CHAPTER 6

Microeconomics of Growth in MENA: The Role of Households[☆]

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Abstract

This paper discusses whether households in the Middle East and North Africa (MENA) allocate their resources efficiently and in such a way as to promote growth. It focuses on the role of urban households because they form the majority and they are the main source of growth in human capital. I argue that an efficient and pro-growth allocation of household resources may not be feasible because of constraints that households face in their decisions to supply labor, and to accumulate human and physical capital. I identify two aspects of the environment in which MENA households operate as critical to conditioning their behavior: the large role of the state in the economy, which distorts the incentives in the education and labor markets, and social norms regarding gender, which influence the division of labor at home and in the economy. Patriarchal gender norms limit women's participation outside the home, resulting in higher fertility and lower labor force participation of women in MENA compared to countries with similar income. The strong role of the state affects incentives in three key markets for credit, education, and labor. Powerful central governments have inhibited the development of modern financial markets by preventing the emergence of private banking and an independent judiciary, which is critical for the enforcement of financial contracts. Distorted financial markets affect household savings by keeping interest rates low and often negative, and thereby discourage accumulation of financial assets relative to unproductive assets such as land. Of greater importance is state intervention in

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the markets for education and labor, which determine the amount and type of human capital the MENA households accumulate. I argue that the prevalence of public-sector employment and the regulation of private employment have increased private returns to formal schooling over and above their social return, while at the same time reduced private returns to other types of productive skills below their social return. As a result, households invest in an inefficient portfolio of human capital with dire consequences for long-run growth.

Keywords: economic growth, middle east, household behavior, human capital, labor markets

JEL classifications: D13, J22, J24, O12, O15

1. Introduction

As the longest standing unit of social organization, the family is also recognized as an important agent of economic growth. Households make important decisions that affect production and accumulation of physical and human capital. Increased recognition of this fact in economics has led to a surge in theoretical and empirical models of household behavior in the last two decades. Manski (2000) considers the increased emphasis on households as one of the major recent innovations in neoclassical economics. A recent microeconomic view of growth in Sub-Saharan Africa by Collier and Gunning (1999) has produced important insights.[1] However, research on economic growth in the Middle East and North Africa (MENA) region has largely ignored the role of households, instead focusing on actions taken by governments. Historically, the region has been ruled by strong and dominant central governments, and often with negative effects on economic growth (Issawi, 1995). More recently, in the 20th century, socialist ideology and availability of oil revenues have helped maintain the image, if not the reality, of the all-powerful state. Nevertheless, we must understand the behavior of the micro units – households and firms – to reach a deeper understanding of aggregate outcomes, including the consequences of actions taken by powerful states.

In this paper I examine the role of households in economic growth of MENA. I focus on the incentives and constraints faced by households that help or hinder their role in fostering growth. The constraints I consider are those imposed by the two institutions that are not peculiar to the region, but have greater influence in MENA than elsewhere: the importance of central

[1] For a review of similar applications of microeconomics to economic growth around the world, see Guriev and Salehi-Isfahani (2003).

governments in economic life and social norms regarding gender. I show how these institutions define the incentives and the constraints that shape household behavior pertaining to growth. The strong presence of the state operates primarily in the form of extensive interventions in the markets for education and labor that create large gaps between private and social returns to human capital, leading individuals and households to invest more in formal education and diplomas than productive human capital. Social attitudes toward gender roles affect household behavior primarily by affecting the allocation of women's time between home production and market work. Women are discouraged from engaging in market work, thereby limiting the supply of labor and human capital to the economy and reducing incentives for investment in the education of girls. Limits on women's access to education and the labor market in turn promote population growth, reduce the education of the next generation, and thereby retard economic growth.

Throughout the paper I rely on the theory of household economics to guide the discussion, and on the rather limited body of empirical studies to relate the theory to the experience of individual countries in the Middle East. The most useful among the latter are those that use survey data. Learning from micro data is the most effective way to learn about household behavior in specific countries. Unfortunately, such data are only available for a handful of countries and researchers have only recently started to use them in micro econometric studies of households and markets in the Middle East. In the Appendix to this paper I provide a partial list of the micro data sets that exist for the MENA region, some of which are publicly available.

1.1. The role of urban households

I limit my discussion to the role of urban households in part to keep the discussion more focused, but more importantly, because urban households have greater influence on human capital accumulation and modern growth. Rural and urban households perform many similar economic functions – procreation, education, and labor supply – but they differ in important ways. Historically, the arid climate and the feudal system of surplus extraction have created urban centers that are quite distinct from rural communities. Rural and urban areas remain geographically and economically quite distinct even today. Because rural households operate both as firms and families, a proper treatment of the role of rural households in economic growth would require the widening of our scope considerably and the discussion of the role of agriculture in economic growth. It is best that the role of agriculture is treated separately. Furthermore, social norms interact with family decisions differently in rural areas because in rural settings the distinction between private and public space is more blurred, so rural women face less conflict between market-related activity and housework than urban women.

Table 1. The importance of urban households in MENA

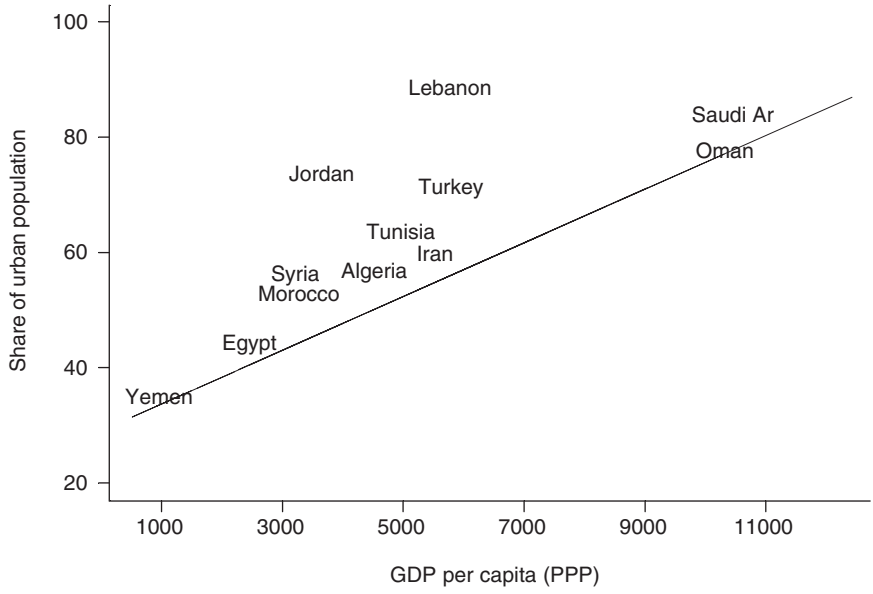
Country	Urban Population as % of Total		Labor Force in Agriculture (%)	
	1970	2002	1970	1990
Algeria	39.5	58.3	47.4	26.1
Egypt	42.2	42.8	51.8	40.3
Iran	41.9	65.4	43.8	38.8
Iraq	56.2	67.5	47.1	16.1
Jordan	50.5	79.0	27.8	15.3
Kuwait	77.8	96.2	1.8	1.2
Lebanon	59.4	90.3	19.8	7.3
Libya	45.3	88.2	28.9	10.9
Morocco	34.5	56.7	57.6	44.7
Oman	11.4	77.0	56.9	44.5
Saudi Arabia	48.7	87.1	64.2	19.2
Syria	43.3	52.1	50.2	33.2
Tunisia	44.5	66.8	41.9	28.1
Turkey	38.4		70.7	53.1
UAE	57.2	87.6	8.8	7.8
Yemen, republic	13.3	25.3	70.4	61.0
MENA	41.5	58.0	49.8	34.8
East Asia and Pacific	18.5	38.2	76.4	68.9
South Asia	18.7	28.0	71.1	63.4
Sub-Saharan Africa	18.7	33.1	78.5	67.5
LAC	57.4	76.4	41.0	25.5
Middle income countries	33.2	52.6	61.1	52.8

Source: World Bank, (2004a).

Fortunately, focusing on urban households only is less of a limitation in MENA than in the other regions because, next to Latin America and the Caribbean (LAC), the MENA countries are the most urbanized in the developing world (see Table 1). The degree of urbanization is even higher if we control for income per capita. Figure 1 shows that in the late 1990s all the MENA countries were at or above the (linear) conditional mean rate of urbanization.[2] For the greater part of the 20th century, the MENA countries have had a relatively high proportion of their population living in urban areas. In 1970 the share of the urban population in the MENA was 41%, compared to 19% each for South and East Asia; in 2002 the MENA share had increased to 58%, compared to 28% and 38% in South and East Asia, respectively. Except in Egypt and Yemen, in all the MENA countries the urban population exceeded the rural population (Table 1). Given that the average rural household is larger,

[2] The regression in Figure 1 (as well as in other similar figures) includes observations on all low- and middle-income countries. All data are from *World Bank Development Indicators*, 2004.

Figure 1. Urbanization in the MENA countries



urban households must outnumber rural households in most MENA countries by a good margin. The share of the labor force in agriculture also lower in the MENA countries in 1990 (data for later years are sparsely available) compared to the other developing regions except Latin America and the Caribbean (Table 1), which further indicates the significance of the economic role of urban households in MENA.

Urban areas in MENA have historically been important centers of public administration, trade, and surplus extraction. Until the second half of the 20th century, those living in urban areas were not important as direct producers, but their positions as managers of the agricultural surplus placed them at the helm in capital accumulation and growth. Their decisions as landlords, tax farmers, and government bureaucrats affected how much was produced and collected in taxes and how the proceeds were used in the local economy as well as in international trade. The role of urban dwellers as managers of the agricultural surplus diminished as major land reform programs in the 1960s – notably, in Egypt, Iran, Iraq, and Syria – weakened the traditional land tenure systems and shifted the control of agricultural production to rural households.

In subsequent decades, with industrialization and globalization, the significance of human capital in production increased, and with it the role of urban households as its main producer. Finally, the dramatic increase in the flow of foreign exchange to the region after the oil price revolution of 1973 further tilted the balance away from the rural to the urban households. Although all

MENA countries did not benefit to the same extent from the oil price increase, labor migration to oil-rich countries and the resulting remittances spread the foreign exchange increase widely across the region. Foreign exchange inflow enabled more import of food and thereby diminished the role of rural households as the agents of economic growth. Thus, in the modern period, although urban households have lost their traditional roles, as producers and suppliers of human capital they remain at the center of the growth process.

