

THE SLOW AND THE SWIFT IN THE ARAB WORLD  
LESSONS FROM THE EDUCATION SECTOR

By

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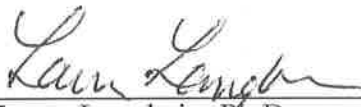
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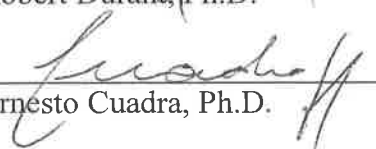
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## DEDICATION

To My Mother, Amany,  
who taught me to dream,  
and to pursue my dream . . .

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ABSTRACT

This dissertation addresses the apparent shift in the center of innovation and creativity among Arab countries from its traditional centers in countries like Egypt to small countries on the outskirts of the Arab world such as Qatar and the UAE. I use the field of education as an approach to address this shift, focusing on the poor education outcomes in Arab countries in terms of student achievement and relevance to the needs of the labor market. My analysis is based on three building blocks: size, history, and political stability as main determinants of growth and the ability to innovate. I start by a time-series, cross section regression analysis to examine the utility of these pillars on education and economic performance among Arab countries. This analysis shows that small size and political stability have positive effects on economic growth. The results of the quantitative analysis also agree with previous research on Arab countries regarding the absent link between education and GDP growth.

I took this skeleton a step further in the final three chapters by telling the story of the relationship between education and economic performance in Arab countries through a lens which focuses on the three pillar of this work. In chapter 3, I reviewed the effects

of history, oil, and political stability considerations on creating and maintaining memorization-based education systems in Arab countries that contribute little, if at all, to economic growth. In the final two chapters, I used the cases of education quality assurance systems in Egypt and Qatar to examine how variations in these three pillars determine the speed of education sector reform. I concluded that smaller countries with shorter histories have less resistance to change. Political stability also reduces the disincentives to change.

Based on these analyses, the dissertation concludes by offering a typology of Arab countries premised on aspects of the three pillars. Focusing on size and history, this typology can be used by scholars and policy makers across a range of policy areas, not just education, to predict obstacles to reform in Arab countries in the wake of the Arab Spring.

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Finally, as this work comes at a moment of change in the Arab world, I cannot help but acknowledging the inspiring uprisings of people across the Arab world for their dignity and rights. I extend my highest regards to those who sacrificed for their countries, their people, and the future of their children and grandchildren. Their sacrifice gave meaning to my work on development, growth, and education in Arab countries. Although many of the individual names will be lost in history, their inspiring achievements will remain in the memory of humanity for a long time to come.



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## CHAPTER 1

### INTRODUCTION

Arab countries, defined in this dissertation as the 22 member states of the Arab League<sup>1</sup>, are witnessing historic transformations. After decades of rule by dominant parties and autocratic leaders, pro-democracy movements are sweeping throughout the region. Starting in Tunisia in late 2010 and early 2011, 23 days of popular uprisings were enough to end the rule of former President Zein El-Abedine Ben Ali after more than two decades in power. In Egypt, 18 days of public protest forced former President Hosni Mubarak to step down from power after almost three decades in office. Similar uprisings are taking central stage, with varying degrees of intensity and regime response, in Libya, Syria, Yemen, Bahrain, and Jordan, with public sentiment and mobilization efforts heating up in other countries.

It is too early to know for sure where these uprisings and the resulting regime changes are heading. However, two observations are clear. First, the failures of Arab governments throughout generations to achieve sustained economic growth, raise standards of living, provide employment opportunities for the ever-increasing rosters of unemployed youth, and ensure acceptable health and social services became beyond the

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1. These countries are: Algeria, Bahrain, Comoros, Djibouti, Egypt, Eritrea, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Kingdom of Saudi Arabia, Sudan, Syria, Tunisia, United Arab Emirates, and Yemen.



ability of Arab societies to tolerate. While the 1990s democracy wave which swept over Eastern and Central Europe missed the Arab world, the fear barrier has now been broken. Arab publics are not only frustrated by government failures, but also by the underlying causes which include corruption, state-security establishments consumed by preserving the incumbent regimes at the cost of societal welfare, as well as political elites perceived as detached from their societies and their aspirations.

The second observation can hardly be missed. These pro-democracy uprisings are bottom-up, created by various segments in Arab societies, with a central role for young people, some of whom have no political affiliation other than the desire for change and the opportunity to express their aspirations and grievances. Technology played an important role in these uprisings. The calls for demonstration were often coordinated through such websites as Facebook and Twitter, and the regimes responded by blocking internet communications and SMS messages. The fact of the matter is that the public space has expanded to include more participants than the traditional political elites, and that demands for participation go beyond economic needs toward expanding opportunities and gaining meaningful presence in a globalizing world. These developments will shape Arab regimes and political economic systems in the decades to come. Whether some regimes will survive is not the point at the moment. The truth is that there are new realities that all Arab countries will have to live by and respond to.

From a different perspective, these uprisings, while affecting all incumbent governments, are still far from affecting the context where they function. For example, Egypt after the ouster of Mubarak will still have to deal with more than 15 million students in the K-12 education system, thousands of schools, and hundreds of thousands

of school headmasters, school administrators, and teachers. The manner in which the new or surviving governments will engage in policy making and implementation is expected to change, but the context of decision making, which include threats to regime survival, long-established bureaucracies, and the interests of teachers and students shaping education policy, and other policies for that matter, are possibly going to survive, at least in the short term.

### Research Interest and Question

This dissertation is in the field of political economy. It addresses topics that are relevant at a time when many Arab countries are reconsidering their public policies in social and economic fields. It started with an observation that was noted in a number of writings about Arab countries; that the center of innovation and leadership in the region has shifted from its traditional hubs in countries such as Egypt to small countries on the outskirts of the Arab world such as Qatar and UAE. This dissertation aims at explaining this shift through an approach that focuses on history, size, and political stability. Through this analysis, this dissertation will shed light on the track of political economic developments in Arab countries and the potential and obstacles for reform in the region.

In order to explore this shift in innovation and leadership among Arab countries, I need an approach – a field where these developments are manifested. In other words, one could discuss the rise of the Qatari Al-Jazeera Channel or the attractiveness of the Dubai model in order to highlight factors in smaller Arab countries that helped drive them to center stage. My approach in this work focuses on education reform.

With change cascading throughout the Arab world, one explanation for these events is the lack of economic opportunities for educated youth because of laggard economic growth. Supporting this argument, prior research has suggested that part of this problem is attributable to education systems. This field can tell us a good deal about the motivators for smaller countries, factors that facilitate reform, and how they were able to bypass obstacles that hindered their larger and more bureaucratically established counterparts from achieving similar reforms.

The reason for choosing the field of education as an entry point for discussing the shift in innovation and leadership among Arab countries started with an eyeball observation regarding the relation between education and economic performance in Arab countries. Education has expanded widely in Arab countries since the 1950s and 1960s, when many of them achieved their independence from Western colonialism. Enrollment rates rose rapidly, and the gender gap decreased significantly. But despite these achievements, economic performance seemed rather independent from human capital. Economic growth in Arab countries has been generally weak, and economic systems have been characterized as either rentier or semi-rentier, in reference to their primary dependence on oil resources and the absence of a solid production base. The interesting point about economic growth in Arab countries is its large level of vulnerability to external shocks, which once more reflects the absence of a productive economic base. These shocks were generally related to oil prices, to the extent that a graph of economic growth in Arab countries will show a zigzag that goes up and down with oil prices. In the modern world of globalization and competitiveness, this model is highly unsustainable.

The title of this work “The Slow and the Swift in the Arab World” reflects my search for why some Arab countries were able to be faster movers toward reform, such as Qatar, hence achieving the leadership role that was once occupied by countries with longer histories and established bureaucracies such as Egypt, which represented models for socio-political and economic reforms during the 1950s and 1960s. The argument, cited by Thomas Friedman in an article in *The New York Times*, is that, in the age of globalization, the faster eats the slower. Back in the 1950s, 1960s, and 1970s, the larger ate the smaller. The larger and heavily bureaucratized Arab countries set the model for other countries in the region. In the age of globalization, the faster is the winner (Friedman 2001).

