Within provinces, for example, a number of programs, for example,

targeted the poor in rural provinces and the non-poor in urban areas. There were no programs with significant impact on the urban poor. This suggests a political economy imperative of leaking some benefits to urban elites. (van de Walle, 2005b). Related programs such as the Promotion Nationale, a public works program aimed at increasing employment and small-scale infrastructure, largely benefited the non-poor rather than the poor with significant resources aimed at financing permanent employment. A rural potable water investment program, PAGER, demonstrated similar results, as did budgets allocated to NGO literacy and poverty programs. The Health Ministry's budgetary allocations across provinces was, in fact, biased against poorer areas. Funding under the drought prevention program (PNLCES) provides for public works employment and pasture with little evidence of pro-poor impact.

Pension Systems

Most pension systems in the MENA region are fragmented, covering some categories of workers and not others, and inhibiting the mobility of workers across sectors. Countries with large public sectors such as Algeria and Libya have higher coverage rates, given that most pension systems cover at a minimum, civil servants (see Figure 2). In Morocco, on the other hand, where a large share of the labor force is employed in agriculture and in Yemen, where informal employment is higher, coverage rates are lower. On average, mandatory schemes cover 34% of the work force – mostly private formal workers and civil servants. (see Fig. 2) (Robalino, 2005a).

Average replacement rates are nearly 80% for MENA relative to 55% in OECD Countries. Gross replacement rates as a function of income range from 100% of average earnings in Yemen, Iraq and Iran to 60–80% in most other MENA Countries. In Ireland, on the other hand, targeted replacement rates are 30%. Conversely in countries such as Yemen, there is also no minimum pension guarantee (Robalino, 2005b). Furthermore, in most



Source: Robalino, D (2005), *Pensions in the Middle East and North Africa: A Time for Change*. Washington DC: International Bank for Reconstruction and Development, p. 223. World Bank data.

Fig. 2 Pension Coverage in MENA Countries (% labor force)

OECD Countries and developing regions, replacement rates decline significantly with income. Thus pension values at average earnings levels in MENA are nearly 40% higher than in other countries (Table 4). In general, schemes for civil servants target higher levels of income replacement than schemes for private sector workers. Targets for basic or minimum pension guarantees as a percentage of average earnings range from 20% in countries such as Morocco to 66% in the case of Iran.

One measure of the generosity of MENA's pension system is pension wealth. This refers to the net present value of future pension benefits and, unlike measures of replacement rates, takes into account the differences in life expectancy and the age at which people become entitled to the pension. Average pension wealth for MENA workers is 14 times average earnings or 54% higher than in OECD countries, 72% higher than in Europe and Central Asia and 64% higher than in Latin America and the Caribbean (Robalino, 2005c). This also reflects broadly similar replacement rates to workers with different levels of earnings and

Table 4 Gross Replacement Rates (% individual earnings)

Level of Earnings	Mean	Minimum	Maximum
<i>Average earnings</i>			
Middle East and North Africa	77.9	37.5	115.5
OECD	56.4	30.6	101.9
Eastern Europe and Central Asia	56.4	38.4	87.2
Latin America and the Caribbean	57.2	36.0	102.6
<i>Low Earnings</i>			
Middle East and North Africa	81.3	42.5	132.0
OECD	74.6	47.3	115.5
Eastern Europe and Central Asia	63.7	47.3	96.2
Latin America and the Caribbean	77.7	39.1	105.3
<i>High Earnings</i>			
Middle East and North Africa	75.7	37.5	115.5
OECD	46.4	15.3	95.2
Eastern Europe and Central Asia	50.4	25.4	75.4
Latin America and the Caribbean	48.3	29.4	89.0

Source: Robalino (2005), p. 68.

Note: Low earnings are defined as half the average, high earnings are defined as double the average.

the earlier eligibility age for full-career workers. At the same time, however, MENA's pension systems are generally making promises they will not be able to keep. Pension systems have real implicit rates of return on contributions above 5% or 6% per year relative to rates of economic growth of 3% to 4% per year. Implicit pension debts are large, generally higher than 50% of GDP and as high as 90% of GDP in the West Bank and Gaza.

Relative to developing countries in Eastern Europe and Central Asia, as well as Latin America and the Caribbean, MENA countries also have relatively homogenous pension systems (i.e. the traditional defined-benefit model) with little targeting. In other countries, for example, there tends to be a combination of (i) resource-tested schemes in which pension benefits are targeted at lower income retirees; (ii) basic schemes where the pension is a flat rate amount per year of contribution or residency;

(iii) earnings-related schemes in which pension benefits are linked with past earnings; and (iv) defined-contribution schemes in which pensions depend on the value of contributions made, investment returns earned and the rate at which accumulated capital is converted into a retirement-income stream. There are also greater institutional variations in other developing regions; countries in Latin American and the Caribbean, for example, have mandatory provision of private pensions; in other countries, there are many defined-contributions plans operated by financial service companies.

Furthermore, redistribution occurs but it is not transparent. (Robalino, 2005c). In all pension schemes there are implicit transfers from young to old workers, regardless of income level since the IRR is allowed to vary by the age of enrollment in the system. At the same time, workers with average earnings have pension values around 38% higher than in other regions – but among higher-income workers, pension values are between 50% and 63% higher. Among low-income workers, pension values are only 5% higher relative to Latin America and the Caribbean, 9% higher than in OECD countries and 27% higher than countries in Europe and Central Asia. Overall, these systems tend to pay more favorable benefits for higher income and skilled relative to low-income, unskilled workers.

In terms of gender equity, pension wealth is higher for women than for men, even when replacement rates and eligibility rates are the same. Average pension wealth tends to be 22% higher – in part, because retirement rules tend to be more flexible for women and because women live longer than men on average. This is also true in the MENA region. In Bahrain, for example, women live nearly ten years longer than men. Average implicit rates of return are higher for women than for men and the rules for transferring survivor rights to children are the same for men and for women except in Morocco and Iran.

Given the financial unsustainability of current pension systems, lack of adequate targeting and fragmented coverage, there

is a need to redesign certain features of these systems. A primary issue is the extent to which pension systems provide extensive coverage for middle and high-income households and lack of financial sustainability for most schemes. In general, there is a need to ensure a basic pension guarantee which is close to the poverty line i.e. 15–20% of average earnings and reduce gross replacement rates for average workers to or below 50%. In addition, a ceiling on covered wages at 2–3 times average earnings is also a consideration. It is important to allow households to diversify sources of income for retirement by developing the necessary regulatory and supervisory frameworks for the development of voluntary long-term savings instruments. Once the pattern of income replacement has been chosen – policymakers have a wide range of systems to choose from, based on financing, risk distribution and management. In Jordan and Morocco, for example, pension reforms are underway which maintain current defined benefit formulas as is, with the introduction of special rules to enhance financial sustainability and issues of equity. Such measures (i) include all salaries in the calculation of the pension, indexed to the growth rate of the average covered wage; (ii) mathematically link the retirement age to the level of the targeted replacement rate, the contribution rate and life expectancy; (iii) adjust the retirement age to take into account changes in life expectancy; (iv) introduce fair penalties for early retirement and fair compensation for individuals retiring later; and (v) adopt an automatic mechanism to index pensions by the growth rate of the consumer price index (World Bank, 2006c).

One alternative which allows greater coverage for workers across sectors is the Notional Accounts (NA) system in use in countries of Central and Eastern Europe and Sweden and which is being adopted in Egypt. The NA system is financed on a pay-as-you-go basis but uses a different benefit formula (World Bank, 2006c). Individuals contribute, with contributions registered in notional personal accounts which reflect balances paid in, not actual savings. Notional interest is credited to these

accounts and upon retirement, the balance in the account is used to compute the value of the pension received by the individual for the rest of her life. Higher retirement ages result in a higher pension paid for a given account balance. A key issue is how to define the notional interest rate – generally a good proxy is the growth rate of the covered average wage, with adjustments as a function of the liabilities of the pension system overall and expected contributions. Casual workers and the self-employed can contribute at lower rates and the pension system as a whole, offers a minimum pension guarantee financed either through additional contributions from plan members or from general revenues. Such revenues could also match the contributions of low-income individuals to guarantee an adequate pension upon retirement.

The end result of such reform efforts should be a pension system that is financially self-sustainable where benefits are linked to contributions in a transparent way – improving the incentives to contribute and reducing distortions in labor supply and savings decisions. However, at the same time, policy makers tend to face a tradeoff symptomatic of social protection mechanisms more generally, namely a tradeoff between financial sustainability, on the one hand, and higher variance across individual outcomes on the other.

Family Networks and NGOs

MENA countries have strong family structures and social networks in which households rely on members or relatives to offset the effects of crises and loss of income. Although few statistics are available, it is likely that the share of the elderly living with their children in the MENA region is considerably higher than in OECD countries. In Jordan, for example, it is estimated that 40% of those aged 60 or older live with their children (Robalino, 2005). However, at the same time, recent studies show a continuing trend toward the nuclear family, linked with urbanization, government employment and education.

Relatives nevertheless remain closely interlocked in a web of relationships linked to neighborhoods, communities and others (Barakat, 1993).

Social protection field studies offer some interesting insights into the practice of family-based support. Household surveys in the West Bank and Gaza, for example, suggest that nearly one-half of households give assistance to family and relatives – mostly in the form of gifts for religious and social occasions. About 10% give regular, informal support to other individuals or families within their kinship group and only 4% gave regular assistance to individuals or families outside their kinship group (World Bank, 2002b). In rural communities in Yemen, family support is enhanced with local informal lines of supplier credit. A 1998 study of rural households living on less than 5000 riyals month indicated that nearly half of the survey sample was in debt to relatives or neighbors (47% total) and local retailers and traders (42%). Unpaid or partially paid debt was largely in the term of a running line of credit, with households paying off what they could when they were able.