2. *Economic and social environment*

Many aspects of the social and economic environment affect growth. My interest in this paper is in those aspects that constrain and distort household choices. I further narrow my attention to those that are exogenous to household choices (such as geography) because only these can be meaningfully said to limit choices. Some facets of the environment that are commonly believed to affect choice, such as low education, do not fit the criteria because they are themselves the result of household actions. Besides geography, two key features of the MENA environment that I believe fit the requirement of exogeneity are the strong role of the state in the economy and the social norms regarding gender. I argue that state interventions in the markets for education and labor are the greatest single source of distortion for household decisions. They distort incentives for investing in human capital and adversely affect growth. The state funds and directly provides much of the education and acts as intermediary in the relation between workers and employers. State interventions in the labor market reduce flexibility in wage setting and turnover, which not only reduce incentives to work and cause misallocation of workers to jobs (static misallocation), but also result in inefficient accumulation of human capital (dynamic misallocation).[3]

Social gender norms, too, affect growth by influencing static and dynamic allocations. Gender discrimination in the household and in the work place affects the allocation of time within the household by limiting women's access to market work outside the home. Social gender norms that govern the division of labor in the household can be considered exogenous to household decisions, and therefore constrain those decisions, to the extent that they have developed in an earlier period to serve a purpose which no longer exists. In a modern economy, restricting women to private spaces may inhibit economic growth by encouraging high fertility, reducing female labor supply, and lowering returns to female education. In this sense, as a constraint on household decisions, norms act in the same way as public sector domination of employment which distorts returns to human capital.

[3] Salehi-Isfahani and Murphy (2004).

2.1. Natural endowments and climate

The climate in MENA is arid and semi-arid. Scant and unreliable rainfall has forced settlers in most of the region to develop vast systems of irrigation based on rivers and underground aquifers. In 1997, about 31% of the MENA cropland was irrigated, compared to 3% in Sub-Saharan Africa, 21% in Latin America, and 38% in South Asia. The low proportion of irrigated land in Africa is one of the reasons why the African rural households face high risks, which Collier and Gunning (1999) argue has at the micro level caused poor economic growth. Irrigation is an important part of the response of farmers to the risky environment in the region. In some MENA countries where rainfed cultivation still contributes a large share of agricultural production, as in Syria, rural households must cope with a high degree of risk owing to variability of rainfall. In the more densely populated parts of the region, such as the banks of the Nile, irrigation is the only method of cultivation, and helps attenuate weather risks almost entirely.

In the last half a century, another geographic factor, the region's rich reserves of hydrocarbons have exerted an influence at par with the climate. With two-thirds of the world's oil and one-third of natural gas resources the economies of the region were to varying degrees affected by the rising price of crude oil in the second half of the 20th century. The oil wealth has greatly affected the course of economic growth by raising real wages faster than productivity and changing relative prices in favor of non-traded sectors through the well-known Dutch Disease phenomenon (Gelb, 1988).

2.2. Trade shocks

The largest trade shocks to the region result from fluctuations in the price of oil. A group of nine oil exporters in the region is directly affected by oil price fluctuations, and the rest through worker remittances and direct aid (El-Erian *et al.*, 1996). Oil prices quadrupled in 1973 and jumped again by a factor of three in 1979–1980, after which they started a gradual decline until 1986 when they collapsed, wiping out all but 10% of the gains made during the two previous price hikes. Since 1986 oil price fluctuations have continued (high in 1990–1991, low in 1998, and high again in 2003–2005), resembling price fluctuations for other primary commodities, with the obvious difference of the role played by political factors. There is no evidence available regarding how the variability in oil incomes enters household decision making. Governments, who are arguably better informed about oil price shocks than households, have so far failed to smooth over their own expenditures. Kuwait is the only country that systematically excludes a part of its oil revenues from current use by placing it in a fund for future generations. Several other countries, such as Iran, have oil stabilization funds that help smooth consumption over temporary price fluctuations, but not over generations (Davis *et al.*, 2001).

2.3. Institutional environment

2.3.1. Role of state

Central authorities have historically played a significant role in the economic life of the MENA societies. The reasons for the strong role of the state have changed over time and differ from country to country (Anderson, 1987). In the past the state dominated economic life because of its role as the manager of water resources, extractor of surplus, and protector of agricultural communities.[4] The role of Islam in the promotion of a patrimonial system may also have contributed to the rise of the state (Bill and Leiden, 1974). In the recent past, socialist ideology following independence (Iraq, Syria, and Tunisia), rise of nationalism (Egypt and Iran), and oil revenues that accrue to the state (Saudi Arabia, Iran, Kuwait, and other Gulf states), have helped the state continue its dominant role to date (Mahdavy, 1970, and Richards and Waterbury, 1996).

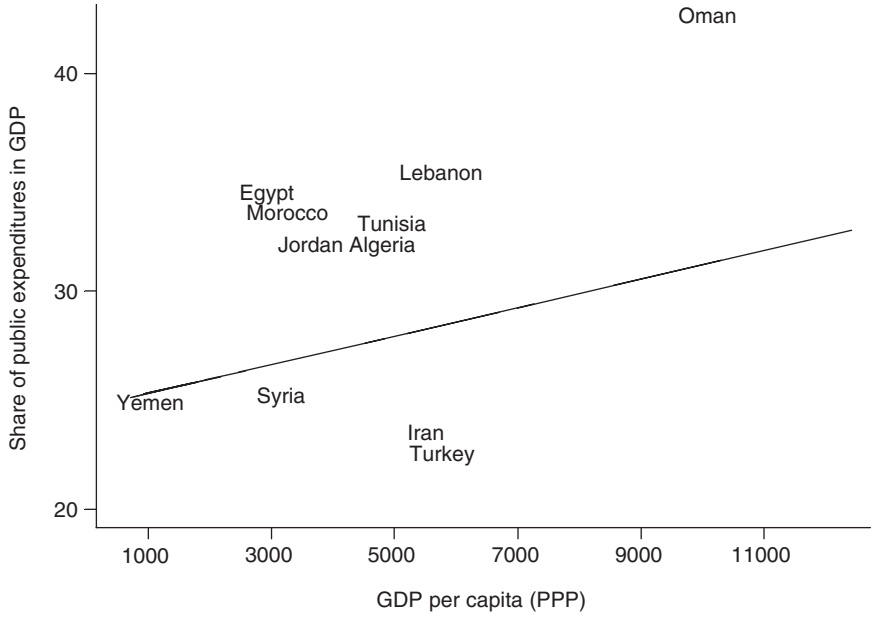
Although the state has contributed to economic growth by providing infrastructure and other public goods, it has also inhibited micro units – firms and households – from playing a more positive role in economic growth. For households state intervention in the markets for capital and labor has been the main inhibitor. Specifically, as we see below, the rise of public sector employment and interventions that reduced the flexibility of the labor market have distorted individual incentives for lending to firms and investments in human capital.

There is a large literature in economics that shows labor market regulations affect employment and growth, but they do not directly relate to the role played by households. Lazear (1990) shows how regulation in the form of severance pay hurts employment; Besley and Burgess (2004) show how manufacturing growth in Indian states with stricter labor regulation has lagged behind those with less regulation; and Botero *et al.* (2003) show that more regulation reduces labor force participation.

The large size of the public sector in MENA can be deduced from the share of public expenditures in GDP. In Figure 2, where this ratio is depicted for individual countries relative to a regression line for low and middle income countries, with the exception of Iran, Syria, Turkey, and Yemen, all MENA countries are above the regression line. The public sector in Iran is perhaps one of the largest in MENA, but the heavy underpricing of foreign exchange and energy products is responsible for the relatively small share of public expenditures reported in the World Bank data. Esfahani and Taheripour (2002) put the share of government expenditures closer to 50% of the GDP, which would make Iran an outlier in the other direction. State expenditures as

[4] The terms "Oriental Despotism" and "Asiatic Mode of Production" have been used to describe the economic systems at the helm of which stood the state. For an application to 18th century Iran, see Ashraf (1970) and Abrahamian (1974).

Figure 2. Size of government in the MENA countries



percentage of GDP range from a low of about 25% in Turkey to 35% for the North African countries, to 50% in Kuwait and Iran, compared to 12% in East Asia and 25% in Latin America (Table 2).

Not only are public expenditures high in relation to GDP, the share of wages and salaries of public employees in the GDP is also high relative to the other developing regions. Wages and salaries comprise about one-third of public expenditures in MENA compared to one-fourth in East Asia and Latin America (Table 2). The share of public sector wages and salaries in GDP, which ranges from 6.0% in Turkey to 15.4% in Jordan, is high compared to 2.6% for East Asia. Except for Turkey, the share of government wages and salaries in the GDP of MENA countries lies above the conditional mean represented by the regression line (Figure 3).

The heavy burden of public employment is correlated with overall intervention in the labor market. To start with, the state is by far the largest employer. If we consider public employment (civil service and state enterprises), the extent of the impact of public employment on the labor markets becomes evident. In 1990, public employment as percentage of total employment ranged from 21% in Morocco to 34% in Egypt, 44% in Jordan, 57% in Algeria, and 85% among the nationals in Kuwait (Said, 2001; Shaban *et al*., 2001). Nearly one out of every three Arabs working outside agriculture is a public employee, compared to one out of five in the Organization for Economic Cooperation and

Table 2. Size of government

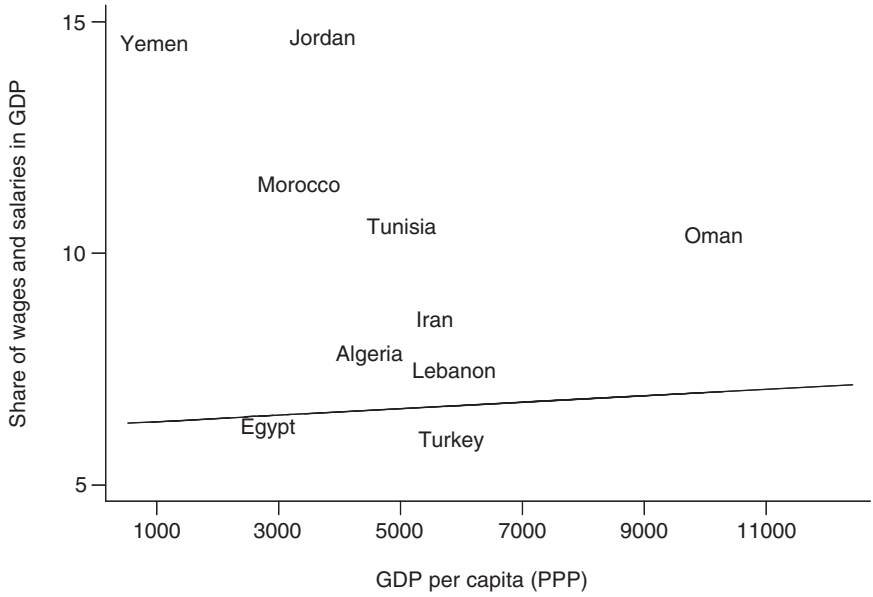
Country	Government Wages and Salaries as % of GDP		Public Expenditures as % of GDP	
	1977	1997	1977	1997
Algeria	–	8.30	–	31.8
Egypt	9.52	6.3	46.9	34.2
Iran	11.27	9.16	45.8	23.2
Iraq	–	–	–	–
Jordan	–	15.43	44.8	35.0
Kuwait	6.53	13.07	31.4	41.5
Lebanon	–	8.68	–	37.9
Libya	–	–	–	–
Morocco	10.44	11.34		–
Oman	4.95	10.23	40.2	–
Saudi Arabia		–	52.6	–
Syria	7.30	–	49.4	23.8
Tunisia	9.52	10.33	33.3	32.6
Turkey	5.98	6.08	20.9	26.9
UAE	–	4.15	8.0	11.8
Yemen, Republic	–	11.41	–	39.2
MENA	9.11	7.96	38.09	27.89
East Asia and Pacific	–	2.62	–	11.6
South Asia	2.11	–	12.7	17.7
Sub-Saharan Africa	7.08	–	23.0	–
LAC	6.09	–	19.1	–
Middle income	–	–	–	–

Source: World Bank, (2004a).