Logically, the small and the young is expected to be faster. This could give us a general idea behind the noted shift in innovation and leadership in the Arab world. This dissertation aims at taking this observation a step further by using it as a way to contribute to theory regarding the effects of size, time, and political stability on the potential for reform. It also aims at contributing to knowledge on the political economy of growth and reform in Arab countries, a topic which is gaining increasing attention at this moment of intense regional change.

The subtitle of this work “Lessons from the Education Sector” reflects the nature of the question asked in this research. The overall, or umbrella, goal is to understand the reasons behind the observed shift in innovation and leadership in the Arab world. Under this umbrella, I address the relation between education and economic performance, and attempts at education reform, as the access point to understand the reasons behind the fast and slow movements of countries in the Arab world.

The main premise of my investigation into administrative systems and institutions in the field of education in Arab countries is the argument that there are two groups of forces pulling governments in the Arab world in two different directions with regard to education reform. The first group of forces pushes for education reform, and reform in other social and economic fields for that matter, based on accountability and quality. The driving force behind the incentives for reform include the need to cope with the youth bulge, address labor market dysfunctions, and enhance the political regime's legitimacy. There is also the role of the international factor as a catalyst for change and reform of education systems in Arab countries. The importance of this input has increased with the international attention directed to education in the Arab world after 9/11.

Countering these incentives for change and reform is another group of factors related to the effects of history and the regime's time horizon. Older institutions tend to persist for longer, and control considerations and threats to regime survival pull toward maintaining centralized control and outdated educational governance systems. This group of factors has probably been dominant in Arab countries until the recent pro-democracy uprisings. The ability of countries to respond to pressures and opportunities for change, and counter the obstacles, rising from threats to regime survival as well as other domestic and regional politics, determines the ability and speed of reform, and will therefore help us understand who is the slow and who is the swift in the Arab world, and what we can expect regarding the different potentials of the countries in the region.

### Methodology

As highlighted above, this work is question driven. The broad question is: What explains the shift in the center of innovation and creativity among Arab countries toward smaller countries on the outskirts of the Arab world? The drive to answer this question directed research in a multi-disciplinary and multi-methodological direction. One reason behind this multiplicity stems from the need to establish a broad framework for understanding the socio-political and economic differences among Arab countries and to explore how these factors interact in real life. The second reason stems from the field of political economy itself, where the driving factor is to explore the dynamics behind the investment and reinvestment of the society's resources. This nature requires knowledge from various fields of research, including Political Science, Public Policy, Public Administration, Regional Politics, and History.

In order to answer my research question, I use both quantitative and qualitative methods. Quantitative methods are used to shed light on the reasons behind the variation in economic performance among Arab countries. The purpose of this approach is to build the skeleton of variables that will be explored further through qualitative research focusing on the relation between education and economic performance, and the nature of education reforms taking place in two Arab countries: Egypt and Qatar. In the quantitative chapter, I use cross-section time-series regression analysis to highlight relevant variables that could explain the variation in economic growth among Arab countries, focusing on variables related to size, history, and political stability. I also explore the relation between education and economic performance among Arab

countries, and whether the former has an effect on the later, in order to examine the argument that the link between both is weak or even absent.

The qualitative analysis aims at adding colors to the sketch that has been drawn through the quantitative analysis. First, I start by a broad literature review of the factors that led to the absence of an effect for education expansion on economic performance. In this review, I focus on the factors that shaped the interests of the main participants in the education process: parents/students, schools/teachers, and the state. The absence of a clear role for the private sector in shaping these interests reflects the rigidity of the labor market and the dominant role of the state in both the labor and education sectors, which reduces the abilities of the other actors, mainly students, parents, and schools, to direct their attention to responding to the needs of the labor market.

The final two chapters are case studies of education reform in Egypt and Qatar. These chapters are based on a conceptual framework developed by the World Bank to measure the education quality assurance system in Chile (The World Bank 2007, 2009). This framework is based on the premise that quality assurance in the field of education should be based on a number of functions that should be defined and assigned to specific participants in the education system. In addition to assigning all the functions of quality assurance, a successful educational governance system should be based on the separation of policy making and oversight functions; that is, the same actor cannot perform both policy making and oversight functions. Through the analysis of the education quality assurance systems in Egypt and Qatar, I examine hypotheses regarding the effects of history, size, and political stability on the ability and willingness of Arab governments to design an effective quality assurance system in the field of education. Data sources for

these chapters include government documents such as laws and decrees, surfing the websites of governmental bodies in Egypt and Qatar responsible for education, and a number of interviews with people directly involved in the field.

### Three Building Blocks

Throughout this work, one line of thinking links all its parts. This line of thinking is based on the perception that understanding the willingness and ability of political regimes in Arab countries to engage in reform and institutional building requires understanding the regime's time horizon and its sociopolitical and economic contexts. The logic behind this focus is the fact that all Arab countries during the time period of this study are categorized as non-democracies according to a number of democracy indices. Therefore, focusing on the context of elite decision making makes sense in attempting to determine the incentives and handicaps for reform.

From this perspective, I developed three building blocks through a review of the literature from various fields of study: political science, political economy, public administration and policy, and economics. Through this review, I synthesize three groups of variables that act as the links between the parts of this study and the source for hypotheses development and testing. These building blocks are: Exogenous Variables, History, and Political Stability. I use these groups of variables in both the quantitative and qualitative sections of this study. In the quantitative analysis, I use measures in order to assess the effects of these three groups of variables on GDP growth in Arab countries. In the qualitative analysis, I examine the factors leading to memorization-based education systems in Arab countries from a perspective that focuses on the development of interests



among the participants – parents/student, schools/teachers, and the state – in a way that created and continued to sustain this system. The literature reviewed in Chapter 3 is approached from a lens that focuses on exogenous variables, history, and political stability. In the case studies of Egypt and Qatar, I examine hypotheses regarding the effects of size, history, and political stability on the ability and willingness of Arab governments to design an effective quality assurance system in the field of education.

Another guiding principle in this work that is worth mentioning here is a conscious effort to bring research from a number of sources: academia, think tanks, and international organizations such as the World Bank and UNDP. In addition, I was also interested in using research in both Arabic and English. This effort was driven by a perception of the need to enhance interactions between researchers addressing the same phenomena in the Arab region from different perspectives. While this interaction is certainly present, and people tend to go back and forth between the academia, think tanks, and international organizations, I believe that this “revolving door” phenomenon is not as intense as the case, for example, with research on democracy or civil society in Arab countries.

I believe my modest contribution to bringing research from different perspectives together helped me provide a better insight on my research question. For example, the World Bank has developed the conceptual framework I used to compare education quality assurance systems in Egypt and Qatar. The Bank’s purpose in creating this framework was to provide policy advice to the government of Chile. It was not designed to contribute to theory building. However, my use of this framework aims at giving evidence to theories that discussed the relationship between policy making and

implementation on one side, and the effects of population size, history, and political stability on politics on the other.

### Dissertation Outline

This dissertation is divided into five chapters. The first Chapter provides an overview of the socioeconomic situation among Arab countries, focusing on the relation between education and economic performance. It discusses the trajectories of Arab economic development and the main characteristics of Arab economies. It also presents data on education expansion, student performance, and explanations for the apparently weak link between education and economic performance.

Chapter 2 takes this review and develops it into a cross-section time-series regression analysis. The purpose of this analysis is twofold. The first is to highlight factors that affect GDP growth among Arab countries to establish a framework for the later qualitative analysis. The second purpose is to test the relation between education and economic performance in order to examine the claim and evidence that education has no positive contribution to economic growth among Arab countries. This chapter establishes the skeleton or sketch that I will add colors to through the qualitative analysis in the final three chapters.