Rendering part of the economic returns on assets to the poor in the form of *zakat* or a wealth tax is a central pillar of Islam. In some countries, *zakat* funds are collected and administered by the state; in others, collection and distribution is private and voluntary. In both cases, collection and expenditure of *zakat* revenues is somewhat unpredictable; at times, funds remain unspent while distribution is at times, sporadic (World Bank, 2002b). In Yemen, for example, inflow of *zakat* funds is concentrated during Ramadan and provides a major source of social protection, but tends to ebb and flow through the remainder of the year. In the West Bank and Gaza, traditionally, a large portion of social services were provided through NGOs and charities using resources collected from *zakat* and *waqf*. *Waqf* are charitable foundations or endowments established by higher-income individuals and groups to support activities for the poor including community schools and others.

FUTURE DIRECTIONS FOR SOCIAL PROTECTION IN MENA COUNTRIES

At the core of successful social protection measures is human capital development – given its fundamental role in income generation and other ways in which human capital promotes development. In this regard, there is more to be done across the MENA region in a number of areas, particularly with regard to early childhood development. All else being equal, returns to investment in early childhood will be higher than returns to investments made later in life, because beneficiaries have a longer time to reap the reward from these investments. There are also dynamic complementarities involved – in the context of the MENA region, this is echoed by an Arabic proverb; “Open a school, close a prison” (Ribeiz, 2008).

Going forward, Early Childhood Development (ECD) projects are likely to be a growing focus of social protection programs in the MENA region given the number of vulnerable children. Such interventions work to improve physical, intellectual, and social development of children early in life, generally from the age of zero to six. Included in these types of programs are activities such as growth monitoring, day care services, preschool activities, improved hygiene or health services and programs which work with parents to improve parenting skills and child-rearing practices. Formal and informal services include center-based programs, such as daycare centers and preschools as well as more flexible home-based programs with lower administrative costs. A recent survey of ECD interventions suggests that the most effective results tend to occur in younger, disadvantaged children through programs with a longer duration, of higher quality and intensity and which are integrated with family support, health, nutrition, and other educational services (Engle *et al.*, 2007). Such programs appear to have positive impacts on a number of human development outcomes including increased years of school among participants relative to control groups, higher median earnings and higher rates of

employment. Assessment of ECD programs in developing regions such as Latin America and other developing countries suggest similar, but more tentative results. Program participation is associated with improved school readiness, a higher probability of on-time primary school enrollment, lower rates of grade repetition and dropouts and improved academic performance overall. Such programs also have favorable effects on other family members, particularly those in charge of child care activities (Galiani, 2007a).

Managing the Risks of Poverty Incidence in Rural Areas

Other interventions with significant potential for lowering poverty among vulnerable groups include better risk management practices. Fundamental to improving livelihoods of the poor in MENA is a better understanding of risks and its consequences on households and firms, including small farmers. For example, in Morocco, rural poverty incidence is linked with the risks of drought and rainfall variability. A typical coping strategy for small farmers and small households in developing countries is to layer risks – that is to employ *ex post* and *ex ante* coping mechanisms by transferring some risk onto commercial markets and self-insuring, depending on the probability of the loss and the costs of insuring. These groups are particularly vulnerable to asset and income shocks such as weather-related events, price and even health shocks which can lead to asset drawdowns, degradation of the natural environment and lower average lifetime earnings (Alderman, 2006). With regard to asset drawdowns, coping with shocks often comes at the expense of investments in the next generation, as farmers draw down productive assets, i.e. selling livestock. Meeting current consumption needs after a shock can also degrade the environment at the cost of future livelihoods in rural communities. In addition, many households also attempt to reduce risks at the expense of lower expected average incomes. Thus, farmers and smaller rural households in particular, would benefit from a greater variety of instruments

with which to manage shocks that affect both current earnings (such as price shocks) as well as shocks that reduce future livelihood by degrading or destroying assets. This is analogous to households liquidating assets or borrowing in order to smooth current consumption.

In MENA countries such as Morocco, farmers have managed risks for drought, in particular, by adopting strategies such as water conservation, use of drought-resistant seeds, diversified farming systems, food storage, use of livestock and development of off-farm sources of income. A large portion of Morocco's agriculture is not irrigated and while the majority of crops rely on adequate rainfall, this has translated into wide variations in yield and production of cereals which declined from 9.5 million tons in 1994 to 1.6 million tons in 1995 due to drought, for example. With increases in production linked to price supports and growth in cereal producing regions to less favorable lands, variability in yield and production have risen in the 1980s and 1990s. Average yields have ranged from 0.5 to 1.5 tons per ha over the last 20 years.

In low rainfall areas, one risk mitigation measure is to adopt low-input farming applications, increasing input application only when climactic (rain) conditions are favorable. However, this lowers potential yields as well. Uses of local varieties of seeds which are more resilient to drought, without regard to other qualities such as less responsiveness to fertilizers and lower yields, is prevalent. The lack of access to financial services, particularly banking services, has contributed to risk mitigation practices whereby farmers feed grain surpluses to livestock during good years due in part, to the risks of spoilage in physical grain storage. During drought years, both livestock and thus savings, are threatened by the absence of drinking water; when farmers are in need of cash, they are forced to sell livestock when prices are low.

Government policy in Morocco has largely focused on helping farmers through provision of agricultural credit via the public agricultural bank, the Caisse Nationale de Credit Agricole (CNCA).

The CNCA financed about 11% of loans to the Moroccan economy and 80% of loans to the agricultural sector in the early 2000s. However, CNCA's financial position remained weak. However, with a high level of non-performing loans, loan delinquency was high and likely linked with weather risks. An important issue has been the government's forgiveness of farm loans following droughts. In 1999, CNCA required purchase of drought insurance as a mandatory condition for obtaining an agricultural loan, contributing to a significant increase in insurance subscriptions, together with a drop in the number of CNCA borrowers. In addition to fiscal costs related to support of CNCA and agricultural lending, the Moroccan government also provided drought relief following the 1999–2000 drought. An estimated MAD 6.5 billion was required to provide immediate support to drought stricken areas (Skees *et al.*, 2001b).

The pilot drought insurance program introduced in the mid 1990s was managed by the public insurer, the *Mutuelle Agricole Marocaine d'Assurances (MAMDA)*, an agricultural mutual insurance company. The program provided insurance if yields fell below certain thresholds but in the latter half of the 1990s, the program began to indemnify threshold levels of revenue, with insurance still triggered by yield shortfalls. During the first year of the program, the government also subsidized 50% of the premium costs paid by farmers. Of the insurance sold directly by MAMDA, 83% was at the highest level of indemnification – thus MAMDA ended up insuring mostly large farmers. In order for the insurance scheme to begin making indemnity payments, an official drought declaration was required, based on a joint decision by the Ministry of Agriculture and the Ministry of Finance, using reports from the Ministry of Agriculture's Provincial Services to verify that all the realized average yield achieved in a given rural commune was less than 60% of average historical area yield for the community.

For different levels of indemnification (low to high), insurance pay-outs varied based on realized average area yield for rural communes and pay-outs based on assessments of individual was

MAD 12.2 million farm yields. In 2000, the total amount of premiums collected MAD 200 million while total indemnification paid was US\$20 million. This consumed all reinsurance funds, all government contributions and most of MAMDA's contribution. Problems with the drought insurance program in particular, included basing higher indemnification levels on individual yield assessment contributing to bias and moral hazard, and adverse selection problems. In addition, high program costs in the form of MAD 12 million for premium subsidies plus about MAD 120 million worth of contributions to the scheme's indemnity fund provided coverage for only 112,000 hectares (ha) out of a total of more than 5 million ha used for cereal production in Morocco. Furthermore, the maximum indemnification available under the scheme was less than a farmer's potential income during a good year. Morocco's drought insurance scheme suggests, that much depends on good design features, institutional capacity and objective triggers and information such as, in this case, the introduction of insurance based on objective measures such as rainfall. In general, these lessons apply to MENA's social protection programs move generally.

Insurance mechanisms and social safety nets can play an increasingly important role in helping households to optimize production and consumption behavior. An interesting outcome of conditional cash transfer programs in Latin America described earlier, for example, is that beneficiaries were observed to invest 12% of their transfers, earning returns significantly higher than average in the country. This could be due to the relaxing of a credit constraint but it may also reflect the risk reduction that comes with access to a source of income that is uncorrelated with other income if it is perceived as reliable (Alderman, 2006b).

More generally, policies to improve social welfare among MENA countries can have significant potential for helping small households and firms and vulnerable groups to cope *ex ante* and *ex post* with shocks and significant economic adjustments. As growth and development accelerate, the economic vulnerability

to such disruptions is likely to increase. Governments clearly have a role to play in a number of capacities. First, by investing in infrastructure and economic policies that enable market integration and enable market-based risk management. Better communications and logistics systems, together with well-functioning banking and insurance systems can mitigate price risk and stabilize income and consumption flows more effectively than government interventions in the form of administered product and commodity prices or mandated, inefficient insurance programs. Better information flows are vital. When governments assemble agricultural and climatic information that can be employed in index-based insurance, for example, they also provide a public good that can improve the efficiency of markets and reduce costs. Finally, through better savings instruments, and well-functioning financial markets, households can self-insure while allowing markets and investors to stabilize income more effectively.

CONCLUSION

While economic growth is an important element for poverty reduction strategies, it is not necessarily enough to improve the livelihoods of the poor. Furthermore, rising growth rates can also occur in conjunction with growing inequality, real or perceived. There are also distributional consequences of economic reform programs, technical change and global integration. All of these point to the critical importance of social policies in the growth process itself but also in helping to manage unpredictable and predictable distributional consequences of growth. The poor tend to be particularly vulnerable to such factors and access to productive assets is important for enabling the poor to respond to shocks as well as to participate in the growth process (Kanbur, 2008a).