Development (OECD) countries (Said, 2001). Growth in public employment has come from access to oil revenues (Iran, Kuwait, Saudi Arabia, and UAE), job guarantees (Egypt and Morocco), and the government acting as the policy of employer of last resort during recessions (Algeria, Jordan, and Tunisia).

As the largest provider of formal employment and regulator of private sector employment, governments in MENA have radically affected the labor market and the economic environment. Public sector employment is characterized by low turnover and emphasis on formal education, especially high school and university degrees (Said, 2005). The share of state in the employment of the educated workers is even higher. In Iran, in 2001, 58% of men in the public sector had upper secondary education or more, compared to 20% in the private sector; for women, 75% in the public sector compared to 35% in the private sector (Salehi-Isfahani, 2005). The state is thus in a position to influence the structure of rewards to education out of proportion to its share in total employment. By emphasizing diplomas at the expense of productive skills, the state helps reinforce a system of education based on memorization and testing rather than acquisition of productive skills.

Figure 3. Share of government wages and salaries in the MENA countries



In addition to their role as the largest employer, most MENA states have further reduced the flexibility of the labor market through regulation of pay and rules for job termination. According to the Heritage Foundation index of wage and price flexibility, the MENA countries represented in the sample, with the exception of Jordan, Morocco, and Tunisia, had a labor market rigidity score above the median.[5] In Iran, which has a high score of 4 (only four countries in the sample had a higher score), the government sets the pay scales for private-sector jobs based on formal schooling, and the 1990 Labor Law places the burden of proof on the employers who lay off low-productivity workers (Salehi-Isfahani, 1999, 2000, 2002). In 2002, the Labor Law was amended to exempt firms with five or fewer workers. Egypt also has pay scales based on education and a system of compulsory arbitration between the employer and employees (Assaad, 1997; Said, 2001). According to Labor Law 137 (1981), all prospective employees must register at a district labor office where government officials evaluate skills and note ratings on an "employment certificate." Upon being hired or terminated, workers must notify the labor office of their change of status. In the event a firm is acquired by another, the obligation to continue employment falls to the new owner. Furthermore, the state has successfully used

[5] Heritage Foundation, *2002 Index of Economic Freedom*. Washington, DC and New York, NY: Heritage Foundation and Wall Street Journal.

the hierarchical union organization under its control to influence the employment relation in private enterprises (Posusney, 1997). In most other MENA countries the government places restrictions on firing of employees (Said, 2001). Egypt and Morocco adopted policies of job guarantees for educated workers in an effort to increase incentives for education (Assaad, 1997; Shaban, *et al.*, 2001). Recognizing the distortions that these policies have on incentives in the markets for education and labor, both Egypt and Morocco have in the 1990s backed away from their employment guarantee obligations. In 1990, Morocco provided exemptions from the stringent employment regulations that allowed businesses to hire, for up to 18 months, skilled workers without restrictions on wages and benefits or any obligation to retain them (Said, 2001).

The effect of state regulation of the labor market on human capital accumulation is exacerbated by its direct role in its production of education. The educational system in MENA is under heavy influence from the state, both in setting the curriculum and in financing of education. Except in Lebanon, where private schooling at all levels predominates, in all the MENA countries the state is the main provider of education. In 1992, only 7.2% of primary and 6.2% of secondary students in Arab countries were enrolled in private schools, compared to 11.7% and 41% for the upper middle-income economies (Barnett *et al.*, 1998). In Iran, in the mid-1990s the same figures were 1 and 2% only (World Bank, 1997a). Psacharopoulos and Nguyen (1997) show that in Arab countries private spending was only 10% of the total spending on education compared to 50% for East Asia and the Pacific.

The trend is for more privatization of education in MENA, but the environment for human capital accumulation may not be significantly affected by private provision of education as long as the labor markets remain inflexible. To the extent that educational institutions take their cues from the labor market, private schools may not behave very differently from public schools (Salehi-Isfahani and Murphy, 2004). In Iran, private schools only outperform public schools in test taking to prepare them for entry into universities, not in offering a more varied curriculum. After all, for parents and students success is still defined as passing the university entrance examinations and landing a job in a labor market that rewards diplomas rather than productive skills.

2.3.2. Social norms

It is commonplace to speak of the Middle Eastern societies as patriarchal and characterize their gender relations as less equal compared to other developing regions[6]. The veil has come to symbolize separation, and to many, the subordination of women in social and economic life in the MENA societies.

[6] There is a vast literature on this subject. For an excellent discussion of gender norms in the Middle East as it pertains to work and education, see World Bank (2004b).

Although the origins of these gender relations can be traced to pre-Islamic Middle East (Nashat, 1999), Islamic laws and edicts may have made them more resilient to change long after their purpose had disappeared, hence the designation of social gender norms as a constraint on household actions in the modern Middle East.

Although the importance of social norms in social outcomes is generally acknowledged, little is known about the precise way in which they influence micro decisions. Mason (1997) and McDonald (2000) divide gender relations into on family decisions into institutional stratification at the macro level and gender roles at the micro (household) level. Patriarchal gender relations exist at both levels in the MENA countries, in personal attitudes toward female education and work as well as at the level of social institutions (Kazemi, 2000). The state has often played an important role in promoting and enforcing social norms. In several countries gender norms have been "codified in law, especially in the region's personal status or family laws, such as those requiring women to obtain the permission of fathers or husbands to gain employment, to seek a loan, to start up a business, or to undertake any form of travel" (Moghadam, 1998). The ban against women driving in Saudi Arabia, lack of women's suffrage in Kuwait prior to 2005, and the sexual segregation of men and women in buses, classrooms, and workplaces in Iran are means by which the state enforces social norms. In Iran, where women have made strong gains in education, now outnumbering men in universities, former president Rafsanjani has complained of political pressures on him (while president in the 1990s) to limit women's access to the university.[7] Patriarchal gender roles at the household level, reinforced by the social image of men as breadwinners, have been blamed for low female participation in the labor market and wage rigidity (Karshenas, 2001).

The gap in gender relations between MENA and other regions of the world points to social norms as an important feature of the social environment in which micro units operate. The Gender Empowerment Measure (GEM) calculated by the United Nations, which measures the economic and social opportunities open to women relative to men, allows a comparison of gender relations across countries.[8] Figure 4 depicts mean GEM by income per capita

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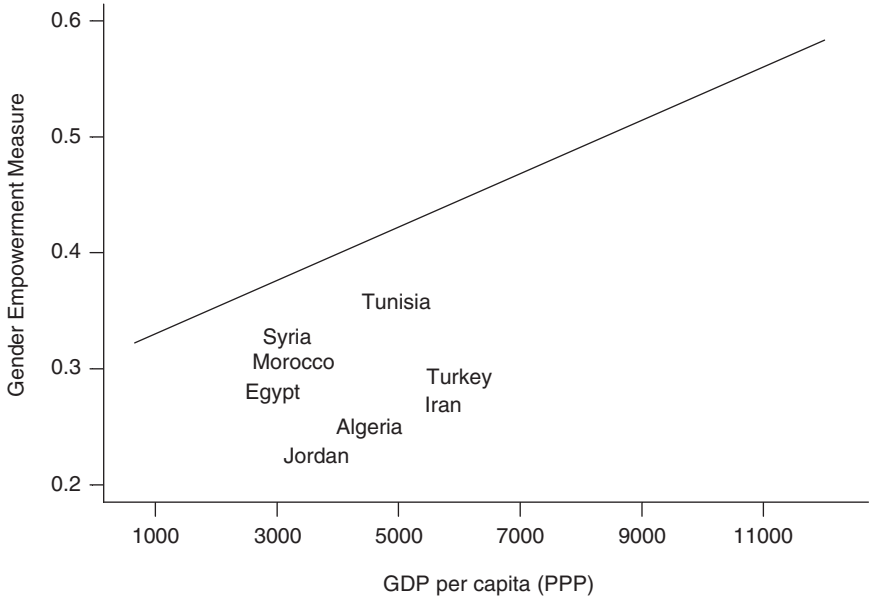
[7] "They asked why women should study if they are not going to work. And even some radical representatives spoke from the tribune of the Majlis asking why should we give the seats in universities to a woman who when she finishes her education must go home and take care of children. I said that an educated mother without a job would be effective in the society because of the children that she will educate." (Interview with M. H. Rafsanjani, author's translation from Persian, *Hamshahri* 1/10/00, p. 15)

[8] According to the *Human Development Report, 1999,* the Gender Empowerment Measure (GEM) "captures opportunities for women in selected economic and political areas. It examines whether women and men are able to actively participate in economic and political life and take part in decision making. It tracks the percentages of women in parliament, among administrators and managers and among professional and technical workers – and women's earned income share as a percentage of men's.

Figure 4. Gender empowerment measure for the MENA countries



and shows that all MENA countries lie below the regression line. Interestingly, GEM in MENA is even below that of much poorer Sub-Saharan African countries (ERF, 2000). Around the world women live longer than men. The "Disability Adjusted Life Expectancy" (DALE) index calculated by the World Health Organization (WHO) shows the MENA countries among a select group in which men fare better than women (Murray and Lopez, 2000). Indeed, the top five countries in this category are the MENA countries. As one observer put it, the lack of "a sex gap in Egypt and Iraq, or the existence of a gap in favor of men in Turkey and Iran, may reflect a relative devaluation of women's well-being in those countries as well as large inequalities between the sexes in education, a variable that correlates highly with health."[9]

Gender norms are constraints on individual decisions, but they also change when enough individuals choose to defy them. Norms with respect to childbearing have gone through drastic change in many MENA countries, where fertility has declined precipitously in recent decades, notably in Iran where the slow pace of increase in women's work outside the home, despite improvements in health, reproduction, and education, might lead one to suppose very rigid gender norms sparingly as explanation of behavior (Salehi-Isfahani,

[9] *Washington Post*, June 12, 2000; p. A09.