Chapter 3 takes the results of the first two chapters and attempts to explain them through a broad literature review. In this chapter, I attempt to explain the reasons behind the development of memorization-based education systems in Arab countries that contribute little, if at all, to economic growth. As we probably all do in approaching a large body of literature, I start this chapter by a framework that acts as a lens to “read”

this literature. This lens is based on the three building blocks of this study: History, Exogenous Variables, and Political Stability. Through situating the literature within these categories, I explain in this chapter the incentives guiding the approach of parents/students, schools/teachers, and the state toward education. These incentives, created throughout history, are the driving forces for the creation and maintenance of this system. The continued dominant role of the state, the accumulation of secular over religious curricula throughout the years, the quantitative expansion of education coupled by the inability, or unwillingness, to dedicate more resources to education, and the absent role of market forces in directing the outputs of the education sector all contribute to the maintenance of an outmoded system. This system is further supported by political, economic, and bureaucratic interests that have been forged through the years.

Chapter 4 begins with a discussion of the general organizational structures of the education sectors in Egypt and Qatar, and then presents the conceptual framework that I will use in analyzing and comparing the education quality assurance systems in both countries. As mentioned above, this framework is based on the presence of a number of functions needed for ensuring education quality that need to be defined and assigned to participants in the education system, with the condition that policy setting should be separated from oversight functions. This framework hence focuses on administrative efficiency. It represents the first step needed for quality assurance. The definition of quality functions and assigning them to specific participants, and the separation of policy making and oversight functions, do not guarantee a successful quality system, but they are a necessary first step. The absence of such a system means that reaching an effective education quality system is difficult at best. The reason for choosing this framework is

that it reduces the influence of financial resources. In other words, a comparison between education quality in Egypt and Qatar could seem unfair given that Qatar is much wealthier than Egypt and its population is very small. But the choice of a framework that focuses on the ability to reach administrative efficiency reduces the importance of money compared to political will and the level of resistance to change.

Chapter 5 applies this framework to the education quality assurance systems in Egypt and Qatar. It starts with developing hypotheses about how both countries will apply this framework based on the three building blocks of this work: Size, History, and Political Stability. In this way, I attempt to link the practical and theoretical contributions of this work, and present an explanation for the variation of reform speed and the shift in innovation and creativity in a way that stresses the leadership context and incentives structures.

Finally, the dissertation concludes with reflecting on the reasons behind the variation in reform efforts and socioeconomic outcomes among Arab countries. It suggests a typology among selective Arab countries based on differences regarding history, size, and political stability.

## CHAPTER 2

### AN OVERVIEW OF THE SOCIOECONOMIC SITUATION IN ARAB COUNTRIES

#### Introduction

Dysfunctional education systems which present youth with limited employment opportunities could be perceived as an important motivator for the revolutionary changes taking place across Arab countries. Previous research has noted that education in Arab countries does not have a positive effect on growth. This chapter is a discussion of the achievements and failures of Arab countries with regards to economic performance and education systems.

Arab countries share a number of vulnerabilities and potentials. The trajectory of their social and economic developments since the second half of the twentieth century has been mixed, with spurring successes in achieving growth and high standards on social and economic outcomes for some countries, followed by stagnation and sometimes retreat later on. Within this overall path, there is clear variation in wealth, growth, economic resources, human development, and the foundations of social and political institutions. In this chapter, I review the main characteristics of economic developments, achievements in the field of education, and the relation between both within the Arab context. This part is a necessary introduction for later chapters.

The region as a whole achieved high growth rates during the 1960s and 1970s, a development driven mainly by the oil boom of the 1970s, but had stagnated from the mid-1980s with the collapse of oil prices and until the early 1990s. Some countries in the region have resumed economic growth since the mid-1990s, especially after the rise in oil prices in 1998 (Elbadawy 2002, 2008). This resumption of growth represents an opportunity to understand the potential of the countries in the region, whether the wealth created by the oil boom could be translated into long term growth, and how human capital contributes to growth as compared to other physical and institutional factors. The main observation, for which I will try to develop an answer throughout this work, is that education and economic performance in the Arab world do not seem to be related. While economic performance fluctuated widely since independence, spending on education kept increasing regardless of economic performance (The World Bank 2008).

Table 1 shows the shifts in GDP per capita since the 1960s and until 2003 for selected Arab countries. The table shows that the era of the oil boom (the 1960s and 1970s) witnessed high growth rates in the region, especially given what could be called the “spillover effect” of oil prices to non-oil rich countries where labor remittances, investments, and aid from oil rich Arab countries contribute to growth. After the 1970s, there was a drop in growth rates for almost all countries in the sample. Some countries were able to resume their earlier growth and some did not. However, and despite these variations, in no country was the growth in output sufficient to keep up with labor growth, much less to significantly raise real wages (Richards and Waterbury 2008). This volatility as well as variation in growth directs attention to the important question about whether growth in the Arab world is based on stable foundations and whether the wealth

and accumulation of resources achieved in a number of Arab countries such as UAE and Qatar can be sustained in the future.

Table 1. Growth of GDP Per Capita for Selected Arab Countries, 1960-2003

	1960-1970	1970-1980	1980-1990	1990-2003
Algeria	4.3	4.6	2.7	2.4
Egypt	4.3	9.5	5.4	4.5
Jordan	?	?	2.5	4.6
Kuwait	5.7	2.5	1.3	2.9
Lebanon	?	?	..	4.6
Libya	24.4	2.2	-7	..
Morocco	4.4	5.6	4.2	2.7
Oman	19.5	6.2	8.4	4.3
Saudi Arabia	-	10.1	-1.3	2.1
Sudan	0.7	5.6	2.3	5.7
Syria	4.6	9.9	1.5	4.3
Tunisia	4.7	6.8	3.3	4.6
UAE	-	-	-2.1	4.2
Yemen	-	-	-	5.8

*Note:* Table is from the World Bank Development Indicators (2005). Adopted from: Richards and Waterbury (2008).

The main observation which I try to highlight in this chapter, and contribute to understanding it throughout this work, is that Arab countries represent a unique environment where wealth and human underdevelopment are coexisting side by side. Human underdevelopment could have a number of definitions. The UNDP's composite measure of human development (the Human Development Index) uses a composite measure of education, health, and life expectancy. In the sense used here, human development refers not only to opportunities to receive education, but also contribution to knowledge, creativity, and creating the foundations for long term growth based on human

capital and individual potential. In this sense, Arab countries are clearly lagging behind the rest of the world and behind their own potential (Lord 2008).

There are very rich Arab countries, like UAE and Qatar, high growth countries like Egypt and Jordan, and rich countries that are interestingly low on such social outcomes as literacy and women empowerment like Saudi Arabia. At first glance, this picture seems complicated, or even counter-intuitive. Logically, one would expect that the country is either rich and hence can afford high levels of education quantity and quality for its citizens, or poor and cannot provide these levels. But in the Arab world, we can see wealth side by side with poor measures of education achievement, especially when it comes to quality measures. The Arab Human Development Report 2002 describes this situation by stating that Arab countries are richer more than developed (UNDP 2002).

The question is: why do we have variation in economic performance and wealth, but generally low measures on education achievement? How is education linked to economic performance in the Arab world? Why is this the case or, in other words, how can we explain the link between education and economic performance in the Arab world, which is often described as weak or non-existent (The World Bank 2008)? What are the challenges and opportunities for reform? And how could this relationship be approached in a way that contribute to economic development? My focus is on primary and secondary education given their importance for development, compared to tertiary education which is often taken as more related to the interests of the elites, and the role of these two stages as links to higher levels of education.



There has been an ongoing question in the literature, which was also echoed in studies about Arab countries, regarding whether institutions or policies are responsible for growth. This study argues that either or both can be engines of growth, but this is not the focus here. Growth can be temporary if it is not based on human capital. In the current international environment, production and value added are increasingly based on human skills and education. In this sense, economic institutions and reform policies, like legal and financial reforms, can be very important in putting the economy on the initial track of growth. But long term growth and economic and political stability need more than structural reforms, stable economic development requires being able to contribute to the world economy and be able to compete globally. This requires a population able to provide added value, absorb technology, and create knowledge.