In many developing countries, including those in the MENA region, poverty tends to result from a situation in which poor households are locked into a low-level asset or capability trap that

excludes them from income-generating activities. Social and economic exclusion makes it difficult to participate in economic activity on an equal basis with other members of society. Thus, there is a strong role for microeconomic interventions which can supplement the current consumption of the poor while improving their access to productive assets and future income-earning activities. Human capital development is at the core of such approaches.

The prevailing approach to social policy and social protection in MENA countries has included provision of sectoral subsidies which tend to benefit both poor and non-poor. There are also questions of financial sustainability for many of these programs, particularly with regard to pensions. Many social protection programs also tend to benefit middle and upper income households and geographic areas where the poor are not necessarily concentrated. Limited use of means-testing and a general lack of pro-poor targeting in these programs raises questions about intended beneficiaries and the implicit nature of redistribution. More research on issues of horizontal inequality and the allocation of social spending across groups and geographic areas is particularly important for understanding the role of social policy in the growth process for MENA countries. Further consideration of risk management instruments which support growth could complement such efforts. Regardless of its objectives, social policy across the MENA region has tended to be linked with stability in income distribution and the maintenance of a particular social balance and equilibrium. Whether this approach is the most appropriate going forward, particularly with regard to addressing distributional consequences of further reforms, technical change and global integration, together with eliminating specific structural inequalities that constrain growth and development, remains to be seen.

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Development Assistance and Its Effectiveness in MENA Countries

Unlike other middle-income regions, countries in the MENA region have long been characterized as both providers and recipients of development assistance. Top donors to the region include the European Commission, the United States, France and others. At the same time, MENA countries absorbed some 16% of net Official Development Assistance (ODA) in 2006; second only to countries in Sub-Saharan Africa. The region also hosts some of the oldest donors in the developing world – including Kuwait, Saudi Arabia, and the UAE – which began to invest oil revenues in bilateral and multilateral development assistance programs in the 1960s and 1970s.

This chapter surveys patterns of development assistance in MENA countries as both recipients and donors of official development aid. It seeks answers to the following questions: What is the nature of development assistance in the MENA region and what has been the impact on the region's development? What tools and approaches can improve the effectiveness of development assistance for developing countries, including those in the MENA region?

AID AND GROWTH

Traditionally, the role of foreign borrowing has been seen by countries as a supplement to domestic savings to close the investment-savings gap and achieve faster growth (Thirwall, 2006a). In practice, however, the relationship between official development

assistance and growth is tenuous; much depends on the channels (macroeconomic variables) through which aid is assumed to influence growth. The effectiveness of government interventions more generally is also a primary factor (Ruhashyankiko, 2005). Proponents of aid and aid unconditionality in particular, claim that aid spurs growth – particularly short-term aid (Clemens *et al.*, 2004). Others are less sanguine, based on assessments of aid and policy choices, with the conclusion that aid does not enhance growth prospects as incomplete contracts and elite interests in part, channel aid into unproductive uses. Much depends on the economic and political environment (Burnside and Collier, 2000). In countries with good economic governance, for example, a one percentage point increase in aid raise can the growth rate by an estimated 0.5% and reduce poverty by 1%. Other studies find that the aggregate impact of aid is not linked with policies, but rather the investment channel whereby aid increases investment and then that investment increases growth (Easterly, Levine and Roodman, 2003). A separate body of literature looks at the incentives and institutional constraints within development agencies and the impact of aid on growth (Martens *et al.*, 2002).

Thus, a key issue is the extent to which aid can support ongoing domestic reforms and enhance the impact of the government's own programs. A crucial determinant is government capacity; countries which are sufficiently credible in promoting their private sectors, for example, tend to be simultaneously better at extracting growth from foreign aid (Ruhashyankiko, 2005). Experience suggests that domestic reforms are generally important catalysts for strong growth performance and poverty reduction – improvements in economic institutions and policies are key for reducing poverty. In some countries, aid flows have nurtured reforms even in distorted environments, but this has required a long-term horizon and engagement, together with an enhanced focus on increasing capacity utilization as well as money. In other cases, effective aid and private investment have tended to be complementary with development projects, generating value-added by strengthening institutions and policies to improve service delivery.

A GROWING FOCUS ON RESULTS

The Paris Declaration, initiated on 2 March 2005, is an international agreement endorsed by government officials and the donor community which aims to improve the quality of aid and its impact on development. Constituents include better tracking of progress on achieving country ownership of aid programs and better alignment between recipient and donor priorities, improved harmonization of assistance across donors, as well as the enhanced use of performance indicators and assessments to improve the impact of aid. Objectives and indicators linked to achieving progress in these areas include:

- **Ownership:** development assistance can be more effective when it is fully-owned by recipient (partner) countries and where the partner country takes the lead in determining the goals and priorities of its own development agenda. Progress is monitored by tracking the number of countries with operational national development strategies where clear strategic priorities are linked to a medium-term expenditure framework and reflected in annual budgets.
- **Alignment:** partners would benefit from national development strategies and strengthened country systems (including Public Financial Management (PFM) and procurement) via implementation of development assistance. Progress is monitored by indicators including the number of countries with procurement and financial management systems adhering to broadly accepted good practices and/or those which have reform programs in place to achieve these. Other indicators include the percent of aid flows to the government sector reported in partner budgets, the percent of donor aid flowing through country PFM and procurement systems as opposed to donor preferences, the number of parallel Project Implementation Units (PIUs), and percent of bilateral aid that is untied.
- **Harmonization:** development assistance tends to be more effective when donors adopt common procedures to harmonize aid

delivery including using pooled approaches and reducing fragmentation. This includes the use of program-based and sector-wide approaches.¹ Progress is monitored by the percent of aid provided as program-based approaches and SWAps; the percent of joint donor missions and joint undertaking of analytical work and diagnostic reviews.

- **Managing for Development Results:** the Paris Declaration is part of an increasing push for results or performance management which attempts to link outputs and activities to intended outcomes. Progress is monitored by the number of countries with transparent and monitorable performance assessment frameworks based on national development strategies and sector programs.
- **Mutual Accountability:** development assistance can be more effective when there is mutual accountability for development results by both partners and donors. Progress is monitored by the number of partner countries that undertake mutual assessments of achievements in implementing agreed commitments on aid effectiveness.

A handful of MENA countries and donors have participated actively in making commitments towards implementation of the Paris principles regarding aid effectiveness. Recent surveys² at the country level suggest that MENA countries tend to score better on alignment issues related to coordinating technical assistance with country programs (except Yemen) and maintaining a small number of parallel PIU structures (except Morocco). With regard to measures of alignment, MENA countries also score at or

¹ A sector-wide-approach (SWAp) is a process in which funding for a sector – whether internal or from donors – supports a single policy and expenditure program under government leadership. It is usually accompanied by efforts to strengthen government procedures for aid disbursement.

² Data are based on partner country surveys for Jordan, Morocco, Egypt and Yemen completed on a voluntary basis prepared by senior government officials from partner countries in close consultation with donor country offices and key actors from civil society.

above average, particularly with regard to levels of bilateral untied aid (except Egypt). With regard to measures of harmonization, most countries score higher than the average on indicators such as the use of program-based approaches (except Yemen) above average on measures such as coordinating joint donor missions (Egypt, Jordan, Yemen) and joint country analysis (Egypt, Jordan) (OECD, 2008).

AID TO AND FROM THE MENA REGION

Per capita net Official Development Assistance (ODA) has traditionally been higher than average for middle-income countries, at an estimated US\$54 per capita in 2006 (World Bank, 2008c). The largest donors to the MENA countries include the European Commission, the Arab countries, the United States, and France. In some countries, OECD-DAC³ aid tends to be relatively concentrated by donors and thus can represent a large share of assistance at the country level. In Morocco, for example, EU aid together with bilateral assistance from France represented nearly 70% net ODA in 2006. In Jordan, on the other hand, key donors such as the United States have contributed about 80% of net ODA in the same year.

From the region itself, Kuwait, Saudi Arabia, and the UAE are among the largest donors; while smaller amounts of assistance have tended to come from Algeria, Libya, Qatar, and Iraq (prior to the early 1980s). During the 1970s, for example, Arab donor countries contributed an estimated 3.5% of GNI in official development assistance compared with less than 1% in OECD-DAC countries (Neumayer 2002a).³ Thus, between 1973 and 1984, Arab donors became among the most generous donors in the world and today remain important providers of economic assistance for the Arab world but also Sub-Saharan Africa and Asia. By 2003 for example, approximately 50% of cumulative assistance by the Abu Dhabi Fund for Development Kuwait Fund and Saudi Fund was allocated

³ The Development Assistance Committee is the principal body through which the OECD deals with issues related to cooperation with developing countries.

to Arab countries, predominantly Egypt and Syria (Cotterrell and Harmer, 2005a). Aid flows have tended to be linked to oil revenues and therefore demonstrate volatility (see Table 1).