2005). Since our understanding of how specific social norms arise and disappear is far from adequate, we must use social norms sparingly as explanation of behavior. Ironically, the oil boom that increased incomes and hastened modernization in the region may have strengthened the traditional gender contract because the inflow of oil revenues removed the need for women to work outside the home (Moghadam, 1998). This observation fits the pattern of gender norms across the region relatively well: norms have proved more resilient to change in oil exporting countries of Iran, Kuwait, and Saudi Arabia, where women have low labor force participation rates despite relatively high education, but shown less rigidity in Morocco, Tunisia, and Turkey where women have the highest activity rates with no apparent advantage in education or skills compared to women in oil-rich countries.

3. Household decisions

Economic theory identifies three household decisions with direct impact on economic growth: to save, to accumulate human capital, and to procreate. These decisions are interdependent. There is the well-known tradeoff between the quantity and quality of children, which derives from the scarcity of resources, mainly time, in the household (Becker, 1991). Children can be a substitute for other assets as means for old-age support. This interdependence implies that, in principle, all other household actions also indirectly affect growth. The allocation of household time between home production, leisure, and market work is the most important of such decisions. For example, rewards for market work for women influence household choices with regard to fertility and investment in human capital and thus indirectly affect growth. In this section I consider decisions with both direct and indirect impact on growth and two features of the environment that constrain these decisions – the interventionist state and social norms.

3.1. Household time allocation

The most important asset of the household is the total time available to its members. The household divides its total endowment of time between leisure, work for home production, and market work. For urban households home production primarily consists of 'child services' (Hotz *et al.*, 1997), which is itself a function of the number and quality of children. Modern economic growth is associated with a shift from home production of commodities to market work, especially for women, and from quantity to quality of children.

The allocation of time in MENA households differs in significant ways from households in other developing countries, and this is most noticeable in the gender allocation of tasks between married couples. Moghadam (1998) speaks of a specific "gender contract" which designates men as breadwinners and women as homemakers. The gender contract implies a low female labor force

participation, at odds with which is the levels of fertility and education in the MENA societies. Whether low participation can be blamed on social norms is an empirical question for which we do not yet have a satisfactory answer. MENA gender norms inherited from the past can be said to constrain household choices – and thereby hinder growth – at present, if we can determine empirically that they prevent a more productive allocation of time between household members. I now examine how social norms affect time allocation in fertility and labor market participation decisions.

3.1.1. Fertility

Despite substantial decline in fertility in several MENA countries, notably Egypt, Iran, Lebanon, Turkey, and Tunisia, the region as a whole has been slow in its demographic transition (Rashad and Khadr, 2002). In 2002, fertility rates in MENA, averaging 3.2 births per woman, were exceeded only by fertility in countries of Sub-Saharan Africa (World Bank, 2004a). Delay in the transition and persistence of high fertility in the Arabian Peninsula where, despite high incomes and high education, fertility remains around 6 births per woman, has given rise to the notion of Islamic or Arab fertility (Caldwell, 1986; Obermeyer, 1992). As late as 1977, MENA births averaged 6.3 per woman (Table 3), nearly as high as in Sub-Saharan Africa (6.6) with much lower per capita income, and twice that of East Asia and the Pacific (3.3). Figure 5 shows that in 1977 the total fertility rate (TFR) in all but two MENA countries (Egypt and Turkey) was higher than indicated by the regression line which depicts mean TFR by income for all developing countries. Recently, fertility has declined in most countries of the region, lowering the TFR from 6.3 to 3.6 in the last 20 years (Table 3). In 1997 at least half of MENA countries were below the regression line (Figure 6).

Two implications of lower fertility for MENA growth are important to note. First, the move from high to low fertility provides these countries with a one-time bonus derived from a favorable age structure. Economic historians have labeled the benefits to growth from a more rapid labor force growth and a low dependency ratio (ratio of working to non-working population) that follow fertility transitions as a "demographic gift" (Bloom and Williamson, 1997) and a "window of opportunity" (Barlow, 1994). Salehi-Isfahani (2002, 2005), Tunali (1996), and Yousef (1998) show how the changing age structure can play a positive role in the MENA countries. Even though fertility has been on the decline in the last 20 years, the rate of growth of the labor force has remained high, averaging 3.2% during 1985–1995 and 2.9% during 1995–2002 (Table 3) and will likely remain above 2% for the next decade or so. Labor force growth rates could be even higher if female labor force participation rates increase. As noted earlier, although the effect of lower fertility and more female education on labor force participation of women in the formal economy is yet to fully materialize, it is only a matter of time before women begin to seek work outside the home.

Table 3. Population, labor force, and fertility

Country	Population Growth (annual %)			Growth of Labor Force (annual %)			Fertility Rate, Total (Births per Woman)		
	1997–1986	1987–1996	1997–2002	1975–1984	1985–1994	1995–2002	1977	1997	2002
Algeria	3.1	2.4	1.6	3.2	3.9	3.4	7.2	3.5	2.8
Egypt, Arab Republic	2.5	2.2	1.9	2.2	2.6	3.0	5.3	3.6	3.1
Iran, Islamic Republic	3.5	2.2	1.2	3.0	2.4	2.7	6.5	2.8	2
Iraq	3.3	3.0	2.1	2.8	3.2	3.0	6.6	4.7	4.1
Jordan	3.8	4.6	3.0	2.1	6.0	4.1	7.2	3.9	3.5
Kuwait	5.1	0.6	3.4	7.5	1.0	5.7	5.9	2.9	2.5
Lebanon	1.3	2.0	1.4	-0.1	3.2	2.7	4.3	2.5	2.2
Libya	4.3	2.1	2.0	4.3	1.9	2.1	7.4	3.8	3.3
Morocco	2.2	1.9	1.7	3.2	2.5	2.5	5.9	3.1	2.8
Oman	4.9	4.1	2.6	5.7	3.7	2.3	10.1	4.8	4
Saudi Arabia	5.4	3.6	2.7	5.1	4.3	2.9	7.3	5.7	5.3
Syrian Arab Republic	3.3	3.2	2.5	3.1	3.7	4.1	7.4	4	3.4
Tunisia	2.7	1.9	1.2	3.7	2.9	2.5	5.7	2.4	2.1
Turkey	2.3	2.0	1.7	1.4	2.8	2.5	4.5	2.6	2.2
UAE	8.7	5.2	4.9	21.8	5.0	4.4	5.7	3.5	3
Yemen, Republic	3.6	4.1	2.9	1.7	5.0	3.0	8	6.4	6
MENA	3.2	2.7	1.9	2.8	3.0	2.9	6.3	3.7	3.1
East Asia and Pacific	1.6	1.5	1.0	2.3	2.0	1.2	3.3	2.2	2.1
South Asia	2.3	2.0	1.8	2.3	2.2	2.4	5.5	3.5	3.2
Sub-Saharan Africa	3.0	2.7	2.4	2.6	2.6	2.6	6.6	5.5	5.1
LAC	2.2	1.8	1.5	3.2	2.7	2.2	4.5	2.7	2.5
Middle income	1.6	1.4	1.0	2.2	1.8	1.3	3.4	2.2	2.1

Source: World Bank, (2004a).

Figure 5. Total fertility rate for the MENA countries, 1977

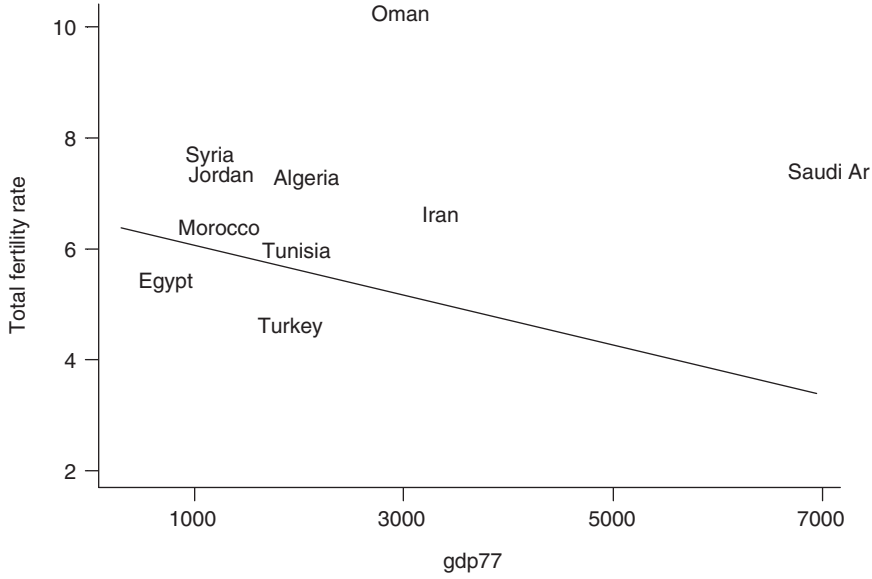
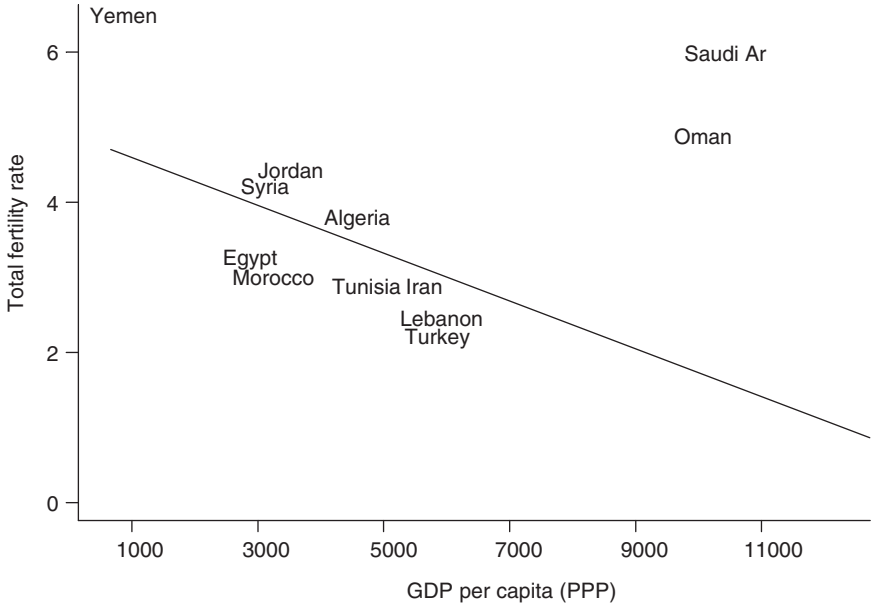


Figure 6. Total fertility rate for the MENA countries, 1997



3.1.2. Participation of women in market work

Reliable data on labor force participation of women in the region is lacking. A few countries report data based on household surveys (Egypt, Kuwait, Iran, Morocco, and Turkey). As in other developing countries, accounting for women's work, especially in self-employment and in agriculture, is notoriously difficult. In addition, many women prefer to declare their occupation as housework (or are identified as such by their husbands if they are the respondent) rather than declare themselves unemployed, even though they would readily accept an appropriate job. Variation in the definition of what is meant by "work" reduces comparability of estimates, but this is a less severe problem in urban areas where own account workers form a smaller proportion of the workforce than in rural areas.