Without these foundations, the economy will be fluctuating under the mercy of international primary resources' prices, particularly oil, and could even be dependent on hot money that enters the capital market seeking quick profits without real contribution to economic value added. Institutions could ameliorate these effects by guaranteeing a continuing flow of investments and providing a stable arena for economic transactions and production. However, when this environment is reliant on foreign labor, as the case in many Arab Gulf countries, political stability could be at risk, as will be discussed later. In addition, the large state bureaucracies and expansion of the role of the state in most Arab countries, including Gulf countries, means that the use of human capital is below potential. There is evidence that human capital employed in the public sector does not provide as much added value to the economy as human capital employed in the private sector (The World Bank 2008).

This dissertation is based on a political economy approach to understand the socio-economic situation among Arab countries and understand the reasons behind variations among these countries. Political economy focuses on the decision to invest and reinvest the society's resources. The main focus of political economy is the use of political power for economic ends, and how politics affect economic decision making (Ali 2008). The building blocks of this work are exogenous variables, history, and leadership/political stability. In the coming chapter, I will attempt to understand the reasons behind the variation among Arab countries within a perspective that focuses on the role of exogenous variables in shaping the time horizon of the political elite in power and shaping institutions. Exogenous variables are defined as variables which do not fall directly under the control of the political regime in power. History plays an important role especially in institution creation. In this chapter, I start by portraying the main elements of variations in education and economic performance among Arab countries.

The variation among Arab countries could help us gain both theoretical and practical insights. Theoretically, it is interesting given the many similarities among Arab countries to understand the reasons behind the variation in their economic performance. These similarities include having majority Sunni Muslim populations<sup>2</sup>, a history of colonialism<sup>3</sup>, low rankings on democracy indices, and common cultural heritage facilitated by common language and trade since early civilizations. Arab countries also share common vulnerabilities resulting from imposed borders, political tensions, and

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2. Shiites are a majority only in Iraq and Bahrain, and they form a plurality in Lebanon.

3. With the exception of Saudi Arabia and Yemen, all other Arab countries were subject to colonialism.

minority problems. Following the performance of Arab economies since the post-independence era to the present could also provide helpful insights. However, the lack of data and questions regarding data quality precludes this endeavor<sup>4</sup>. Instead, I will provide in this chapter an overall portrayal of development in the economy and education inputs and outputs among Arab countries and then examine the period from 2001 to 2006 in the coming chapter. This period represents a time of economic revival and it could be interesting to see how exogenous variables shaping leadership and institutions, and history are affecting growth, and what the main foundations of this growth are.

Practically, sustainability of growth is arguably more important than achieving temporary revival that could be based on certain capital movements or selling public assets. With a huge youth bulge in the Arab world, resulting from a larger proportion of people in the work age, sustainable growth is important to make use of this resource which represents an opportunity and avoid possible negative political and social repercussions if the efforts of these young people are not directed toward productive purposes.

Now I will move to highlighting the broad lines of the achievements of Arab countries on economic and social fronts, where they achieved success, where they failed, and where variations existed within the region's countries.

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4. Annual data on economic performance and other indicators such as spending on education and enrollment in Arab countries are lacking in such databases such as the World Development Indicators and UNESCO website. This precludes attempts to follow annual developments in these countries. More importantly, the main source of data for international organizations such as the World Bank and International Monetary Fund are the governments of the countries themselves. Given the generally low standards of accountability and transparency in Arab countries, these measures could arguably be described as unreliable or at least questionable.

The Economic Story: Volatility, Oil Dependency,  
and Unsatisfactory Growth

As previously noted, the Arab region as a whole achieved high growth rates during the 1960s and 1970s, but had stagnated from the mid-1980s with the collapse of the oil boom and until the early 1990s. Some countries in the region have resumed economic growth since the mid-1990s, especially after the rise in oil prices in 1998 (Elbadawy 2002; 2008). The overall growth performance in the region has been mixed and characterized by higher volatility compared to other developing regions. Declining from heights averaging 8.7% during the 1970s, growth rates tumbled to an average of 1.5% during the 1980s. Toward the end of the 1980s, which has been described as a lost decade for Arab countries, a number of countries embarked on programs for economic reform and structural adjustment with considerable variance in the pace and depth of these reforms. As a result, GDP growth in the Middle East and North Africa (MENA) region picked up during the 1990s, averaging 3.9%. In the 2000s, a wider range of reforms were undertaken and, despite the slow pace of these reforms, the growth pay-off was reasonable, especially given the rise in oil prices. Growth rates averaged 5.1%, but the region remained lagging in terms of economic growth compared to other regions (Mottaghi 2009). Figure 1 shows the fluctuation in GDP growth rates in MENA.

Volatility has been a central characteristic of economic performance in the region. While Figure 1 shows data for decades since 1971, annual data shows an even higher degree of unpredictability. The Arab Human Development Report 2009 pinpoints this volatility by describing the annual growth curve in the Arab region as riding a rollercoaster, which swings with changes in oil prices. Makdisi et al. (2005) also found

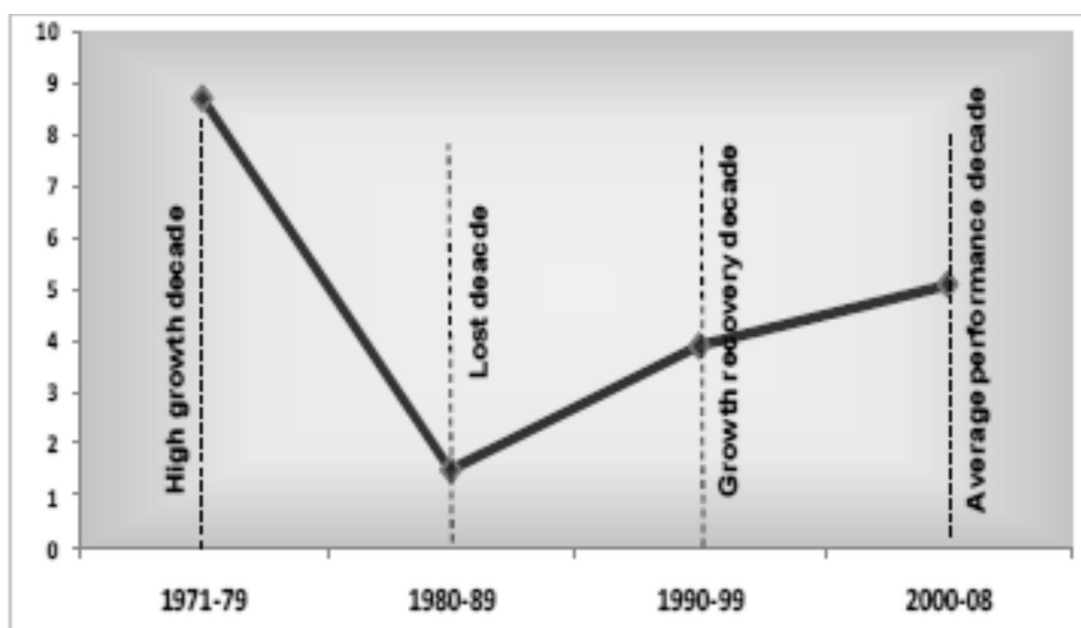


Figure 1. GDP Growth Rates, in percentage, in MENA countries (1971-2008). Source: Mottaghi 2009.

that capital in the MENA region is less efficient, the natural resource curse more pronounced, openness to trade less beneficial to growth, and the impact of adverse external shocks higher.

Economic volatility in MENA countries is almost twice the average of other developing countries between 1970 and 2008. Some countries in the region are more diversified than others, but the majority of countries still have narrow economic bases with the majority of economic productions concentrated in certain sectors. Oil represents one important dominant sector in a number of these countries. The narrow economic base is a main reason for increasing the region's volatility to external shocks. The highest volatility during this period could be found in the Gulf Cooperation Council (GCC)

countries<sup>5</sup>, which also rely more heavily on oil exports to finance their economies (Mottaghi 2009).