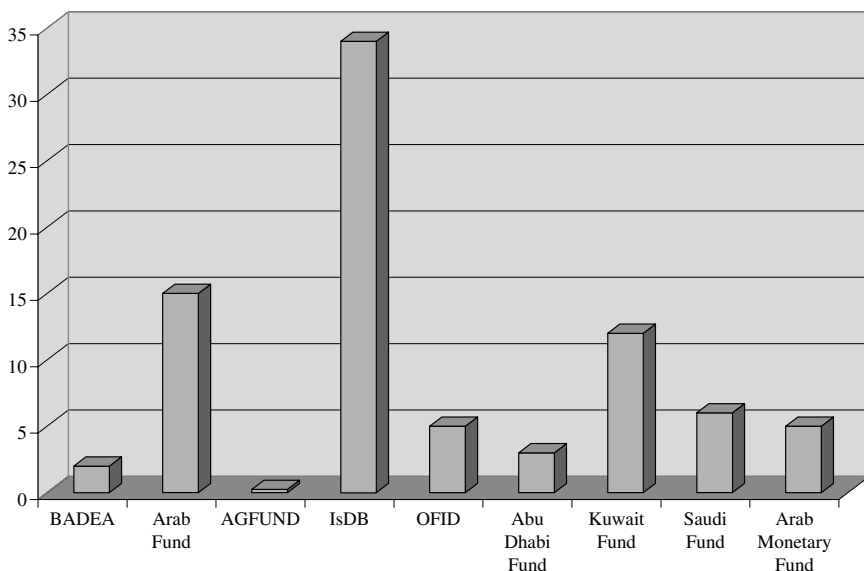
Development assistance from Arab countries tends to be channeled through bilateral grants and project assistance channeled via national and regional development agencies such as the Kuwait Fund founded in 1961 – the first development agency established by a developing country. Today, approximately 50% of assistance from Arab countries goes through such official development institutions, although the percentage varies by countries. The official grant component in loans to developing countries tends to vary by country and ranges from 30–60%.

Most projects are focused on energy, transport and water infrastructure and the social sectors, to a lesser extent, primarily in MENA, African and Asian countries. Modalities are wide ranging – from projects to technical assistance to scholarships. Other national aid agencies include the Abu Dhabi Fund for Development established in 1971 and the Saudi Fund for Development (1974). Multilateral agencies were established largely in the 1970s including the Arab Fund for Economic and Social Development (1971), the Arab Bank for Economic Development in Africa (BADEA) (1974), the Arab Monetary Fund (1976), the Islamic Development Bank (1975), the OPEC Fund for International Development and the Arab Gulf Fund for UN Development Organizations established in 1980. Some of these institutions, in addition to conducting country and sector operations, also work to promote regional development and cooperation among Arab countries in the Middle East and Africa, together with Islamic countries and OPEC member states, respectively. The promotion of intra-Arab trade for example, is facilitated by the Arab Trade Financing Program (ATFP) established in 1989. Efforts to align the activities of these donors are facilitated by the Coordination Group (CG) of Arab and Islamic funds established in 1974, one of the oldest venues for coordinating development assistance in the world. The Secretariat for the Group is housed at the Arab Fund for Economic and Social Development. Members

Table 1 Arab Development Assistance

	Net Official Development Assistance (ODA) in Current Million US\$				
	1975-1995	1980-1984	1985-1990	1990-1994	1995-1999
Arab countries	5238.1	5710.8	2618.2	2137.5	464
Algeria	76.6	83.4	51.7	na	na
Iraq	263.1	218.3	-17.7	na	na
Libya	158.4	164.9	81.5	na	na
Qatar	199.5	138.9	5.5	na	na
Kuwait	984.8	1101.1	415.7	na	na
of which Kuwait Fund	188.9	332.7	139	na	na
Saudi Arabia	3526.0	4299.5	2250.5	na	na
of which Saudi Fund	149.6	255.3	79.5	na	na
UAE	991.8	561.2	41.8	na	na
of which Abu Dhabi Fund	76.9	53.7	-43.3	na	na
Arab Multilateral agencies	578.3	305.2	108.3	190.4	-13.2
Arab Fund for Economic & Social Development	108.2	79.3	122.5	na	na
Islamic Development Bank	108.4	121.2	-22.6	na	na
OPEC Fund for International Development	111.6	198.6	-13.2	na	na
Arab Bank for Sub-Saharan Africa	29.6	33.5	13.8	na	na
Development Assistance Committee (DAC)	10869.9	17685.0	28030.4	41448.7	37731.3
Total Arab ODA as % DAC ODA	54.1	34.47	10.36	5.76	1.22

Source: Neumayer (2002). Arab-Related Bilateral and Multilateral Sources of Development Finance: Issues, Trends and the Way Forward. United Nations University *WIDER Discussion Paper*, No. 2003/96, p. 8.



Source: OPEC Fund Newsletter May 2006.

Tenth Conference of the Heads of the Arab Funds, the Islamic Development Bank and the OPEC Fund convenes in Vienna.

Notes: Arab Bank for Economic Development for Africa (BADEA)

Arab Fund for Economic and Social Development (Arab Fund)

Arab Gulf Program for United Nations Development Organizations (AGFUND).

Islamic Development Bank (IsDB)

OPEC Fund for International Development (OFID)

Abu Dhabi Fund for Development (Abu Dhabi Fund)

Kuwait Fund for Arab Economic Development (Kuwait Fund)

Saudi Fund for Development (Saudi Fund)

Fig. 1 Arab Aid Organizations: Cumulative Commitments (US\$ billion) 2005

include the Arab and Islamic funds listed above and the group meets biannually to discuss collaboration (see Fig. 1).

EMERGING TRENDS IN ARAB DEVELOPMENT ASSISTANCE AND EMERGING MARKET DONORS

On average, non-OECD-DAC donors represent a growing share of official humanitarian financing and in 2003, for example, states such

as Saudi Arabia, Kuwait, South Korea, Qatar, India, and South Africa were among the largest donors in humanitarian relief (Cotterrell and Harmer, 2005). In the GCC states, this assistance is distributed in growing amounts through national Red Crescent Societies established in Saudi Arabia and Kuwait in the 1960s and in the UAE in the 1980s and charitable foundations. National Red Crescent Societies (RCS) function as members of an international framework based on distinctive principles of universality and shared operating guidelines. Yet, at the same time, they are linked with the activities and priorities of national government agencies, and in some cases, high profile political figures (Cotterrell and Harmer, 2005). This relationship makes Gulf RCS(s) somewhat unique relative to the international red crescent movement. In addition, national societies regularly act bilaterally as well as through the International Federation of the Red Cross and Red Crescent Societies.

Relative to emerging donors in Asia there is a greater level of humanitarian support from Arab countries channeled through international and regional agencies such as the UN Relief and Works and Agency for Palestinian Refugees in the Near East (UNRWA), the Red Cross/Red Crescent Societies and others, as well as through NGOs. Support for UN humanitarian and development organizations is also channeled through the Arab Gulf Fund for UN Development Organizations which provides grants and emergency assistance (Cotterrell and Harmax, 2005b).

Another growing trend in development assistance is triangular development cooperation, an initiative in which development assistance from traditional donors is implemented by southern donors, often in the form of technical cooperation. Triangular cooperation is significant in volume for a number of southern donors including MENA countries such as Egypt and Tunisia. The primary northern funders are Canada, Finland, France, Germany, Japan, Norway, Spain, Sweden, the UN, IsDB and OFID. Triangular development cooperation is used to fund a range of development programs and projects. In Tunisia, for example, Third Party Experts have worked with providers of Japanese

development assistance to deliver technical assistance and capacity building expertise in areas ranging from public administration to reproductive health services in Sub-Saharan African countries (ECOSOC, 2008).

Other emerging trends for Arab development assistance in the GCC states include the proliferation of foundations promoting, among others, public-private partnership approaches to development assistance. Such initiatives are based on financial contributions from governmental and quasi-governmental entities together with private donors who agree to conditions for supporting causes that seek to maximize the impact of public and private contributions (Ibrahim, 2008).

AID EFFECTIVENESS IN MENA COUNTRIES

While assistance flows to the MENA countries have been significant, it is important to keep in mind that they have also occurred alongside rapid growth in private transfers in the form of remittances. From 1973–1989, for example, cumulative official assistance to Arab recipient countries amounted to US\$55 billion whereas net worker remittances totaled more than US\$87 billion over the same period (van den Boogaerde, 1991a).

Empirical analysis of aid effectiveness in the MENA region is very limited; although tentative results are generally consistent with broader analysis (Montes and Van Rijckeghem, 2005; Alesina and Dollar, 2000).⁴ With regard to growth effects, there is evidence of a positive effect of foreign aid on investment, with little impact on policy variables associated with openness, FDI and the quality

⁴ Alesina and Dollar (2000) examined the impact of recipient needs and performance as well as donor interest on bilateral net ODA in a panel data context. The findings of this study suggest that donor interests tend to dominate the aid allocation process, relative to recipient needs and performance. A country receives almost 500% in additional aid for being Egypt, almost 200% more for voting in line with Japan at the UN and 75% more for having a colonial past. In contrast a country receives only about 15% more for being relatively open and 35% more for being relatively democratic.

of institutions. The growing shift toward social sector infrastructure (education, water, and sanitation) and sector aid has increased substantially over the last 30 years and appears to have favorable influences on the effectiveness of aid. Relative to non-MENA countries, for example, sector aid appears to have had favorable effects for improving access to water and sanitation, increased shares of paved roads and boosting secondary school enrollment rates. Studies of the impact of financial assistance from Arab donors suggest somewhat similar results. From approximately 1974 to 1989, for example, Arab aid financed more than 7% of Arab recipient country imports and represented over 15% of investment (van den Boogaerde, 1991b). This trend reversed itself after 1980 and through the latter half of the decade (van den Boogaerde, 1991).

In summary, Arab aid flows have tended to be large, somewhat volatile and generally granted unconditionally allowing recipient countries to implement their own development programs. While aid flows in the 1960s and 1970s were directed largely toward neighboring countries, the number of beneficiary countries and sectors has widened over the years under a policy of “regional globalism.” Similar to aid flows from OECD-DAC donors, Arab aid appears to have played a significant role in helping countries to close existing foreign exchange gaps. Remittance flows and rising private capital flows from the Gulf States have also helped. Finally, an important influence of Arab aid has been a focus on the social requirements of regional stability and security (Shihata, 1982).