Comparison of urban women across the world reveals a much lower rate of participation for MENA. In 1990s female participation rates in urban Turkey was only 15% (Tunali and Baslevent, 2000), in Egypt about 16% (Assaad and El-Hamidi, 2002), in Jordan 12.1% (Flynn, 1999), and in Iran 8.6% (Statistical Center of Iran, 1998). These rates are all less than half the rates reported for East Asia. Even in the predominantly Muslim Malaysia female labor force participation has reached 40%. Table 4 presents a more complete comparison of the MENA female participation rates based on the share of women in the labor force as reported in World Bank (2004). The participation rate for the MENA women is the lowest among any region and is not changing as fast as one would expect given the rise in education and decrease in fertility. The sharpest contrast is with Sub-Saharan Africa where, despite higher fertility and lower education, women comprised 42.2% of the workforce in 2002, compared to 28.6% for MENA. The fact that Africa is more rural explains a part but not all the difference. The share of MENA women in the labor force appears low even taking into account their higher fertility. Although labor force participation, female education, and fertility are obviously interrelated, it is still informative to compare labor force participation rates conditional on education and fertility. Figures 7a and b present the regression for the share of women in labor force and depict the relative positions of MENA and Sub-Saharan African countries. In this regression, the shares of women in African countries appear well 'explained' by their high fertility and low enrollment rate in secondary school, whereas in the MENA countries they appear as outliers. Finally, changes in participation over time in MENA suggest a slow response to falling fertility. During 1977–2002, a period when fertility dropped by more than half (Table 3), the share of women in the labor force increased very modestly, from 23.4% to 28.6% (Table 4).

Given the declining trend in fertility and rising female education in the MENA region, future increase in female labor participation has the potential to contribute to the MENA growth. If the proportion of women who work outside the home were to gradually increase to the level in East Asia,

Table 4. Women in MENA labor force

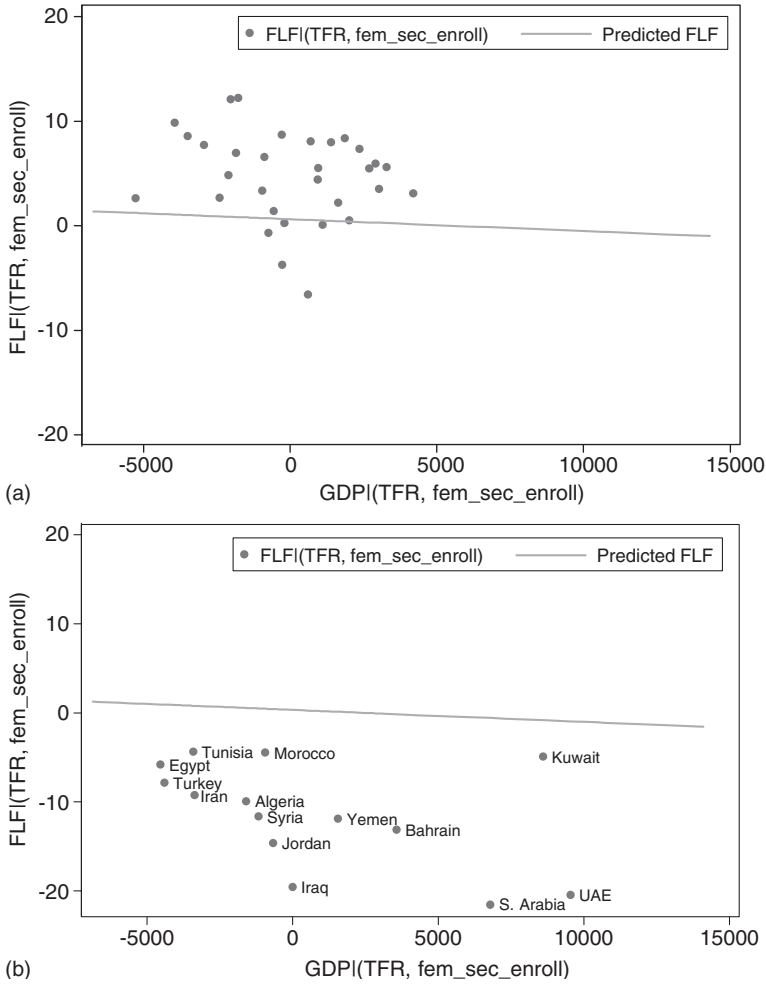
Country	Labor Force, Female (% of Total Labor Force)		
	1977	1997	2002
Algeria	21.1	25.7	29.0
Egypt, Arab Republic	26.3	29.4	31.0
Iran, Islamic Republic	20.0	25.4	28.4
Iraq	17.0	18.7	20.4
Jordan	14.3	22.6	25.6
Kuwait	11.6	31.2	32.1
Lebanon	21.4	28.8	30.1
Libya	17.9	21.7	24.0
Morocco	32.9	34.6	34.9
Oman	6.2	15.1	18.9
Saudi Arabia	6.8	14.2	17.7
Syrian Arab Republic	23.3	26.2	27.6
Tunisia	27.3	30.9	32.1
Turkey	36.2	36.7	38.1
UAE	4.8	13.8	15.9
Yemen, Republic	30.9	27.9	28.3
MENA	23.5	26.6	28.6
East Asia and Pacific	42.1	44.4	44.5
South Asia	33.8	33.0	33.6
Sub-Saharan Africa	42.0	41.9	42.0
LAC	26.4	34.1	35.2
Middle income	40.2	42.0	42.2

Source: World Bank, (2004a).

three times as many women would be participating in the labor market. This increase in the rate of growth of the labor force has the potential to generate economic growth.

These observations indicate that, given their levels of education and fertility, the low rate of market work of the MENA women is an anomaly, but they do not explain it. Social norms are frequently advanced as an explanation (see, for example, El-Sanabary, 1993), but convincing evidence that they do in fact act as a constraint is still lacking. An alternative hypothesis for the low participation of women in MENA is the importance of oil income (World Bank, 2004b). Oil income permits the average MENA family to enjoy a higher standard of living given their education and productivity, thereby reducing the need for women to work. Non-wage family income is well known as a negative influence on the labor force participation of women. The question is whether oil income at the national level acts on household behavior the same way as unearned income. The answer depends on how oil income is distributed. To the extent that households receive transfers from the government, their real income rises without changing the price of leisure. Direct transfers to households, as in

Figure 7(a). Share of women in labor force, conditional on GDP per capita, total fertility, and female school enrollment in Sub-Saharan Africa; (b) Share of women in labor force, conditional on GDP per capita, total fertility, and female school enrollment in MENA



Kuwait, and subsidies for consumer goods, as in all oil-exporting countries, fall into this category. But transfers that occur through the labor market, e.g. higher pay for public sector jobs, do not because they raise the price of leisure which would increase labor supply. Anecdotal evidence suggests that the income effect on women's labor supply may be negative. For example, we read that, coping with hard times, "reluctantly, men allow their daughters to work until marriage or allow their wives to go on working until the mythical day when they can

afford to forgo a second salary,'' (Al-Sayyid-Marsot, 1989, p. 121). But systematic evidence for this view is lacking. Assaad and El-Hamidi (2002) find evidence from micro data from Egypt which indicates the opposite – that female wage workers are more likely to be found in households with a male wage worker and one with higher earnings.

The search for cultural reasons for differences in the labor force participation of women with different ethnic backgrounds in the US has produced mixed results. Ortiz and Cooney (1984) find that the influence of Hispanic culture on the rate of participation of women works mainly through education, fertility, and language. Reimers (1985) confirms this finding for Hispanic women, but concludes that the difference between US-born whites on the one hand and Asian and blacks on the other is due to ''direct cultural effects on the parameters of the labor force participation function.'' In contrast, decline in the female labor force participation during industrialization has been explained by social norms that prevent women from accepting blue-collar jobs (Mammen and Paxson, 2000). Goldin (1995) argues that in the US blue-collar jobs are shunned because they stigmatize the husbands as unable to care for their wives, whereas women holding white-collar jobs do not face such a situation.

Gender norms may influence labor supply of married women through the relative power of men and women in the household. The literature on the division of labor within the household suggests that the relative bargaining position of men and women influences the labor force participation of women, but the direction of influence is not obvious. More power to women may raise or lower their likelihood of market work. Grossbard-Schechtman (1993) presents evidence of circumstances in which women *increased* their participation in response to a decrease in their share of the gains from marriage, this itself being caused by a decline in the ratio of males to females. It is equally plausible to imagine, as indeed the prevailing wisdom on obstacles to women's participation goes, that increased female power within marriage would lead to higher participation. This version appears to be more true in MENA where female labor force participation declines with marriage (World Bank, 2004b). In Egypt, Assaad and El-Hamidi (2002) show that women's market work drops sharply with marriage rather than with childbearing. In Iran, married women have the lowest participation rates, followed by single and widowed women. In Kuwait, Shah and Al-Qudsi (1990) find that the labor force participation of single women aged 25–39 years is more than twice that of married women (60% compared to 30).

Where the rise in education has increased labor force participation rates, social norms may have forced occupational segregation. In MENA, where they have evolved to allow women to work outside the home, gender norms continue to restrict choice by defining what jobs are appropriate for women. However, although job segregation appears to discourage women from participation, it does not appear to be out of line in comparison to other regions (World Bank, 2004b, p. 93). As in most other regions of the world, educated women in MENA predominate in teaching, nursing, and clerical work.

3.2. Human capital

Historically, human capital has played a significant role in the economic growth of the MENA region. Harnessing water resources for agriculture and developing the calendar to assist cultivation presupposed the development of a scientific community in urban centers. When the environment has been conducive to human capital accumulation, the region has prospered. Although institutions of formal education existed for periods of time in the major cities of the region, the urban nuclear family seems to have played a significant role in the intergenerational transfer of human capital. To this day, education in the MENA region enjoys a high social status, which is reflected in a high level of public commitment. Public expenditures on education are higher than in most developing countries (World Bank, 1997b) and average years of schooling and enrollments are commensurate with the region's income.[10] Yet the region's experience of economic growth does not seem to have benefited from its growth of education (Pritchett, 1999). Thus, the central question which is posed by the MENA experience is why the *productivity* of human capital has been so low (Pissarides and veganzones-varoudakis, this volume).