From this perspective, oil has been a source of wealth but had also represented a source of a “curse” in the sense that it encouraged the deference of economic reforms, increased dependency on a primary commodity, and created weak structural foundations for Arab economies. Many Arab countries have turned into increasingly import oriented and service based economies. The types of services found in Arab countries fall at the low end of the value adding chain, contribute little to local knowledge development, and lock countries into inferior positions in global markets (UNDP 2009). This could explain the empirical finding that, generally speaking, trade has little effect on growth in Arab countries (Makdisi, et al. 2005). The import and service orientation of Arab economies that was encouraged by oil came at the expense of agriculture, manufacturing and industrial production (UNDP 2009).

The Arab Human Development Report 2009 argues that oil had possibly led to de-industrialization in Arab countries, and that these countries were less industrialized in 2007 than in 1970. This includes Middle Income countries with a relatively diversified economic base in the 1960s, such as Algeria, Egypt, Iraq and Syria. It is true that some countries have achieved noticeable progress in industrial development, such as Jordan, Oman, Tunisia, and UAE, but, in general, the contribution of manufacturing to GDP is still anemic, even in Arab countries that have witnessed rapid industrial growth, and especially when compared to the shares of other developing countries such as the East

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5. The Gulf Cooperation Council (GCC) is composed of: UAE, Bahrain, Saudi Arabia, Oman,

Asian economies. Moreover, all country groups appear to be converging on the modest regional average, which was below 10 per cent in 2007, from an initially diverse sub-regional industrial base in 1970 (UNDP 2009).

Oil also had political effects. These effects include maintaining non-democratic regimes and corrupt practices, and supporting traditional values. The control of the state over oil wealth strengthened and helped expand the economic and political roles of the state. This control, in addition to the nature of oil production, concentrated the giant family financial consortiums on the one hand and the humble savings of the large number of Arab guest workers in the Gulf. In both cases, investments have been chiefly directed to the property, housing, tourism, and foreign exchange sectors. Surpluses have not been deployed effectively to build local productive capacity so as to meet the challenges of globalization and the post-oil era (UNDP 2009).

An eyeball review of the situation in the region shows that, while it is possible to attribute the variation in wealth to oil resources, growth potential can hardly be attributed solely or even primarily to oil. The resumption of growth in some Arab countries since the 1990s allows for a better understanding of the political economy of growth and whether wealth can be translated into long term growth, building human capital, and contributing to global knowledge. Tables 2 and 3 show GDP per capita levels and GDP per capita percentage growth among Arab countries between 1996 and 2006 by OPEC membership. The tables show that despite large variation between OPEC and non-OPEC

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Qatar, and Kuwait.

members in terms of the level of GDP per capita, growth performance does not seem different between the two groups of countries.

Table 2. GDP Per Capita in Arab Countries by OPEC Membership (1996-2006)

	Observations	Mean	Standard Deviation	Minimum	Maximum
OPEC	58	28991.5	18930.54	5734	70716
Non-OPEC	153	5630.412	6582.537	602	28069

*Note:* Adapted from World Development Indicators.

Table 3. GDP Per Capita Growth in Arab Countries by OPEC Membership (1996-2006)

	Observations	Mean	Standard Deviation	Minimum	Maximum
OPEC	52	.0166577	.0387459	-.0567503	.1391001
Non-OPEC	139	.0164898	.0327693	-.1771688	.0855708

*Note:* Adapted from World Development Indicators.

Looking at GDP per capita, the mean for OPEC countries is more than 5 times that of non-OPEC countries. However, when we look at growth rates, there seems to be less variation between the two groups, although the variation in growth rates is still wide. This observation could be interpreted to mean that variation in wealth could be, at least in part, attributed to oil wealth. But understanding variation in growth rates needs a different approach. My hypothesis is that there are underlying dynamics in the political system that shape the time horizon and growth orientations of the regimes in power. In other words, the creation of wealth in some Arab countries could be attributed to oil revenues, but oil did not have the same effect on economic performance and growth, and that other



important regime dynamics contributed to the variation in economic performance among these countries.

Arab economies are therefore performing in a way that leads one to conclude that wealth does not necessarily lead to long term growth, and that the sustainability of reforms in some countries can be shaky if not translated into competitive economic performance and utilization of human and material capital. These are the topics which will occupy the main attention in the coming chapters.

Despite variations in evaluating the growth pattern in the Arab countries, there seems to be an agreement that economic performance was overall rather disappointing in the region since the mid-1980s (Elbadawy 2002), despite the fact that the 1960s and 1970s witnessed large economic growth. Between 1965 and 1985, economic growth in Arab countries was among the highest in the world. This growth could in part be attributed to oil wealth, but could also be attributed to the nature of the social contract in Arab countries after independence. These contracts included redistribution, expanding the role of the state, state planning, import substitution, and a perception of the political arena as an expression of the organic unity of the nation rather than a place for political contestation and interest aggregation (Ali 2008). These contracts paid in terms of growth during the early stages in the post-independence era but their drawbacks started to appear as early as the late 1960s and early 1970s (Richards and Waterbury 2008). Despite the many reforms that took place in Arab countries especially since the 1990s, the pattern established in the postindependence period could still explain a lot regarding economic performance, the nature of the economy, state-society relations, and nature of the educational system.

Despite the overall disappointing performance of Arab countries since the mid-1980s, some of them did better than others, which justifies a discussion of the reasons behind the variation of economic performance among these countries. In terms of GDP per capita growth between 1970 and 2000, some countries (Tunisia, Egypt, Oman, Syria, Jordan, and Turkey) have done relatively well, whereas others such as Djibouti, Iraq, Kuwait, Libya, and the UAE have done especially badly. It is important to keep in mind here that my purpose from studying the reasons behind variation in economic performance among Arab countries is to highlight factors that need further attention in the qualitative study addressing the educational system and its relation to economic performance. After all, GDP per capita growth by itself does not tell much about important attributes necessary for long term growth such as education, institutional quality, openness, etc. In other words, GDP per capita growth can result from selling public assets or a sudden influx of foreign capital as a result of conflict in a neighboring country. Such change in the numbers describing GDP growth clearly does not help much in understanding real economic performance and the potential of Arab countries.

In addition to a high degree of volatility, which represents a main characteristic of Arab economies (Mottaghi 2009; Nugent and Pesaran 2007), Makdisi, Fattah et al. (2005) also found that capital in the MENA region is less efficient, the natural resource curse more pronounced, openness to trade less beneficial to growth, and the impact of adverse external shocks higher. These issues will resurface and will be discussed in the following chapter. It is also important to note that the diversity among Arab countries also include economic structures related to production, where the distinction is usually based on the degree of diversification in production (Ali 2008; Elbadawy 2002). There is

also the distinction between Arab countries based on oil wealth (Limam 1998). This distinction, based on oil wealth, reflects differences in patterns of institutional development and created different perceptions of the importance of the role of education, issues that will be discussed in more details in Chapter 3.

### Education: Quantitative Success with Limited Economic Results

The purpose of this section is to review the main achievements of Arab countries in the field of education and areas where they failed. During the Middle Ages, the Arab world was the hub of science and knowledge when Europe was in the Dark Ages. However, the wheel turned against the Arabs and Muslims due to political turmoil, weakness of the state authority, and ideological stagnation. Toward the end of the 15<sup>th</sup> century, the Arab and Muslim world started to cease being the center for knowledge and civilization, and Europe started to take over the torch of civilization, modernization, and political reform.

The decay of the Islamic Empire opened the door for Western colonialism, which intensified during the 19<sup>th</sup> century and culminated in the early 20<sup>th</sup> century when most Arab countries fell under some kind of Western imperialism (with the only possible exception of present-day Saudi Arabia and Yemen, which became united only in 1990). Colonialism was not the first encounter between the Arab and Muslim world on the one hand, and the West on the other. Culture and trade relations, and even wars, started since early civilizations. However, colonialism established systems that created antagonism among the local populations. The reaction of the post-colonial regimes to these systems

generated path dependency that we need to understand in order to interpret the current status of education in the Arab world and its relation to economic performance.