CAN M&E SYSTEMS IMPROVE AID EFFECTIVENESS IN MENA COUNTRIES?

The global trend towards getting incentives “right” in public institutions is also becoming an important part of development assistance. The proliferation of tools for enhanced monitoring and evaluation (M&E) in public policy offers significant potential for enhancing aid effectiveness. These include the use of performance indicators and results-based methodologies, theory-based

evaluation using multivariate analysis, formal surveys such as household surveys and impact evaluation and analysis. While a number of these instruments are overlapping to some extent, each tends to offer advantages and disadvantages for improving development effectiveness. The choice of which tool is appropriate in any given situation will depend on the underlying objectives as well as the main stakeholders, the speed with which the information is needed and the cost.

The growing use of performance indicators and results-based approaches, in particular, across donor and government agencies, is present to varying degrees at the macroeconomic, sector and program levels. In general, such methods attempt to improve aid effectiveness by providing information on the amount of resources expended for particular programs (inputs) and the products and services that a program delivers (outputs) (see Table 2). This enables regular monitoring of program expenditures and services provided, also referred to as performance monitoring. Results-based management aims to link measures of inputs and outputs to the achievement of targeted improvements in conditions of client populations (outcomes). Finally, linking information on outputs and outcomes with costs, helps to provide a measure of cost efficiency or its reciprocal, productivity. Input indicators at the program level include, in the case of vocational training, for example, the number

Table 2 Example of Input, Process, Output and Outcome Indicators In Primary Healthcare

Nature of indicator	Input	Process	Output	Outcome
Vaccination coverage	Vaccines and syringes ordered	Vaccinators and vaccines available in the health center	Levels of DPT3 or measles coverage	Decreased measles incidence or under-five mortality rate

Source: Loevinsohn, B (2008). *Performance-Based Contracting for Healthcare in Developing Countries: A Toolkit*. Washington DC: International Bank for Reconstruction and Development, p. 29.

of full-time person years spent on the program whereas outputs include products and services delivered, such as the number of people trained. Outcomes might also include the employment rates for persons completing the program. A World Bank vocational training program in Yemen during the 1990s, for example, achieved significant progress in meeting specified targets for numbers of graduates from vocational training centers, but the extent to which graduates were employed remained uncertain due to inadequate compilation and tracking of outcome indicators (World Bank, 2005).

Implementing results-based approaches involves a number of stages, including consultation with stakeholders to identify needs and concerns in terms of service delivery. Data collection is needed to identify existing performance data available, including measuring both outputs and outcomes and identifying a set of indicators linked with desired outputs and outcomes. This data can also help to establish a baseline and set targets for improvements in programs and policies. To be more useful, such indicators can be linked with resource flows available to programs as well as outcomes for different client groups i.e. by gender, income, location, age.

Inclusion of results-based frameworks is rapidly becoming an integral part of project preparation and monitoring in a host of donor agencies. A recent World Bank project for improving rural roads access in Morocco, for example, demonstrates the value of including monitoring and evaluation in all stages of project preparation (see Box 1). It also highlights some important features of effective development assistance linked with country ownership, alignment and harmonization. First, donor financing supports a “slice” of an existing national investment program for rural road enhancement being implemented by national entities, with strong coordination at local and regional levels and objective criteria for identifying provinces receiving funding for road improvements. Infrastructure investments are combined with strengthening institutional capacity building in areas such as project design and selection as well as monitoring and evaluation of program implementation. All of this has the potential to enhance the effectiveness

Box 1. Improving Rural Roads Through Results-Based Approaches in Morocco.

A World Bank rural roads project in Morocco provided \$36 million in funding, for a portion of the government's National Program of Roads (Second Phase) (NPRR-2) estimated at US\$ 1,065 million designed to improve access to all-weather roads for an estimated 3 million people living in rural areas. Differentials between Moroccan provinces in terms of rural road accessibility are high, ranging from 75% of the rural population with access to roads in better-served provinces compared with 20% in more isolated areas. NPRR-2 was projected to improve about 15,000 km of roads, about 59% of which are provincial roads, 34% are local rural roads and 7% are national and regional roads. Bank funding supports rehabilitation and upgrading of rural roads and institutional capacity building over a five to six year period.

Why increase rural road access? Poverty in Morocco is largely a rural phenomenon and a beneficiary survey conducted for previous rural road projects in Morocco indicated that construction of rural roads had several positive social impacts including improved access to schools and health centers, higher quality and choice in transport services, improved access to and choice of goods and foodstuffs as well as lower transport costs. A 1998 study of two rural roads in the province of Tiznet for example, showed that school enrolment increased dramatically; particularly for girls (23%) as a result of road improvements. Roads also provide better access to market opportunities for agricultural producers and lowers costs for basic requirements – in the province of Taroudant, located in the eastern mountainous region, the price of Liquified Petroleum Gas dropped by half while the cost of public transportation declined even further as a result of road improvements.

The project accommodates Morocco's relatively decentralized system of political and social organization by focusing interventions at several levels. Roads to be improved were identified as a part of a provincial prioritization for rural roads on the basis of a road inventory prepared by a national organization, the Directorate of Roads and Road Traffic (DRCR), the implementing agency, and approved by provincial and local authorities. DRCR representatives are co-located with provincial officials to coordinate and supervise the program sub-projects. Rural road rehabilitation sub-projects are selected based on a number of criteria including improving rural access

(Continued)

Box 1 (Continued)

in a cost-effective manner and/or having satisfactory economic returns in the case of higher traffic roads. Provincial and local authorities review draft provincial priority programs prepared by the DRRCR and collectively approve them as well as propose needed amendments. Lessons learned from the previous phase have been used to improve the design of NPRR-2 particularly with regard to using local materials and labor intensive methods of works when appropriate. Guidelines for design, implementation and supervision of subprojects have been developed in compliance with international standards. DRRCR monitors activities by the provincial directorate and the National Center for Road Study and Research (NRE).

Economic analysis of the NPRR-2 was undertaken to determine whether the program of investments was feasible within the overall transport sector, including a review of overall transport investments including rail, ports, airports totaling \$700 million per year. The NPRR-2 program estimated at \$80 million per year was within acceptable limits, accounting for 10% of the overall transport program. A cost benefit analysis conducted for the preliminary NPRR-2 was based on some 15,000 km of road works, demonstrating that 10,300 km with a base cost of \$684 million representing 63% of the overall program had an ERR exceeding 12%. A cost-effectiveness analysis of NPRR-2 indicated that the program was expected to benefit 2.9 million people with an average cost of \$365 per person. The overall economic rate of return for NPRR-2 was estimated at 20%; and the net present value at US\$ 330 million over 15 years. Sensitivity analysis showed that even with costs would need to be 1.5 times higher and benefits 33% lower to reduce the ERR to 12%. Furthermore, the fiscal impact of increased maintenance requirements was estimated to increase expenditures of DRRCR by \$15 million by 2015 to be met in part from the resources of a Road Fund and also necessitating higher funding requests from local authorities.

The National Center for Road Study and Research in Morocco was designated as the institution charged with designing and implementing the monitoring and evaluation system for the NPRR-2 including a National Rural Road Accessibility Index measuring the percentage of the rural population with access to an all-weather road and monitoring the achievements of targets for this indicators. Goals were set for improvements in this indicator from 45% in 2002 to 67% in 2010 and 80% when NPRR-2 is completed. In addition, an Accessibility Differential Indicator was developed to quantify the accessibility gap between the ten provinces with the lowest accessibility and the ten provinces with the

(Continued)

Box 1 (Continued)

highest accessibilities; with targeted improvement from 0.38 in 2002 to 0.60 in 2010. A Transport Service Improvement indicator was also developed to assess the impact of improved roads on the quality of inter-city transport services for passengers. A sample of roads is selected each year to measure improvement in these indicators on the basis of measures of quality of service, higher service frequencies, lower rates and more comfortable transport vehicles.

Source: World Bank (2004). Kingdom of Morocco Rural Roads Project. Project Appraisal Report. Washington DC.

of national investment resources well beyond the scope of the project. The project has a built-in monitoring system developed at the National Center for Road Study and Research, including measuring progress through the National Rural Road Accessibility Index or the percentage of the rural population with access to an all-weather road and monitoring achievements through targets based on this indicator. In addition, an Accessibility Differential Indicator has been developed to quantify the accessibility gap between the ten provinces with the lowest accessibility and the ten provinces with the highest accessibilities, with designated targets for improvements. Monitoring of improvements in the quality of transportation services is measured through, among others, an annual road survey. Analysis of costs and benefits, cost effectiveness and beneficiary assessments have provided useful information for the scale and scope of the project and intended beneficiaries while fiscal sustainability analysis has highlighted areas of potential budgetary gaps with regard to higher commitments for operation and maintenance. Preparation of proposals for road construction sub-projects prior to the launch of the project helped to ensure more rapid results; lessons learned from previous approaches provided a greater focus on opportunities for the use of local materials and labor-intensive works. Finally, pooling of donor and other resources through a single public entity with appropriate oversight which helps finance the implementation of the project is

helping to minimize duplication and lower transaction costs associated with engaging different actors and financial support from various sources.