In this section I focus on the key dynamic decisions of MENA households that affect growth through the accumulation of human capital. A general characterization of the behavior of the average urban household in MENA is that it invests little in physical capital, a respectable amount in human capital, and has a relatively high fertility. The key dynamic decisions influenced by the MENA external environment are those that relate to fertility and the accumulation of human capital. My emphasis is on how the external environment, as defined by the preeminent role of the state in the labor market, has influenced human capital accumulation. I argue that the relatively high level of investments in education in MENA results in a low accumulation of productive human capital because excessive job protection distorts incentives in favor of testable knowledge and away from less observable types of human capital, such as creativity. The importance attached to diplomas as distinct from learning productive skills is the results of labor market institutions which reward formal schooling, but not productive skills that only employers are able to observe. In short, private returns to measurable skills exceed their social returns, while the opposite is true for employer-determined abilities.

3.2.1. Health and education

Although governments share with households the responsibility for provision of health and education of children, they cannot fully substitute for the role of households. Decisions taken by households to provide for the health and

[10] For a review of education in Arab countries also see, Arab Human Development Report, 2002 (UNDP, 2002, Chapter 4).

Table 5. Health indicators

Country	Life Expectancy at Birth, Female (Years)		Life Expectancy at Birth, Male (Years)		Mortality Rate, Infant (per 1,000 Live Births)	
	1977	2002	1977	2002	1977	2002
Algeria	58.5	72.1	56.5	69.4	112.0	39.0
Egypt, Arab Republic	55.3	70.5	52.9	67.3	131.0	33.0
Iran, Islamic Republic	57.0	70.3	56.2	68.3	100.0	34.0
Iraq	62.3	63.9	60.5	61.4	84.0	102.0
Jordan	–	73.6	–	70.4	42.0	27.0
Kuwait	71.7	79.0	67.5	74.9	34.0	9.0
Lebanon	67.0	72.6	63.1	69.0	48.0	28.0
Libya	59.3	74.9	56.0	69.9	107.0	16.0
Morocco	57.5	70.4	54.1	66.4	110.0	39.0
Oman	56.1	75.6	53.8	72.6	51.0	11.0
Saudi Arabia	59.9	74.9	57.6	71.4	75.0	23.0
Syrian Arab Republic	61.9	72.7	58.3	68.0	67.0	23.0
Tunisia	61.5	74.6	59.6	70.8	84.0	21.0
Turkey	62.5	72.5	58.0	67.5	120.0	35.0
UAE	68.9	76.8	64.7	74.0	70.0	8.0
Yemen, Republic	48.5	58.1	45.0	56.8	158.0	83.0
MENA	57.5	70.1	55.4	67.2	107.0	43.7
East Asia and Pacific	63.9	71.3	61.8	67.7	58.7	32.4
South Asia	51.9	63.8	52.6	62.2	130.5	67.9
Sub-Saharan Africa	48.4	46.6	45.1	45.1	119.7	103.1
LAC	66.0	74.0	60.9	67.6	67.5	28.3
Middle income	66.0	72.3	62.7	67.5	63.5	30.2

Source: World Bank, (2004a).

education of children during the early years are of critical importance for their human capital as adults (Young, 1995). Furthermore, while governments can be effective in the provision of health and education services, parents must be willing to take advantage of those services. Health outcomes in MENA appear to be commensurate with the economic standing of the region (Table 5). Infant mortality declined by more than 50% between 1977 and 2002, in line with fertility decline. Life expectancy and mortality reflect better health outcomes in MENA than in South Asia and Africa, but lower than in East Asia and Latin America.

Parental investment in children is affected by the incentive structure they face. The most critical signals they receive are the rates of return to investment in various types of human capital which the labor market and the educational system generate. We can assume that decisions to invest in children are mostly driven by considerations for child welfare and old-age security for the parents. Depending on the level of old-age security that is socially provided, parents may depend more or less on their children as means for old-age support. Parents may also wish to increase the welfare of their children by investments that are embodied in

Table 6. School enrollment rates

Country	Primary		Secondary		Tertiary	
	1980	1996	1980	1996	1980	1996
Algeria	80.9	94.1	30.5	56.2	5.9	13.4
Egypt	–	93.0	–	67.8	16.1	22.6
Iran	–	89.8	–	68.8	–	17.1
Iraq	98.6	76	46.8	–	8.7	10.9
Jordan	–	–	–	–	26.6	–
Kuwait	84.5	–	–	–	11.3	26.7
Lebanon	–	76.1	–	–	30.1	27.1
Libya	–	–	62.3	–	7.8	20.0
Morocco	61.6	73.8	20.3	–	5.9	11.3
Oman	42.6	68.7	9.9	–	–	6.4
Saudi Arabia	48.6	61.4	21.3	42.4	7.1	16.3
Syria	89.5	91.2	39.3	38.1	16.9	15.1
Tunisia	82.2	97.6	22.9	–	4.8	13.7
Turkey	–	–	–	–	5.4	18.2
UAE	73.6	–	–	–	3.1	11.9
Yemen, republic	–	52.0	–	–	4.1	4.2
MENA	78.2	86.8	–	61.2	10.8	15.9
East Asia and Pacific	93.5	101.3	–	–	3.3	8.1
South Asia	–	–	–	–	4.5	6.3
Sub-Saharan Africa	–	–	–	–	1.4	3.4
LAC	85.5	91.2	28.7		14.1	18.6

Source: World Bank, (2004a).

them – human capital – rather than by bequest. The tradeoff between these two depends on the performance of other asset markets and inheritance laws. Lack of confidence in asset markets and inheritance laws that conflict with the wish of parents – for example, Islamic laws that allow daughters to inherit only one-half as much as boys – increase the willingness of parents to invest in human capital.

The pattern of increase in education in MENA offers a clue to the productivity puzzle noted earlier. While literacy rates are not high in comparison with other developing countries, enrollments in high school and universities are very impressive. In 1997 female and male literacy rates of 46% and 71%, respectively, in Arab countries were marginally better than 49% and 65% in Africa, and much worse than 86% and 88% in Latin America and 75% and 91% in East Asia (United Nations, 1999). In contrast, in 1996 MENA university enrollment rates were on average twice as high as East Asia and Pacific (Table 6). Emphasis on university education is also evident in the share of public education budget that goes to higher education, ranging from a low of 50% in Algeria to as high as 99% in Lebanon (United Nations, 1999). Rewards to education above the basic level – upper and post secondary – appear to be high, in keeping with the reward structure in the public sector-dominated labor market.

Table 7. Gender and education

Country	Female–Male Differential in Literacy	% of Female Students in Secondary Education	% of Female Students in Higher Education
	1997	1996	1996
Algeria	25.0	47.9	–
Egypt	24.3	45.3	–
Iran	15.0	46.3	45.0
Jordan	10.4	47.2	46.9
Kuwait	5.6	49.6	61.6
Lebanon	12.9	–	49.2
Libya	25.8	–	–
Morocco	26.6	–	–
Oman	21.9	48.6	46.0
Saudi Arabia	18.6	45.8	46.5
Syria	30.0	46.3	–
Tunisia	22.2	–	44.6
Turkey	18.5	–	–
UAE	−2.8	49.9	–
Yemen, republic	43.3	–	12.5
MENA	22.9	41.3	46.3
East Asia and Pacific	13.9	–	33.2
South Asia	26.9	–	36.3
Sub-Saharan Africa	16.1	–	–
LAC	2.2	–	–

Source: World Bank, (2004a).

The same anomaly appears in the gender gap in education: the gap in literacy is higher than in all other regions except South Asia, but much narrower in secondary and higher education (Table 7). The proportion of women in secondary education in the MENA countries is between 45% and 50%, comparable to 48% in South Korea. In higher education the proportion is surprisingly high, exceeding 40% for many countries, surpassed only by Latin American countries. In Kuwait, Iran, and Saudi Arabia women equal or outnumber men in universities.

In MENA, through intensive testing, university education is rationed according to student aptitude, willingness to work hard and to memorize, and to a lesser extent by parental willingness to pay, compared to Europe where they are ''rationed not by price or aptitude, but by achievement in the core subjects studied in secondary schools'' (Bishop, 1996, pp. 120–121). MENA states enforce uniform tests at all levels of education, but their control over the university entrance examinations is probably their most effective tool in determining incentives in all levels of education. In Iran, private schools work harder than public schools to teach for the ''big test'' and parents spend large

sums on private tutoring (Salehi-Isfahani, 2002). In Egypt, parents invest heavily in private tutoring to help prepare their children for university entrance examinations (World Bank, 1999). In 1994, 64% of urban and 51% of rural primary school-age children had received supplementary tutoring (Bray and Kwok, 2003, p. 2). In 1997, household expenditures on supplementary tutoring in preparatory, primary, and secondary levels accounted for 1.6% of the GDP (World Bank, 2002, Figure 15), which is more than one-quarter of all public expenditures in education. Private tutoring is also an important industry in Turkey, costing parents about 1.4% of the GDP (Tansel and Bircan, 2004).

As noted earlier, despite high levels of enrollments in high school and university education, the impact of education on growth in MENA is not noticeable. Pritchett (1999) argues that the MENA region has enjoyed "the fastest expansion of schooling of any region, including East Asia," but has experienced one of the slowest growth rates in the world. Pritchett points to the low quality of education in MENA as a possible explanation for the low impact of education on growth. But the problem may not be so much with the quality of education than lack of a link between what students learn and what productive jobs require. Schools place too much emphasis on repetition and memorization, which may help with entry into the university, but not with productivity on the job (World Bank, 1999). Finishing high schools and entering the university has a huge premium in most MENA countries because it increases the probability of getting a job and of higher pay (see references below to returns to education). Highly competitive exams for entering university induce parents and students to invest heavily in skills that increase the chance of passing the university entrance examinations, as evidenced by the huge expenditures on private tutoring just noted. The test-taking approach to education not only shortchanges students on the skills they need for productive employment, but also creates huge losses in efficiency as the bar is continuously raised to admit a limited number of students into the highly desirable places in universities. One outcome of this competitive system is that while top students from MENA perform very well in international competitions, students who take part in other international tests (such as in the Third International Mathematics and Science Study) that measure learning by the average student do rather poorly (World Bank, 1997a).