An analysis of the historical context of the development of educational systems in Arab countries will occupy attention in Chapter 3. It is enough here to say that the general trend among colonial administrations in the region was to limit Western-style education to a select few who were usually foreigners or belonged to the political elites, who were protégés of the occupiers. As a result of this general setting, Arab countries gained their independence with limited numbers of educated people. Mass education was thus perceived as a way to reverse the colonial track and was an important part of the social contract between the new political regimes and their populations. This mass education was needed to support the expanded role of the state, which was also deemed necessary given the perception, prevalent since before independence, that the implementation of the aspirations for political and economic independence will require a strong state that will lead the path of independence (Richards and Waterbury 2008).

It is therefore clear that economic, political, and historical realities that could be dated to the independence era played an important role in shaping the educational systems in the region. The institutions, relations, and “contracts” created during this era arguably have important roles until the present, especially given the political stagnation that has been the norm in a number of countries of the region since the second half of the 20<sup>th</sup> century.

Discussing education outcomes is not an easy task. While economic performance can be measured directly in terms of GDP, there is no such clear-cut approach to measuring educational outcomes. The goals of any education system are diverse. They

range from providing skilled graduates to the labor market to building a civic character and fostering national unity. In discussing the quality of education system in the Arab world, one could focus on both quantity and quality. Quantitative measures, in terms of such measures as student enrollment and average years of schooling, are an important starting point. After all, the education system should first be able to get children into school in order to develop their skills and provide the mix of skills in sufficient numbers for the labor market.

I will use the following measures to discuss the quality of educational outcomes in the Arab region: (1) quantitative measures; (2) student achievement; and (3) links to business, or the nature of the labor market. Other measures of quality such as patents and the percentage of students joining world-class universities could also be helpful, but data are very scarce for these measures in Arab countries. It is important to note before proceeding to this discussion that the nature of the effect of education on economic performance has received much attention in the literature. Although it makes a logical sense to argue that education will have a positive effect on national economic growth, there is no agreement about this point so far. I will review in more detail the literature on education and economic performance in the next chapter. It is enough here to say that while there seems to be agreement regarding the positive effects of education on individual income, the spillover effect of this relationship is not clear on the national level.

Pritchett (1996) found the impact of the growth of human capital on conventional nonregression growth accounting measures of total factor productivity to be large, strongly significant, and negative. This conclusion is even clearer in Arab countries. In a

study of the effect of education on economic growth in 58 countries, Lau, Jamison et al.(1991) found a negative relationship between education and economic growth in the African region, Middle East and North Africa, insignificant relationship was found in the case of Latin America and South Asia, and a positive and significant relationship in the East Asia region. Addressing this relationship from a political economy perspective will occupy the main attention in this study.

Discussing these points is not meant to be exhaustive, and each of them could be subjects for separate studies. My purpose here is to present a broad brush of the outcomes of education in the region to help us understand the results found in the literature regarding the relationship between education and economic performance in the region as well as the results of the empirical investigation which will be discussed in the next chapter.

#### A Quantitative Account of Educational Achievements in Arab Countries

During the 1980-2000 period, the region's gains in education have been faster than could be explained by its initial levels of income and education and by its income growth and public spending profile (The World Bank 2008). An account of the quantitative achievements of Arab countries in terms of education achievement could start by their positions on the human development indicators. The UNDP's measures of human development are based on a perception that this term should involve more than mere economic growth to include expanding opportunities for people. The composite measure is therefore based on life expectancy, education, and health measures.

It is interesting to note that although poverty reduction and GDP growth have effectively stalled starting the 1980s and at least until the mid-1990s, Arab countries continued to expand education access and maintained their track of reducing the gender gap (The World Bank 2008). A report addressing 10 MENA countries (Algeria, Egypt, Iran, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, and Yemen)<sup>6</sup> found that whereas these countries' per capita income diverged dramatically from their comparators<sup>7</sup>, the region's social indicators converged with those of comparators over the period 1980-2000 (Iqbal 2006).

The UNDP's Human Development Report 2009 classified 8 Arab countries as either Very High or High Human Development countries, while 12 countries were classified as Medium Human Development. Only Eritrea was categorized as Low Human Development, and Iraq was included within the "Other Countries" category. Table 4 shows the distribution of Arab countries among the different categories of countries in the Human Development Report 2009 along with their populations and total GDP in 2009, or the most recent years were the figures for 2009 are not available.

This table shows that the 3 small monarchies of Kuwait, Qatar, and Emirates, which constitute only 2.74 percent of the populations in Arab countries also had 20.5 percent of the total GDP produced in Arab countries at constant 2000 US dollars (the

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6. These countries are also all Arab except Iran.

7. The comparator countries in this report are: Angola, Bolivia, Brazil, Cameroon, Chile, Colombia, Costa Rica, Côte d'Ivoire, Dominican Republic, Ecuador, El Salvador, Ghana, Guatemala, Guinea, Haiti, Honduras, Indonesia, Jamaica, Republic of Korea, Malaysia, Nicaragua, Papua New Guinea, Paraguay, Peru, Philippines, Sri Lanka, Thailand, Turkey, República Bolivariana de Venezuela, and Zimbabwe.

Table 4. Arab Countries by HDI Ranking in 2009, Population, and Total GDP

	Population	GDP (constant 2000 US \$)	Population (% Total)	GDP (%) total)
<u>Very high HD</u>				
Kuwait	2,728,041	60,155,863,040 <sup>a</sup>		
Qatar	1,280,862	26,079,303,680 <sup>c</sup>		
UAE	4,484,199	107,029,020,672 <sup>a</sup>		
Total	8,493,102	193,264,187,392	2.74	20.50
<u>High HD</u>				
Bahrain	766,926	10,709,482,496 <sup>c</sup>		
Libya	6,276,632	48,578,945,231		
Oman	2,785,361	26,750,902,272 <sup>a</sup>		
Saudi Arabia	24,645,686	252,077,619,608		
Lebanon	4,139,281	23,701,812,641		
Total	38,613,886	361,818,762,248	12.472	38.40
<u>Medium HD</u>				
Jordan	5,906,043	14,007,358,427		
Tunisia	10,326,600	28,500,700,822		
Algeria	34,361,756	75,277,743,316		
Syria	21,226,920	27,369,925,685		
Occupied Palestinian Territories	3,837,957	3,775,940,864 <sup>c</sup>		
Egypt	81,527,172	145,465,059,215		
Morocco	31,228,981	55,274,601,233		
Comoros	643,571	237,840,740		
Yemen	23,053,462	12,864,362,892		
Sudan	41,347,723	22,002,151,424		
Mauritania	3,200,288	1,499,116,647 <sup>b</sup>		
Djibouti	847,732	719,375,086		
Total	257,508,205	386,994,176,351	83.17	41.04
<u>Low HD</u>				
Eritrea	4,996,204	736,734,461		
Total	4,996,204	736,734,461	1.61	0.078
Overall Total	309,611,397	942,813,860,452	100.00	100.00

*Note:* HD = Human development. Percentages are approximated. Figures for population and GDP are of 2008. GDP figures are of 2009 unless otherwise specified.

<sup>a</sup> Figures are for 2006

<sup>b</sup> Figures are for 2007

<sup>c</sup> Figures are for 2005



figures for GDP on Kuwait and UAE were only available in 2006, the figures for Qatar were available for 2005). The large wealth of these monarchies which could be attributed at least in part to oil but also to stable institutions and trade openness, combined with small populations, allowed these countries to rank among the Very High Human Development countries in 2009. In this sense, part of the accumulated wealth was invested in human development as measured by the Human Development Index. It remains to be seen whether this investment has gone beyond quantitative expansion of opportunities toward contribution to knowledge and global development. Attempting to understand these relations needs both quantitative and in-depth qualitative analyses.