At the country level, results-based strategies are also becoming more prevalent with targets and indicators for undertaking reform measures across a number of sectors. A recent review of progress in a World Bank Country Assistance Strategy for Tunisia, for example, surveys progress in achieving improvements in the business climate, improving competitiveness in agricultural sectors, improving financial intermediation and raising education access (Table 3). In addition, some municipalities are using

Table 3 Results Matrix for the World Bank Tunisia Country Assistance Strategy Evaluation: Select Indicators (2004–7)

Select Indicators	Baseline	Most Recent Data Value
Annual FDI inflows increase by 15–20% by 2006 and 50% by 2008	US\$ 650 million average for 2002–3	Plus 42% between 2002–2003 and 2006
Minimum capital requirement for starting a business reduced from 352% of per capita GDP in 2002 to below 50% by 2008	352% of GDP in 2002	Reduced to 28.3% in 2007
Customs clearance and technical control delays reduced from an average of 8 days in 2003 to 2 days in 2008	Average of 8 days in 2003	2 days in 2007
Increase in share of ICT sector in GDP by 2% in 2008	5% in 2003	8% in 2008
Average sewerage tariff/average cost increases to 80% in 2008	67.6% in 2002	61% in 2006
Container terminal of Rades privatized by 2006	—	—
4 million visitors to cultural sites by 2008	3 million in 2003	3,111,672 visitors in 2005.

Source: World Bank (2007). *Tunisia: Country Assistance Strategy Progress Report*. Washington DC.

performance information through development of service improvement action plans to secure donor funding for particular projects. In a number of developing countries more generally, rural communities are taking their own initiative to develop outcome performance indicators, citizen surveys and public awareness campaigns in order to obtain development assistance to purchase road and footbridge maintenance equipment needed to improve village roads.

For sectors in particular, the use of results-based frameworks is particularly critical since in the health sector, for example, it is difficult to link the amount spent on health and health outcomes (World Bank, 2004). In Yemen, for example, a health sector project by the World Bank will support capacity-building for establishment of a results-based monitoring system including the capacity to (i) evaluate integration of essential health care services on the quality of care and utilization of services and (ii) establish health system performance assessment mechanisms. It will also conduct a number of program evaluations including impact evaluation of the project as well as strengthening capacity at the Ministry of Public Health and Population to monitor performance against established targets both at the governorate and district levels.

Introducing a results-based framework into the health sector, for example, highlights general challenges of implementing M&E approaches. This process requires a clear definition of objectives and identifying the subset of indicators by which they will be assessed (Loevinsohn, 2008). A frequent problem in this regard is the collection of too many indicators; which can lead to a situation in which less data is actually being collected and all parties involved pay little attention to any of the indicators. Generally, fewer than 10 indicators can be sufficient. In collecting indicators, it is important to focus on measurable outputs and outcomes rather than inputs and processes. Outputs and outcomes are those achievements which, according to available scientific evidence, will likely lead to improved health status. Some input and process indicators may be useful to include because they are frequently

easier to measure and can be assessed more frequently, thus providing milestones along the road for outcomes or outputs. Such indicators should be independently verifiable with strong understanding of how data will be collected and assessed. In the health system, for example, this could include drawing on a number of sources including the health management information system, household surveys, health facility assessments and/or supervisory checklists. Indicators can be collected and independently verified through a data audit, and should also be defined as precisely as possible while targets should be set as broadly as possible (Table 4).

Table 4 Sample Performance Indicators and Targets In Primary Healthcare

Indicator	Baseline	Approximate Target	Means of measuring indicator
Number of consultations per year provided by the primary health care clinic and its outreach activities	0.3	1	Household survey (HHS) and Health management information system (HMIS)
Proportion of children aged 6 to 59 months receiving vitamin A supplement within last 6 months	36%	55%	HHS and HMIS
Score out of 100 on an index of quality of care as judged by a third party which includes provider knowledge and patient satisfaction	46	70	Health Facility Assessment
Improved equity: ratio of poorest to richest income quintiles (based on asset index) on number of consultations	0.42	0.60	HHS

Source: Loevinsohn, B. (2008), p. 99.

Including objectives related to equity and quality are critical and can be explicitly defined, such as the use of services by the poor (poorest two income quintiles) and/or coverage of services for those living in underserved geographic areas. Quality of care is also an issue and can be addressed in part, through specialized health facility surveys and benchmarking performance with the use of control groups.

TOOL FOR IMPROVED AID EFFECTIVENESS

One of the main challenges for improving effectiveness of development programs is to translate a results framework into an organization's own capacity to influence results and to justify its selection of performance measures. The level of influence of an organization is typically explained through intermediate results or the more concrete objectives an organization needs to achieve in the shorter term in order to contribute to results in the longer term. Intermediate results are important for showing plausible cause and effect linkages between services provided by the organization and higher-order outcomes. It is expected that while an agency would have some influence over intermediate results, it should have full control over how efficiently it delivers its own services. Accountability for performance needs to match the capacity to influence (Pierce and Di Francesco 2007).

To address this, the activities of a service group across departments or within a single entity can be linked with higher order objectives (Table 5). In the case of road safety, for example, the provision of road safety services such as community awareness programs, law enforcement and traffic control can be linked with targets for results indicators applying to one or more departments or agencies. A National Road Safety Action Plan (NRSAP) introduced in Iran in recent years, for example, has aimed to address the main causes of road accidents with a special focus on institutional development and improving monitoring and evaluation systems. The NRSAP aims to reduce accident deaths per 10,000 vehicles by 40% through a combination of measures

Table 5 A Bottom up Look at Results

Department/Agency Road Safety Services	Activities
Community Education	School visits, community awareness campaigns
Law Enforcement Patrols Traffic Control	Speed cameras, highway patrolling Crash attendance, peak flow control
Service Measures and Targets	Targets
1. Community Education: % primary students attending	i.e. 50%
2. Law Enforcement Patrols: road safety education classes expenditure per capita on road safety and patrols (efficiency measures should be read in conjunction with other indicators that show effectiveness)	i.e. US\$26.00
3. Traffic Control: average number of traffic infringement notices issue per patrol vehicle	
Results and Intermediate Result Indicators	Results Indicators
Road users obey laws and avoid dangerous behavior	1. Community Education: Road deaths per 100,000 people
Road users demonstrate an increased awareness of road rules and consequences of unsafe behavior	2. Law Enforcement Patrols: Traffic infringement notices issued/100,000 people
	3. Traffic Control: % people who indicate in last 12 months they have exceeded the speed limit by 10km/h
Longer term outcomes	
1. Road users demonstrate awareness of road rules and consequences of unsafe behavior	
2. Potential offenders perceive a high probability of being detected.	

(Continued)

Table 5 (Continued)

Government goals

Road users obey laws and avoid
dangerous behaviors that increase
the risks of accidents on the road

Source: Pierce and Di Francesco (2007). Results and Services Plans and Budget Reform in New South Wales. In Performance Budgeting: Linking Funding and Results. In Robinson (2007), pp. 259–263.

including traffic police deterrence of high risk road user behavior, public information campaigns coordinated with police enforcement activities, better road safety education programs and improved regulations and procedures for vehicle safety and driver training and testing.

At the project level, there is no substitute for sound cost-benefit analysis-which can serve as the basis for screening public investment proposals and developing a well-grounded results framework. Careful analysis of the relationships between the project being developed and the existing operations of relevant public entities and other projects under consideration can provide quantitative parameters for many intended and unintended outcomes. In particular, cost and benefit analysis can be developed and reviewed against actual existing activities and alternatives; thus incorporating issues such as (i) consideration of other alternatives, especially when reviewing replacement projects; (ii) review of underlying assumptions, including whether to continue with the existing operation in the first place; (iii) testing assumptions regarding potential benefits related to the degree of competition and government regulations; (iv) comparing “with” and “without” scenarios for costs and benefits of individual projects, and (v) assessing projects on a relative basis to determine the most desirable project among mutually-exclusive proposals (Baietti, 2005).

M&E FOR MARKET DEVELOPMENT: WIND POWER IN JORDAN

An interesting application of monitoring and performance indicators relates to the development of markets for renewable energy technology development. The Global Environment Facility (GEF) encompasses operational programs designed to promote energy efficiency and renewable energy in part, through catalyzing sustainable development of markets for renewable energy technologies. A recent GEF funded wind power project in Jordan, for example, aims to contribute to the Government of Jordan's goal to increase the share of renewable energy use to 7% of the energy mix by 2015. A component of the project is aimed at creating the framework for a sustainable wind power market. Key performance indicators include market penetration of on-grid renewable energy to at least 2% of total supply by the end of the project, reduced GHG emissions from electricity generation and market penetration through increased energy production from wind (% total electricity production) and lower costs of wind-generated electricity. Another element of the project is policy development, including the establishment of a sustainable financing mechanism for renewable energy. Physical indicators for market development in renewable energy systems more generally include installed capacity in renewable energy systems as well as investment volume in energy-efficient measures and sales volume and/or market share of high energy efficiency products (Martinot, 1998). Indicators for changes/developments in market structure might also include prices and costs of products and services, number of producers, dealers, service firms and others in the market, market shares of equipment produced according to renewable technology standards, performance ratings of existing installations such as wind farm capacity, financing flows from commercial and/or public sources and ratings of the commercial viability by financial institutions and energy service companies.

Program Evaluation: SME assistance, in Egypt

Program evaluation is a systematic and analytical assessment which addresses questions of why and how a development program produced certain outputs and outcomes. It attempts to analyze the impact of a program on expected and unexpected results and describe in an objective way, the factors contributing to the success or failure of a program. Program evaluation in particular, can be an effective tool for enhancing development effectiveness, particularly when it is conducted jointly with donors and clients.