3.2.2. The role of the labor market

The returns to investment in human capital are in large part realized in the labor market. Wide-ranging state interventions have reduced the flexibility of MENA labor markets (Pissarides and Veganzones-Varoudakis, this volume). Evidence for labor market rigidity was presented earlier in Section 2. Two aspects of this inflexibility are particularly important from the point of view of human capital accumulation. First, is the importance of formal education and diplomas for selection into public and private sector employment, and, second, the inability of employers to reward or lay off workers according to productivity (Salehi-Isfahani and Murphy, 2004). Employers, public or private, place too much

emphasis on formal degrees and little on individual characteristics that they deem as productive. As noted earlier, some countries even offer job guarantees for high school and university graduates, as in Egypt and Morocco. Emphasis on formal schooling and diplomas on the part of employers, private or public, is a logical response to an inflexible labor market (Salehi-Isfahani and Murphy, 2004). Individual characteristics that are not easily measured by testing, but can be observed after a period of employment are not very useful to employers who cannot lay off workers once they have hired them. As a result, they are likely to place greater value on *ex ante* signals of human capital, such as years of schooling, test scores, and class and school rank. Naturally, in the MENA countries workers invest in the type of human capital that can land them a good job rather than those that help them hold on to a job once it has been acquired.

While theory helps us understand the potential distortionary effects of labor market interventions on incentives, the actual effects can only be assessed empirically. Studies of private returns to education are the most widely used for this purpose. Unfortunately, only a few studies of returns to education exist for MENA (see Tansel, 1994; Assaad, 1997; Wahba, 2001). In general, they show the convex (rising) rate of return that one would expect from an education system in a distorted labor market. There is also some evidence of the effect of public sector dominance of employment. Assaad (1997) studies the returns to public and private jobs in Egypt. He finds that public sector hiring practices have a substantial impact on the labor market because, despite erosion in pay, they still offer an advantage over private sector jobs. The overall premium caused by compensation and job tenure is high enough to cause large unemployment queues for public sector jobs.

3.3. Savings

Like households elsewhere, the MENA households save for a variety of reasons, to improve a business, for old age or a dowry, or just as insurance against loss of income. The behavior of urban households that operate small enterprises, and therefore engage in both saving and investing, are more appropriately addressed in a paper on firm behavior. The majority of urban households that do not own a business and are the focus of this paper resort to financial or other assets as a means to save.

Existing data do not permit disaggregation of national savings by origin (households, firms, and the government). Income and expenditure data reported in household expenditure surveys are not reliable for estimating personal savings.[11] The high-saver countries in MENA are exclusively large oil exporters (Table 8). Non-oil exporters' propensity to save is less than half of that of the

[11] Expenditure and integrated household surveys in Iran typically report expenditures in excess of income, sometimes by 30%. The blame usually goes to the unreliability of the income data.

Table 8. Savings and interest rates

Country	Average Real Interest Rates (%)			Gross Saving/GDP (%)	
	1968–1977	1978–1987	1988–1997	1977	1997
Algeria	–	–	–	35.7	34.5
Egypt	4.6	4.5	5.9	18.5	13.0
Iran	–	–	–	37.0	34.1
Jordan	–	–	2.9	−9.7	5.5
Kuwait	–	1.3	1.6	51.9	25.2
Lebanon	–	6.3	15.9	–	−16.7
Libya	3.1	1.8	1.5	50.0	–
Morocco	–	1.0	0.5	11.6	15.2
Oman	–	1.4	2.6	44.9	26.7
Saudi Arabia	–	–	–	54.9	34.6
Syria	–	–	–	13.0	19.0
Tunisia	–	4.1	2.5	22.1	24.2
Turkey	–	2.4	–	13.3	19.3
UAE	–	–	–	69.9	27.4
Yemen, republic	–	–	–	–	12.8
MENA	–	–	–	36.6	25.5
East Asia and Pacific	–	–	–	28.0	37.7
South Asia	–	–	–	18.1	18.2
Sub-Saharan Africa	–	–	–	23.4	16.7
Middle income	–	–	–	25.7	25.7

Source: World Bank, (2004a).

East Asian countries. Private sector investment in MENA is below other countries, about 10% in the 1990s compared to 18% for developing countries and 22% for Asian countries (IMF, 1996). No data are available on the part of this investment that is financed by household savings as opposed to retained earnings of firms. In developed countries household savings is a significant source of finance for firms, but not so in developing countries, where weak financial intermediation cannot channel household savings toward investors. Policies to liberalize the financial markets and deepen financial intermediation intend to raise the ability of small savers, such as households, to contribute to growth. Several MENA countries, mainly in North Africa, have attempted financial reform as part of their structural adjustment, but studies that can show if household savings have increased as a result do not exist.

Economic theory does not give a clear indication of the impact of interest rates on personal savings (Deaton, 1997). Neither of the main theories of why households save – life cycle, permanent income, or consumption smoothing – predicts unambiguously that savings should increase with interest rates. What we do know is that a well-developed system of financial intermediation is associated with a more effective use of household savings. It is generally agreed that with low and negative real rates of interest it is difficult to raise long-term finance from personal sources. Table 8 shows that for those countries that report

the real interest rate in World Bank (2004), it has increased over time and is positive. In Iran, until recently, real interest rates averaged negative, and as recently as 2000 were about 5% points below zero (Jalali-Naini, 1997). Easterly (1999) notes a similar rise in the rate of interest for developing countries as a whole, showing that real rates, which were negative before 1980, were on average positive afterward.

The financial environment in which MENA households generally operate not only suffers from lack of depth, they are also insecure due to the heavy influence of the public sector and a weakly developed legal system overseeing financial contracts. As a result, households may prefer to place their savings in unproductive assets such as gold and land rather than in the financial system. The risks of nationalization and loss of value owing to inflation, even in countries undergoing reform, deter savers from depending on the financial system for long-term savings.

4. Conclusions

The question posed in this paper is whether households in MENA allocate their resources efficiently and in a way as to promote growth. To answer this question, I focused on the role of urban households, because they form the majority of households and are the main source of growth in human capital and therefore of modern economic growth. I argued that an efficient allocation of household resources which would maximize growth may not be feasible because of constraints that households face in their decisions to supply labor, and human and physical capital. I identified two aspects of the environment in which MENA households operate as key to conditioning their behavior: the large role played by the state in the education and labor markets and the social norms regarding gender. I argued that this environment has affected an important static decision of the households, namely the division of labor within the household, resulting in high fertility and low labor force participation of women. Given the declining trend in fertility and rising female education, increase in female labor force participation has the potential to raise MENA growth rates. If the proportion of women who work outside home were to gradually increase to the level in East Asia, three times as many women would be participating in the labor market, resulting in a lasting positive impact on economic growth.

I then identified the implications of the same environment for the dynamic aspects of household decisions – human capital accumulation and savings. Although little evidence exists regarding the magnitude of household savings in MENA, we know that their effectiveness for growth has been compromised by lack of confidence on the part of the households in the financial markets, which is itself the result of arbitrary actions by governments and the absence of the rule of law. I argued that the impact of state interventions and social norms on household actions were much greater in the accumulation of human capital than in the physical capital. The role of the public sector in MENA in education and the

labor market has created a system of incentives in which households strive hard to accumulate formal education, but not enough in productive human capital.

There are several implications of the analysis of this thematic paper for future research. First, studies focused on individual countries should examine the extent to which characteristics of the environment identified here – the large role of the state and social norms – apply in specific cases. As far as the role of the state is concerned, a description of employment policies and labor market regulations is a good place to start. For social norms, indicators of restrictions placed on women in schools, the workplace, and public space should be developed to define the environment in which the households make decisions regarding fertility, female education, and labor force participation. If these constraints are judged as relevant and adequate descriptions of the environment in which households operate, their effect on household behavior should be the next item on the research agenda.

Micro studies of household behavior can be very useful in understanding the impact of the environment on the static and dynamic decisions of the households. In particular, they are indispensable in disentangling the effects of individual preferences and social norms as constraints on household behavior. For example, it is important to distinguish gender discrimination owing to parental preferences from that which is a rational household response to the gender discrimination in the labor market. Evidence on the static decisions could come from aggregate data on fertility and labor force participation of women, but ideally, one would need micro data to link individual characteristics, such as income and education, to fertility and labor force participation decisions. By controlling for observed individual characteristics, micro studies can provide a closer link between social norms and demographic and labor market outcomes.

For decisions to save and to accumulate human capital, the focus should be on the institutions of markets for credit, education, and labor. With respect to physical capital accumulation, the efficiency with which credit institutions can channel household savings toward productive investments should be determined. Do banks and other mechanisms of financial intermediation provide households with good alternatives to investments in unproductive assets such as land? Micro studies of consumption smoothing over the life cycle and intergenerational transfers through inheritance and dowries can provide valuable information on the household motives to save. With respect to human capital, which is produced within households as well as in schools, two questions should guide country studies. First, to what extent is the productivity of human capital affected by state interventions in the labor market? Second, to what extent household investments in the education of boys and girls are driven by the gender inequalities owing to social norms? Studies of returns to education which compare returns to formal schooling in private versus public sector, large establishments regulated by labor laws versus those unregulated, can reveal how state interventions in the labor market affect household choices in the amount and type of human capital to accumulate.

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References

Abrahamian, E. (1974), "Oriental despotism: the case of Qajar Iran", *International Journal of Middle East Studies*, Vol. 5(1), pp. 3–31.

Ashraf, A. (1970), "Historical obstacles to the development of a bourgeoisie in Iran", pp. 308–332 in: M.A. Cook, editor, *Studies in the Economic History of the Middle East from the Rise of Islam to the Present Day*, Oxford: Oxford University Press.

Al-Sayyid-Marsot, A. (1989), "Women and social change", in: G. Sabbagh, editor, *The Modern Economic and Social History of the Middle East in its World Context*, Cambrigde, UK: Cambridge University Press.

Anderson, L. (1987), "The state in the Middle-East and North Africa", *The Journal of Comparative Politics*, Vol. 1(3), pp. 1–18.

Assaad, R. (1997), "The effects of public sector hiring and compensation policies on the Egyptian labor market", *World Bank Economic Review*, Vol. 11(1), pp. 85–118.

Assaad, R. and F. El-Hamidi (2002), "Female labor supply in Egypt: participation and hours of work", in: I. Sirageldin, editor, *Population Challenges in the Middle East and North Africa: Towards the Twentieth First Century*, London: I.B. Tauris and Cairo: American University of Cairo Press.

Barlow, R. (1994), "Population Growth and Economic Growth: some More Correlations", *Population and Development Review*, Vol. 20(1), pp. 153–165.

Barnett, S., S. Eken, M. Lockheed, and W. V. Eegen (1998), "Effective financing of education: role of public and private sectors", Paper presented at the 1998 Annual Seminar of the Arab Monetary Fund and the Arab Fund for Economic and Social Development, February 21–22, 1998, Abu Dhabi.

Becker, G.S. (1991), *A Treatise on the Family*, second ed., Cambridge, MA: Harvard University Press.

Besley, T. and R. Burgess (2004), "Can labor regulation hinder economic performance? Evidence from India", *The Quarterly Journal of Economics*, Vol. 119(1), pp. 91–134.

Bill, J.A. and C. Leiden (1974), *Politics in the Middle East*, Boston: Little, Brown and Company.