It is also interesting to note that the countries in the High Human Development category constitute a relatively diverse group. It includes three monarchies (Bahrain, Oman, and Saudi Arabia) and two republics (Libya and Lebanon). Saudi Arabia and Libya are the only OPEC members in this group. Bahrain and Oman could be considered oil rich, but their economies are more diversified and less reliant on oil. Lebanon is a generally poor country on natural resources and has been, throughout long periods of its history, marred with conflict and sectarian violence. While procedurally more democratic than most other Arab countries, the political process in Lebanon is more controlled by ethnic and religious loyalties rather than by real political choices. Together this group has 12.47 percent of the region's population and 38.4 percent of its GDP.

Twelve Arab countries are categorized in the Medium Human Development group. There are two main points to note among this group. The first is that Palestine (West Bank/Gaza) occupies a position among this group, which is actually above Egypt and Morocco. The World Bank (2008) noted this situation, in which the territories

fighting for independence and marred by internal violence and Israeli aggression achieved impressive accomplishments on education. The same observation holds for Sudan. The situation in Palestine could be attributed to international donor agencies as well as the role of civic unity created by the presence of occupation. Education in this sense could be perceived as a tool for nation building and reversing the effects of occupation. Similar perceptions existed in a number of Arab countries in the post-independence era during the 1950s and 1960s. I will discuss this situation further in Chapter 3.

From another quantitative perspective, Arab countries have also achieved significant progress on expanding access, guaranteeing equity, and reducing the gender gap. I will discuss these points below.

### Expanding Access

This could take place through increasing spending, years of schooling, and completion rates. The MENA region does well in terms of spending on education compared to East Asia and Latin America. Historically, spending on education has increased faster than economic growth (The World Bank 2008). Table 5 shows the figures of spending on education as a percentage of GDP for a sample of Arab countries. Most countries show a consistent trend with regard to education spending.

Most countries in the region, rich and poor, allocate more than 20 percent of their budgets to education. This group includes countries as diverse as Saudi Arabia, UAE, Tunisia, Libya, Algeria, Yemen, Morocco, and Djibouti. A similar number of countries allocate less than 15 percent of their budget to education, including Oman, Jordan,

Table 5. Spending on Education as Percentage of GDP in a Sample of Arab Countries

	1965–1974	1975–1984	1985–1994	1995–2003
Algeria	6.2	6.1	7.2	6.1
Bahrain	-	3.3	4.1	3.6
Djibouti	-		3.3	5.7
Egypt	4.7	5.4	4.8	5.6
Iraq	-	4.4	4.4	-
Jordan	3.2	5.2	6.1	6.4
Kuwait	-	4.1	7.1	6.3
Lebanon	-		2.0	2.9
Libya	-	5.2	8.4	-
Morocco	3.4	6.3	5.6	5.9
Oman	-	2.1	3.6	3.9
Qatar	-	3.6	4.0	-
Saudi Arabia	3.6	6.7	7.2	6.3
Syria	3.3	5.4	4.3	3.2
Tunisia	6.2	5.2	5.9	6.8
United Arab Emirates	-	1.3	2.0	1.7
West Bank and Gaza	-	-		9.5
Yemen	-	-	5.6	5.8

*Note:* Adapted from the UNESCO Institute for Statistics through EdStats Data Query System (accessed in June 2006), UNESCO Statistical Yearbooks and Statistical Appendix, except for the following data: Algeria 1995: Ministry of National Education, Ministry of Finance, and National Office for Statistics through Banque Mondiale 2005; Egypt 1990: Ministry of Finance through World Bank 2002b; 1995–1999: Ministry of Finance, Egypt; Lebanon 1998: UNDP 2003. Yemen 1997 1999: Ministry of Finance. Adopted from: The World Bank 2008. When data are not available in a given year, data from the year closest to that year is used. Averages are based on data for more than four points, except for the following data: Bahrain 1995 2003: average of 1995, 1996, and 1997. Libya 1975–1984: average of 1975, 1980, and 1984. Syrian Arab Rep. 1995–2003: average of 1995, 1996, and 1997. Yemen 1985–1994: average of 1993 and 1994.

Lebanon, Bahrain, Kuwait, Syria, West Bank and Gaza, and Qatar (in some of them, however, the private sector is more active, as will be discussed below). In Saudi Arabia, for example, education spending as a proportion of overall spending tripled from 1970 to 2000: this could hardly be affiliated with either economic growth or the price of oil. In Algeria, however, economic constraints did appear to dampen spending on education. These examples and general trends show that spending on education in Arab countries, as in other regions of the world, is motivated by social demands rather than directly by the state of public finance (The World Bank 2008).

In terms of public expenditure per pupil, MENA countries also spend more per student on average at all levels of education than do the sample of comparator countries from Southeast Asia and Latin America. But the pattern of spending in MENA shows bias toward higher levels of education. This pattern of spending favors children in families of higher social class, who are likely to send their children to university.

The high spending on education as percentage of GDP was translated into higher enrollment in the region. The majority of MENA countries were able to achieve almost universal enrollment in primary education and even completion of fifth grade as a percentage of the age cohort. Table 6, from “The Road Not Traveled: Education Reform in the Middle East and North Africa,” shows high rates of enrollment in select Arab countries. However, the repetition rate remains relatively high (The World Bank 2008). This is arguably a symptom, rather than a cause, for the low quality of education.

With some exceptions, mainly Djibouti, Saudi Arabia, and Yemen, MENA countries are educating most young people, both boys and girls, at the primary level. It is interesting to note that in the case of Saudi Arabia, literacy is high despite the low

Table 6. Access to Primary School Education: Net Enrollment Rate, Repetition Rate, and Pupils Reaching Grade Five, 1970–2003

	1970			1985			2003		
	NER	Repetition	Grade 5	NER	Repetition	Grade 5	NER	Repetition	Grade 5
Algeria	76.6	12.5	85.5	86.0	7.5	93.6	97.1	11.8	94.4
Bahrain	70.6	-	-	96.2	8.6	86.5	96.8	3.2	99.9
Djibouti	-	10.7	81.5	31.3	12.5	91.6	32.9	10.4	-
Egypt	62.8	4.5	80.6	83.7	1.5	97.4	98.3	4.0	98.6
Iraq	55.4	20.6	73.7	93.1	20.8	84.0	87.7	8.0	-
Jordan	78.6	4.1	78.9	94.1	5.4	91.2	101.1	0.5	98.8
Kuwait	60.6	15.6	-	86.7	5.2	-	86.0	2.5	-
Lebanon	-	-	-	77.8	-	-	93.2	10.1	97.6
Libya	85.7	25.8	90.7	96.1	-	-	-	-	-
Morocco	39.1	29.8	65.8	60.7	19.8	68.9	92.0	13.8	75.6
Oman	27.1	9.3	74.0	66.4	11.7	93.5	77.9	0.8	97.6
Qatar	71.9	23.7	96.7	91.1	10.7	98.8	89.8	-	-
Saudi Arabia	32.4	15.2	82.6	50.9	12.4	93.3	53.1	4.2	93.6
Syria	69.5	10.9	88.9	94.7	7.5	95.5	98.1	7.5	-
Tunisia	75.6	29.2	67.8	93.1	20.4	86.6	97.2	9.2	96.5
UAE	-	15.2	99.7	76.5	5.7	87.9	71.2	2.2	94.7
West Bank and Gaza	-	-	-	-	-	-	86.3	0.2	-
Yemen	-	-	-	51.7	-	-	66.8	5.5	67.3

*Note:* Adapted from the Statistical Appendix and UNESCO Institute for Statistics through World Bank EdStats Data Query System (accessed in June 2006). The World Bank 2008. All values are expressed as percentages. When data are not available for a given year, we used data for the year closest to that year. Djibouti: repetition rate in 2003 is only for public schools. West Bank and Gaza: net enrollment rate (NER) is for basic education (from grades 1 to 10).

enrollment rates. This is attributed to the role played by local mosques and local Koranic institutions such as Koranic schools that teach children the basics of reading, writing, and mathematics (The World Bank 2008).