A recent review of the Canadian International Development Agency (CIDA) SME programs in Egypt, for example, was conducted jointly with the Government of Egypt (GOE) with an aim to review results achieved, identify lessons learned from innovations of the program and identify challenges to be addressed in the remaining years of the program (CIDA, 2006). Programs covered *inter alia* provision of business support services to SMEs, a Women's Initiative Fund to promote enterprise development among low-income women and SME policy development. A number of lessons learned are typical of the challenges for improving program effectiveness in the MENA context. First, the approach had clear advantages in terms of promoting ownership through consultations with stakeholders to ensure relevant approaches based on local priorities and needs as well as helping to build a consensus on SME issues. Provision of informal and formal opportunities to bring groups from both government and civil society together to exchange new ideas and test innovations also helped to leverage the impact of the program well beyond its limited funding envelope. In the area of SME policy support, however, results were more tentative, given fragmented responsibilities and approaches to SME development across government entities and lack of coordination of activities. Supporting local efforts often meant supporting an individual agency's perspective as opposed to an overall government approach to the problem.

Second, improved information-sharing across donors did not necessarily lead to enhanced coordination in program design and

implementation, further compounded by the lack of clarity within the GOE regarding the direction for SME development. Inclusion of cross-cutting themes, namely gender equality, environment, institutional capacity-building and child protection was intended to address more strategic issues in SME development beyond the project focus as well as to gain a broader base of support within SME development. However the results were mixed. While the consultation process involved in gender equality, for example helped the project team to build linkages with other groups in Egypt, there was a lack of clarity on what was being achieved (objectives, outcomes) on the agenda of gender equality and in strategic areas more generally. This is a common problem in many donor agencies and programs. Inclusion of specific components and targets for these initiatives could have helped to address these issues.

Narrowly-focused programs with longer-term engagement and frequent monitoring can be a more useful approach than overloading single programs and projects with a host of strategic objectives which are not linked to project outputs and frequently not financed explicitly as part of a project's components. The challenge remains how to enhance impact from the project and program level to the national level. In the case of CIDA's SME program in Egypt, one beneficial element of the approach was to focus on institutions and capacity-building across multiple levels. While the program worked primarily at the governorate level it targeted groups (SMEs) directly as well as institutions providing services to SMEs, and ministries and institutions involved in SME policymaking. Linking practical experience at the local level with national policy development at the center proved to be effective for strengthening policies for SME development, achieved in this case to greater and lesser degrees. The project's One Stop Shop approach to facilitating business licenses and services was subsequently embedded in Egypt's SME Law. More generally, what seemed to be most effective about the program's approach was the nature of its qualitative and innovative interventions rather than the financial size of the program itself. A primary contribution was

a demonstration effect regarding the importance and potential of non-financial services of SMEs, which contributed to other donor as well as government support to providing support services to SMEs. An emphasis on capacity building of organizations to provide demand-driven services was also critical for making progress in this area as well as enhancing possibilities for financial sustainability (CIDA, 2006).

FROM IMPROVING AID EFFECTIVENESS TO EVIDENCE-BASED POLICY-MAKING

More broadly, the enhanced use of tools for improving the effectiveness of development assistance can also help to inform public policy decisions and promote more open debate based on careful and rigorous analysis using sound and transparent data. Evidence-based policymaking is rapidly becoming an important feature of the public policy landscape in many developing countries. For MENA countries in particular, it has the potential to increase transparency in policymaking by improving understanding of why decisions are made and identifying criteria used by decision-makers in framing and making policy choices. It can also be linked with more efficiency in the use of government resources and enhancing value for money. The alternatives to evidence-based policy-making include policy formulation on the basis of interests, corruption, political ideology, arbitrariness and anecdotal evidence (Scott, 2005). None of these is attractive from the vantage point of equity and efficiency. Evidence-based policymaking in contrast seeks to use statistics and quantitative analysis to (i) identify critical issues and objectives for policymakers; (ii) inform program design and policy choices; (iii) assist in forecasting the future; (iv) monitor policy implementation and (v) evaluate policy impact. There is a growing basis for evidence-based policy making in MENA countries, whether it is the use of population and survey data on gender inequalities linked with budgeting exercises in Morocco or the use of poverty mapping and household surveys to develop better-targeted poverty reduction programs in Egypt. The question is

how to apply such approaches more consistently over larger areas of policy-making and a larger share of public resources. In this regard, donors and the development community have a significant role to play in working with government officials and through government programs to build on such efforts. This process can be facilitated by forming joint teams and shared diagnosis of donor and/or government programs in terms of impact and effectiveness.

In the MENA context, the enhanced use of impact analysis can also provide a more thorough understanding of the transmission channels through which policy changes and economic growth create winners and losers. Such analysis may facilitate better targeting of social spending and risk mitigation as well as improve program design, implementation and sequencing issues. In the case of trade liberalization, for example, a better understanding of the impact of trade liberalization on changes in the prices of goods and labor returns at the household level can reveal significant differences in the distribution of costs and benefits of reforms *ex ante*. Linking household surveys with CGE models can provide powerful information on the effects of policy reforms across socioeconomic, demographic or geographic groups and also facilitate assessment of the impact of shocks on income and consumption. Who is most affected by public sector downsizing, for example? In addition to affecting the livelihood of displaced workers, there are additional impacts related to the degree to which particular geographical areas are affected, in addition to impacts on businesses that cater to or provide services to public agencies or state-owned enterprises. In countries such as Egypt, public sector downsizing has had a disproportionate effect on women, given the relatively higher labor force participation rate of women in the public as opposed to private sector. Estimates of the total welfare loss among women are on the order of 85% higher than losses among men (Diaz, 2006). Thus the impact of policy changes can have both predictable and unpredictable consequences on particular groups across society – which may be better understood and addressed *ex ante* rather than compensated *ex post*.

CHALLENGES FOR IMPROVING AID EFFECTIVENESS

Where enhanced use of tools for improving aid effectiveness have worked well, the outcomes have tended to be improved decision-making potential, better resource allocation and enhanced accountability. The big challenge in results-based approaches, for example, is not in measurement but in application.

A number of lessons from pilot approaches to introducing performance management suggests that caution in applying such approaches is warranted. These lessons include the observation that (i) in many cases, measuring the effects of marginal, annual program budget changes on performance is neither precise nor meaningful; (ii) while government and donor agencies attempt to move from output to outcome measures it is much more difficult to establish specific levels of those outcomes, particularly over short periods of time; (iii) establishing clear linkages between funding and outcomes will vary by the nature of the program and the number of external factors; (iv) delays in the availability of performance data can present a synchronization problem for decision-making or program budget formulation. Given these difficulties, a good starting point is to aim for a performance-oriented framework in which strategic goals are paired with related long term performance goals (outcomes) and annual performance goals (mainly outputs). At a minimum, resources can be aligned at the program level within this framework and agencies can be encouraged to align resources at the performance goal level (Koh, 2004).

From an organizational perspective, there are a number of questions which arise with regard to more widespread use of monitoring and evaluation and other tools for improving aid effectiveness. First, given the concerns outlined earlier with regard to underlying motivations and criteria in policymaking processes, where are the incentives to move towards wider use of such measures? Most public organizations tend to resist being held accountable for outcomes since among others, they are influenced by so many factors that are beyond their control. In this regard, one clear potential advantage, for example, is the attainment of greater

efficiency with less control. By allowing greater fungibility in the use of resources – for example, through the introduction of fungible appropriations – such approaches allow greater room for innovation and adjustments (Cheranchez, 2007). Performance-based approaches, in fact, provide government entities and program managers greater freedom to shift funds from one line item category to another in the face of unforeseen events (with adequate reporting) and subject to basic rules and fundamental laws.

Concerns for “verticalism” associated with tighter linkages between program outputs and inputs, and linking sector policy to national defined goals or targets are real. Local officials are wary of having performance at the local level rewarded or penalized based on their success in achieving national objectives and targets. Similarly, the practice of bundling government programs together in a way which reflects the preferences of underlying interests along with horizontal competition between these groups and public entities can further complicate efforts to build in a results focus. In many countries, this bundling of government programs achieves coalitions of interests necessary to move legislation forward and/or achieve short term political gains (Chevauchez, 2007). Thus, it would appear that there may be little incentive for careful, comparative evaluations of rival programs or the specification of precise operational priorities and targets in the policy-making and distributional bargaining processes. There are also concerns that greater information on the performance of programs and policies can lead to the reallocation of resources away from programs and ministries that do not meet targets. This can be complicated if an underlying factor of poor performance is insufficient funding to begin with. However, sorting out the underlying factors for poor performance in fact, requires more information about the relationship between inputs, outputs and outcomes, taking into account external and internal factors that also influence performance. Budget decisions are always influenced by non-performance concerns related to public priorities, unmet needs and equity concerns; all of which need to factor into evidence-based policy making and results-based management.

Integration of performance information however, does not have to be viewed as being all or nothing; information about results clearly represents one source of information for use in planning and decision-making, including decisions about future resource allocations. Making available at least some information on performance may add a greater degree of confidence and transparency to the decision-making processes. At the very least, it can raise questions that should be considered or explored through other means (Koh, 2004).

The political economy context of development policy and programs characteristic of the MENA region pose additional challenges. In particular, high levels of government intervention tend to create a bias toward regulatory and administrative approaches to solving development problems and a multiplicity of objectives is frequently pursued using a small number of policy instruments – the proverbial instrument-target problem. At the project and sector levels, progress in project evaluation and programming of public investment is particularly critical. Assistance and training in the area of social evaluation, investment programming and medium terms expenditure planning together with the wider use of impact analysis and indicators for performance measurement would have significant potential for enhancing government ownership and effectiveness in managing development programs. In the case of the Abu Dhabi Vision 2030, the process of selecting priority areas for social and economic development, with associated targets and monitoring indicators has among others; helped to focus the efforts of both public and private sectors around achieving a well defined set of development outcomes.