Bishop, J.H. (1996), "Incentives to study and the organization of secondary instruction", pp. 99–160 in: W.E. Becker and W. Baumol, editors, *Assessing Educational Practices*, Cambridge MA: MIT Press.

Bloom, D. and J. Williamson (1997), ''Demographic transitions and economic miracles in emerging Asia'', *World Bank Economic Review*, Vol. 12(3), pp. 419–455.

Botero, J., S. Djankov, R.L. Porta, F.L. de Silane, and A. Shleifer (2003), ''The regulation of labor'', NBER Working Paper No. 9756, National Bureau of Economic Research.

Bray, M. and P. Kwok (2003), ''Demand for private supplementary tutoring: conceptual considerations and socio-economic patterns'', *Economics of Education Review*, Vol. 22, pp. 611–620.

Caldwell, J. (1986), ''Routes to low mortality in poor countries'', *Population and Development Review*, Vol. 12(2), pp. 171–220.

Collier, P. and J.W. Gunning (1999), ''Explaining African economic performance'', *Journal of Economic Literature*, Vol. 37(1), pp. 64–111.

Davis, J., R. Ossowski, J. Daniel, and S. Barnett (2001), ''Stabilization and savings funds for nonrenewable resources: experience and fiscal policy implications'', International Monetary Fund Occasional Paper No. 205, IMF: Washington DC.

Deaton, A. (1997), *Analysis of Household Data*, Baltimore: The Johns Hopkins University Press.

Easterly, W. (1999), ''The lost decades: explaining developing countries' stagnation 1980–1998'', World Bank, mimeo.

El-Erian, M., S. Eken, S. Fennel, and J. Chaurfour (1996), *Growth and stability in the Middle East and North Africa*, International Monetary Fund: Washington DC.

El-Sanabary, N. (1993), ''Middle East and North Africa'', pp. 136–174 in: E.M. King and M.A. Hill, editors, *Women's Education in Developing Countries: Barriers, Benefits and Policies*, Baltimore and London: The Johns Hopkins Press.

ERF (2000), *MENA Indicators 2000*, Cairo: Economic Research Forum.

Esfahani, H. and F. Taheripour (2002), ''Hidden public expenditures and the economy in Iran'', *International Journal of Middle Eastern Studies*, Vol. 34(3), pp. 691–718.

Flynn, D. K. (1999), ''Reconceptualizing the female labor force in Jordan: accounting for the informal sector'', Paper presented in the ERF Sixth Annual Conference, October 28–31, 1999, Cairo.

Gelb, A. (1988), *Oil Windfalls: Blessing or Curse?*, Oxford, UK: Oxford University Press.

Goldin, C. (1995), ''The U-shaped female labor force function in economic development and history'', in: T.P. Schultz, editor, *Investment in Women's Human Capital*, Chicago: University of Chicago Press.

Grossbard-Schechtman, A. (1993), *On the Economics of Marriage: A Theory of Marriage, Labor and Divorce*, Boulder, CO: Westview.

Guriev, S. and D. Salehi-Isfahani (2003), ''Microeconomics determinants of growth around the world'', in: G. McMahon and L. Squire, editors,

Explaining Growth: A Global Research Project, IEA Conference Vol. No. 150, London: Palgrave, MacMillan.

Jalali-Naini, S.A.R. (1997), ''A look at inflation and monetary, foreign exchange, and credit policies'', in: M. Nili, editor, *The Iranian Economy*, Tehran: Institute for Research in Planning and Development (in Persian).

IMF (1996), Building on Progress, Reforms and Growth in the Middle East and North Africa, Middle East Department.

Issawi, C. (1995), *The Middle East Economy: Decline and Recovery*, Princeton: Markus Wiener Publishers.

Karshenas, M. (2001), ''Economic liberalization, competitiveness and women's employment in the Middle East and North Africa'', in: D. Salehi-Isfahani, editor, *Labor and Human Capital in the Middle East: Studies of Labor Markets and Household Behavior*, Reading, UK: Ithaca Press.

Kazemi, F. (2000), ''Gender, Islam and politics'', *Social Research*, Vol. 67(2), pp. 453–474.

Lazear, E.P. (1990), ''Job security provisions and employment'', *Quarterly Journal of Economics*, Vol. 105(3), pp. 699–726.

Mahdavy, H. (1970), ''Patterns and problems of economic development in rentier states: the case of Iran'', in: M. Cook, editor, *Studies in the Economic History of the Middle-East*, Oxford, UK: Oxford University Press.

Mammen, K. and C. Paxson (2000), ''Women's work and economic development'', *Journal of Economic Perspective*, Vol. 14(4), pp. 141–164.

Manski, C. F. (2000) ''Economic analysis of social interactions,'' *Journal of Economic Perspectives*, Vol. 14(3) (Summer), pp. 115–136.

Mason, K.O. (1997), ''Gender and demographic change: what do we know?'', pp. 158–182 in: G.W. Jones, R.M. Douglas, J.C. Caldwell and R.M. D'Souza, editors, *The Continuing Demographic Transition*, Oxford: Clarendon Press.

McDonald, P. (2000), ''Gender equity in theories of fertility'', *Population and Development Review*, Vol. 26(3), pp. 427–439.

Moghadam, V.M. (1998), *Women, Work, and Economic Reform in the Middle East and North Africa*, Boulder, CO: Lynne Reinner Publishers.

Nashat, G. (1999), ''Women in the Middle East, 8000 B.C.E.-C.E. 1800'', pp. 5–72 in: G. Nashat and J.E. Tucker, editors, *Women in the Middle East and North Africa*, Bloomington and Indianapolis: Indiana University Press.

Obermeyer, C.M. (1992), ''Islam, women and politics'', *Population and Development Review*, Vol. 18(1), pp. 33–57.

Ortiz, V. and R. Cooney (1984), ''Sex-role attitudes and labor force participation among young Hispanic females and non-Hispanic White females'', *Social Science Quarterly*, Vol. 65(June), pp. 392–400.

Pissarides, C., and Veganzones-Varoudakis (this volume), ''Labor markets and economic growth in the MENA Region'', Explaining Growth in the Middle East. J. B. Nugent and M. H. Pesaran, editors, London: Elsevier.

Posusney, M.P. (1997), *Labor and the State in Egypt*, New York: Columbia University Press.

Pritchett, L. (1999), *Has education had a growth payoff in the MENA region?* MENA Working Paper Series, No. 18, Washington DC: World Bank.

Psacharopoulos, G. and X. Nguyen (1997), *''The role of government and the private sector in fighting poverty*, Washington D. C.: World Bank Publications.

Rashad, H., and Khadr, Z. (2002). ''The demography of the Arab region: new challenges and opportunities'', in: Sirageldin, I. editor, *Human Capital: Population Economics in the Middle East.* London: I.B. Tauris, 2002.

Reimers, C.W. (1985), ''Cultural differences in labor force participation among married women'', *American Economic Review Proceedings*, Vol. 198575(2), pp. 251–255.

Richards, A. and J. Waterbury (1996), *A Political Economy of the Middle East*, 2nd ed., Boulder, Colorado: Westview Press.

Said, M. (2001), ''Public sector employment and labor markets in Arab countries: recent developments and policy implications'', in: D. Salehi-Isfahani, editor, *Labor and Human Capital in the Middle East: Studies of Labor Markets and Household Behavior*, Reading, UK: Ithaca Press.

Salehi-Isfahani, D. (1999), ''Labor and the challenge of restructuring in Iran'', *Middle East Report*, Vol. 28(210), pp. 34–37.

Salehi-Isfahani, D. (2000), ''Demographic factors in Iran's economic development'', *Social Research*, Vol. 67(2), pp. 599–620.

Salehi-Isfahani, D. (2002), ''Population, human capital, and economic growth in Iran'', in: I. Sirageldin, editor, *Human Capital: Population Economics in the Middle East*, London: I.B. Tauris and Cairo: American University of Cairo Press.

Salehi-Isfahani, D. (2005), ''Human resources in Iran: potentials and challenges'', *Iranian Studies*, Vol. 38(1), pp. 117–147.

Salehi-Isfahani, D. and R. D. Murphy (2004), ''Labor market flexibility and investment in human capital'', Working paper, Department of Economics, Virginia Tech.

Shaban, R., R. Assaad and S. Al-Qudsi (2001), ''Employment experience in the Middle East and North Africa'', in: D. Salehi-Isfahani, editor, *Labor and Human Capital in the Middle East: Studies of Labor Markets and Household Behavior*, Reading, UK: Ithaca Press.

Shah, N. M. and S. S. Al-Qudsi (1990), ''Female work roles in traditional oil economy: Kuwait'', in: Vol. 6, 213–246 I. Sirageldin, editor, *Research in Human Capital and Development*.

Statistical Center of Iran (1998), *Employment and Unemployment of Households*, Tehran, Iran.

Tansel, A. (1994), ''Wage–employment, earnings and returns to schooling for men and women in Turkey'', *Economics of Education Review*, Vol. 13(4), pp. 305–320.

Tansel, A. and F. Bircan (2004), "Private tutoring expenditures in Turkey", IZA Working Paper No. 1255, Bonn, Germany. URL: http://ssrn.com/abstract = 560283.

Tunali, I. (1996), "Labor market implications of the demographic window of opportunity", *The Forum*, Vol. 3(4), p. 3. ERF: Cairo.

Tunali, I. and Baslevent, C., (2000), "Estimation of female labor supply parameters when self-employment is an option", Mimeo.

United Nations (1999), *Human Development Report CD-Rom*, New York: United Nations.

UNDP (2002), *Arab Human Development Report 2002*, New York: United Nations Development Program.

Wahba, J. (2001), "Returns to education and regional earnings differentials in Egypt", in: D. Salehi-Isfahani, editor, *Labor and Human Capital in the Middle East: Studies of Labor Markets and Household Behavior*, Reading, UK: Ithaca Press.

World Bank (1997a). "Education in MENA: benefits and growth payoffs now and then", Mimeo

World Bank (1997b). "Spending on education in selected MENA countries", Mimeo, Washington DC

World Bank (1999), *Education in the Middle East & North Africa: A Strategy towards Learning for Development*, Human Development Sector, MENA region.

World Bank (2002), *Arab Republic of Egypt: Education Sector Review – progress and Priorities for the Future*, Washington, DC: The World Bank.

World Bank (2004a), *World Development Indicators CD-ROM*, Washington DC: The World Bank.

World Bank (2004b), *Gender and Development in the Middle East and North Africa Women in the Public Sphere,* MENA Development Report, Washington, DC: The World Bank.

Young, M.E. (1995), *Early Childhood Development: Investing in the Future*, Washington DC: The World Bank.

Yousef, T. (1998), "Demography, capital dependency, and growth in MENA", ERF Working Paper No. 9801, ERF: Cairo