CONCLUSION

From the perspective of implementing development interventions, questions of “what” are as important as questions of “how”. For public programs in particular and development assistance, the achievement of impact is complicated by a host of factors. First,

external factors tend to affect the impact of government programs. The effectiveness of the education system as a whole, for example, will tend to be affected by the quality of social policies as well as by the regulatory regime imposed on schools. Second, aid effectiveness tends to be as good as government effectiveness overall, given that governments are the primary recipients of official aid flows. All of this raises the difficulty of and at the same time, the importance of developing better mechanisms for linking development programs and assistance to measures of real impact. Viewing development assistance as the provision of integrated service “packages” linked to client groups, together with regular monitoring of progress on a core set of indicators and outcomes is one approach to improve the effectiveness of both government and donor assistance. Closing gaps between results and measures of costs and resource allocation over time can also help to improve the transparency of program allocations and policies while enhancing accountability and efficiency on the part of recipients. More generally, policymakers may benefit from a broader view of the economy as a whole, as a continuum of development projects. Government and official aid programs would thus seek to make fuller use of existing capacity by starting with productive activity and working up more generally to address issues of externality and market failure as opposed to the other way around (Ruhashyankiko, 2005). In economies with high levels of government intervention, less government intervention and higher quality interventions can be a more direct route to growth than trying to raise the efficiency of vast numbers of government programs and commitments. There is no single blueprint or ideal approach for addressing all of the development challenges surveyed in this book. Much will depend on the extent to which policymakers in the region use a judicious combination of regulation market pricing, public engagement and encourage the creation of new market opportunities for individual agents to undertake activities and risks that generate social benefits above private returns, without simultaneously creating additional distortions.

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Pathways to Future Prosperity

In the post-WWII period through the 1980s and 1990s, MENA economies experienced periods of growth acceleration and generally long term declining productivity. Much of this had to do with development policy choices – and the extent to which external factors, intertwined with public and private interests and institutional rigidities, helped to shape policy outcomes. In many developing regions, the post-WWII era was generally characterized by relatively high levels of interventionism and protectionism and the growth of social spending and government. The MENA region was no exception. Where it remains an exception today, relative to East Asian economies, for example, is in continued high levels of government intervention through implicit or explicit employment guarantees, subsidies and public credit allocation as well as maintaining a considerable government stake in production and distribution. This has been linked with a certain interrelationship between limited scalability in the framework of productive political and social relations, rising fiscal commitments and weak productivity growth.

By the latter half of the nineteenth century, the MENA region had begun to globalize rapidly through expansion of commodity exports to Europe, enhanced linkages with European business cycles and growth in national product and population. Coastal cities, merchants and landowners tended to benefit relative to the population at large. At the same time, rising fiscal vulnerability and indebtedness together with weak central government control, contributed to growing political interference by European creditors,

fueling the beginnings of nationalist sentiments. A host of administrative reforms was launched to raise agricultural productivity and government revenues based on the agricultural surplus. However, as reforms underway in nineteenth century Egypt suggested, using price controls to achieve particular political and social outcomes and incorporating select private interests into existing government monopolies can also create conflicting objectives, opposition from other groups and unpredictable outcomes, serving to heighten vulnerability to outside pressure for fiscal reform.

The period before and after the two World Wars was influenced by declining commodity prices, a frugal colonial administration and rising indebtedness. In the 1950s and 1960s, newly-independent states inherited mixed economies, fragmented infrastructure and very low levels of human capital. Development policy choices tipped the balance towards national interests and the concerns of the “interior” together with public sector interventionism and protectionism. Rapid expansion in the 1960s and 1970s coincided with generally favorable “windfalls” in the form of higher oil prices, contributing to rapid increases in spending and investment in infrastructure and human capital. Improvements in living conditions and welfare were unprecedented. By the latter half of the 1970s, however, the model was under strain, particularly in non-oil exporting countries. A policy preference for imports over exports and government ownership over private entrepreneurship and investment contributed to rapid increases in public spending, growing internal and external imbalances and declining productivity. High rates of population growth, rising incomes and the growing demand for public services also played a role. There was a growing need to reconcile the outcomes of a largely oil-financed state-led growth mode with underlying social political, and production constraints. Commitments to maintain high levels of employment and protection for workers in the formal sector contributed to both labor market segmentation including unskilled workers while opening up access to income-earning opportunities for other groups including women, in some cases, temporarily.

By the 1980s and 1990s, a less favorable global economy, combined with diminishing returns to government-led growth and trade protection contributed to sustained adjustment in many developing regions including most notably East Asian economies. The result was a concerted effort to liberalize domestic and international trade with spectacular gains in productivity and real wages. In the MENA region, on the other hand, large public sectors and protectionism generally prevailed and in some cases increased, despite growing pressure on fiscal and external balances. Economic adjustment nevertheless occurred – in the form of declining total factor productivity and diminishing shares of world trade, real wage declines and rising unemployment, particularly among youth. Across-the-board subsidies and high levels of social spending helped to mitigate the effects of declining living standards. Episodes of liberalization tended to be more opportunistic than systemic; the unfinished agenda of medium-term adjustment in trade policy, privatization and the microeconomy together with financial and labor markets remained a challenge.

Reform programs introduced across the region to varying degrees improved fiscal and external balances in part, through lower investment while generally preserving barriers to entry and protection in select industries and markets. At the same time, public sector workers with a secondary education and high levels of remuneration relative to private sector counterparts resisted pressures for privatization. Private capital, market forces and global technology were mobilized to a greater extent, generally working alongside a large public sector. The results of this bargain were generally disappointing; private investment in labor-intensive, tradable sectors remained low, competitiveness waned and unemployment continued to rise. This created additional pressures to maintain high public employment levels and subsidies to sustain living standards. An uneven process of adjustment to the economic downturn across protected and unprotected segments of the economy also exacerbated real wage declines and disproportionately affected unskilled workers, youth, potential entrepreneurs and new exporters, women, smaller households and firms.

In the 2000s, a new page has turned in the history of MENA economies. Rising levels of investment, together with accelerated efforts at privatization, tariff reductions and streamlining firm entry in an environment of higher liquidity, have had favorable effects on growth and per capita income. Enhanced application of monitoring and evaluation mechanisms has also worked to improve the quality and focus of public spending more generally. The challenge going forward will be to link growing pools of financial capital and talented youth with a new growth paradigm based on stronger domestic production potential, and enhanced scalability and skill intensity.

Priorities for the future include continued progress on fiscal spending control and shrinking the size of government activity and protection, reducing barriers to entry and promoting competition in the domestic market. Fuller, more skill-intensive engagement with global markets, well-functioning education and health systems, together with an efficient social safety net are also indispensable. Such policy measures are equally important for helping the economy to manage unexpected shocks and downturns. The lessons of post-conflict development and post-disaster recovery suggest that vulnerability is not static and is linked with the interaction of external phenomena as well as the evolving state of economy and society. Thus, efforts to manage shocks and economic downturns would benefit from policy measures which take into account whether domestic activity and opportunity is expanding or contracting and at the same time do not heighten future vulnerability in part, by unsustainable increases in the scale of government intervention. There is also a risk that too much intervention can dampen underlying, self-correcting factors to regain efficiency and dynamism. Well-functioning commodity, labor and capital markets are critical for helping economies, households and firms cope with adjustments to a new growth trajectory. Built-in and transparent indicators and performance targets can also work to clarify the costs and benefits of policy interventions as well as guide policymakers in determining whether a policy intervention is succeeding or failing.

Expansive internal and external controls, select political bargains and blanket government guarantees – both implicit and explicit – can create a high threshold for new entry and dynamism, institutional fragmentation and diffused accountability for results, with at times, perverse incentives for private investors. Moreover, theorists point out that when governments have a large stake in the game, the public interest can be defined too broadly and by fiscal necessity, and political expediency, implemented too narrowly. For MENA economies, future development policy efforts would thus benefit from government activity which works in conjunction with market forces to a greater extent but with appropriate levels of due diligence, places itself strategically within an emerging global order and promotes opportunities for social, political and economic development evenly across unprotected and protected groups and interests.

Studies of transition in other developing regions suggest that episodes of sustained liberalization usually emerge from non-linear, highly uncertain, and potentially reversible processes in which there is consolidation around a central space where government institutions are located. This prevents some actors from maximizing interests but meets some basic needs and avoids worst case scenarios. This central space and the rules for occupying it can change as a core of new assets emerge and existing and new actors take on modified roles. What is crucial is the extent to which existing expectations are adjusted and compromises are reached at critical junctures. Energies focused on maintaining barriers to entry and defeating opponents can be re-directed toward building a common future with broad ownership stakes. Institutions and actors respond to these changing political signals and underlying shifts in production and social structures can commence. A central challenge remains, how to integrate the process whereby a community which was previously saving 4 to 5 percent of its income or less converts itself into an economy where voluntary saving is about 12 to 15 percent of national income (Lewis, 1954).

In striving to attain its full development potential, the MENA countries have much to fall back on and much to hope for, given the

region's dynamic and youthful population. In *Mustaqbil-al-thaqafa fi Misr* (The Future Culture of Egypt) Taha Husayn (1889–1973), the Egyptian writer, renowned for his ability to express the problems and hopes of his generation, describes the importance of holding in balance three essential elements: the distinctive Egyptian culture which persists throughout history, the Arab element including above all, the classical Arab language and the elements brought in from outside at different periods. As he describes it:

Three elements have formed the literary spirit of Egypt... the first of them is the purely Egyptian element which we have inherited from the ancient Egyptians... and which we have drawn perpetually from the land and sky of Egypt, from its Nile and its desert... The second element is the Arab element which came to us through its language and religion and civilization.... As for the third element it is the foreign element which has always influenced Egyptian life and will always do so. It is what has come to Egypt from its contacts with civilized peoples in the east and the west.... I should like Egyptian education to be firmly based on a certain harmony between these three elements. (Hourani, 1991).

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