Similar progress has been made with respect to the proportion of the age cohort attending secondary school and university. Table 7, also from the abovementioned report,

shows that the MENA region was able to increase enrollment at the secondary school level by almost threefold between 1970 and 2003 (The World Bank 2008).

Table 7. Percent Gross Enrollment Rates in Secondary and Tertiary Education, 1970–2003

	1970		1985		2003	
	Secondary	Tertiary	Secondary	Tertiary	Secondary	Tertiary
Algeria	11.2	1.8	51.4	7.9	80.7	19.6
Bahrain	51.3	1.4	97.2	12.8	98.8	34.4
Djibouti	6.6	-	11.7	-	21.5	1.6
Egypt	28.4	6.9	61.4	18.1	87.1	32.6
Iraq	24.4	4.8	53.8	11.5	42.0	15.4
Jordan	32.8	2.1	52.2	13.1	87.4	39.3
Kuwait	63.5	4.0	90.9	16.6	89.9	22.3
Lebanon	41.5	21.0	60.6	27.8	88.7	47.6
Libya	20.8	2.9	58.8	9.2	103.9	56.2
Morocco	12.6	1.4	35.4	8.7	47.6	10.6
Oman	0	-	26.5	0.8	86.4	12.9
Qatar	36.3	4.5	82.3	20.7	96.8	19.1
Saudi Arabia	12.1	1.6	40.1	10.6	67.8	27.7
Syria	38.1	8.3	58.2	17.1	63.2	-
Tunisia	22.7	2.6	38.9	5.5	81.3	28.6
UAE	21.8	-	54.7	6.8	66.5	22.5
West Bank and Gaza	-	-	-	-	93.6	37.9
Yemen	-	-	-	-	45.9	13.2

*Note:* Adapted from the Statistical Appendix and UNESCO Institute for Statistics through World Bank EdStats Data Query System (accessed in June 2006). The World Bank 2008. When data are not available for a given year, we used the year closest to that year. Libya: Secondary and tertiary gross enrollment rates (GERs) in 2003 are from 2002. United Arab Emirates: Tertiary 2003 data are from 2002. Qatar: Tertiary 1970 data are from 1975. Brazil: Tertiary 1985 data are from 1990.

Increased enrollment is expected to increase the average years of schooling. Table 8 shows the average years of schooling for a sample of Arab countries compared to other regions (The World Bank 2008). This table shows that, as of 2000, the average years of

schooling for the Arab countries included is below all other regions except sub-Saharan Africa and South Asia. However, the region has the highest growth rates, which could be attributed to its lower starting point.

Table 8. Average Years of Schooling for Population Aged 15 Years and Above in a Sample of Arab Countries 1960–2000

Country/ Region	1960	1965	1970	1975	1980	1985	1990	1995	2000	Growth Rate %
Algeria	0.98	1.04	1.56	2.01	2.68	3.46	4.25	4.83	5.37	4.65
Bahrain	1.04	1.58	2.78	3.23	3.62	4.06	4.97	5.50	6.11	4.07
Egypt				1.55	2.34	3.56	4.26	4.98	5.51	4.10
Iraq	0.29	0.81	1.36	1.85	2.66	2.53	3.27	3.74	3.95	2.63
Jordan	2.33	2.74	3.25	3.77	4.28	5.23	5.95	6.47	6.91	2.82
Kuwait	2.89	2.88	3.13	3.37	4.53	5.43	5.75	5.96	6.22	2.31
Syria	1.35	1.77	2.15	2.84	3.65	4.47	5.11	5.48	5.77	3.80
Tunisia	0.61	0.94	1.48	2.27	2.94	3.34	3.94	4.53	5.02	5.16
Sudan	0.41	0.50	0.62	0.83	1.14	1.34	1.64	1.93	2.14	4.36
Arab Countries	1.12	1.02	1.43	1.75	2.44	3.21	3.65	4.41	4.83	4.17
World (107)	4.64		5.16		5.92		6.43	6.44	6.66	0.91
Developing Countries (73)	2.05		2.67		3.57		4.42	4.79	5.13	2.54
Sub-Saharan Africa (22)	1.74		2.07		2.39		3.14	3.39	3.52	1.78
Latin America (23)	3.30		3.82		4.43		5.32	5.74	6.06	1.53
East Asia (10)	2.83		3.80		5.10		5.84	6.35	6.71	2.18
South Asia (7)	1.51		2.05		2.97		3.85	4.16	4.57	2.81

*Note:* Based on Barro and Lee (2000: 3, table 4). Adopted from Ali 2008.

However, this quantitative expansion remains incomplete. High rates of illiteracy, especially among women, continue to exist. Higher education is characterized by

decreasing enrollment, and public spending on education has declined since 1985. In addition, despite the impressive expansion in school enrollment and average years of schooling, enrollment in the MENA region is still lower than in East Asia and Latin America (The World Bank 2008).

The development of enrollment in the region can tell us something about the weak link between education and economic performance. For one, the expansion of enrollment did not follow a progressive track of expanding enrollment in primary schooling followed by secondary, and then tertiary. In Egypt, for example, the expansion of secondary and higher education was ahead of full enrollment at the lower levels of education (The World Bank 2008).

This is clearly in contrast with other cases in East Asia. The expansion of education in East Asia was pursued as a response to expansion of certain economic sectors. In the majority of MENA countries, expansion of enrollment took place without a corresponding increase in new job opportunities in the more dynamic sectors of the economy. For example, in China since 2001, university enrollment has expanded by almost 20 percent of the age cohort following a long period of high growth. Similarly, the Republic of Korea's higher education system did not begin to grow until after almost 15 years of rapid economic growth, and it was mainly supported by private funding. The expansion of education in Latin America was connected to the demand for labor, and the expansion of secondary and higher education in Latin America was in response to higher demand in Brazil, Chile, Colombia, and Mexico, but was far ahead of economic needs in other countries, such as Peru. In fact, in Brazil and Mexico, university expansion seems to be lagging behind economic needs (The World Bank 2008).



There is another problem often addressed in the literature with regard to school enrollment in Arab countries. That is, the modest levels of enrollment in science and technology fields in the region in higher levels of education. In some countries, this is a result of restrictions on access to these faculties, such as the case in Egypt. In contrast, no such restrictions are imposed on enrollment in social sciences and humanities. In Djibouti, Egypt, Morocco, Oman, Saudi Arabia, the United Arab Emirates, and West Bank and Gaza, more than 70 percent of the students are in the humanities and social sciences. This pattern of enrollment is, at least in part, related to the expansion of the role of the state and the absorption of most university graduates into civil service jobs. But it is not suitable at present given the expansion of the role of the private sector and changed government policies with regard to hiring university graduates given the financial constraints that limit the state's ability to absorb additional numbers into the civil service (The World Bank 2008).

### Equity

In addition to expanding enrollment, wide access to education has been guaranteed in many MENA countries through a policy of free education for all, which was mostly established during the 1950s and 1960s, but has continued more or less with limited change ever since. The constitutions of Algeria, Egypt, Morocco, Syria, and Yemen mention education as a right for their citizenry, while the constitutions of other Arab countries mention compulsory education as a state responsibility (The World Bank 2008). It is clear from the list of countries that mention education as a right that they were all, in different degrees, influenced by the Arab Socialist model established by President

Gamal Abdel Nasser in Egypt during the 1950s and 1960s. I believe that this model established ideas and institutions that create a path dependent track for the countries that were influenced by it. The other main track in the region is the oil-based track primarily in oil-rich countries. I will discuss these developmental models in more detail in Chapter 3.

Despite this foundation that guaranteed education equality in MENA, there has been a trend between 1985 and 2000 towards more inequality. This observation is supported by data on the percentage of enrollment by poor versus non-poor and rural versus urban populations in primary and secondary education. Non-poor children in urban areas tend to have higher access to education at both levels compared to poor children in rural areas. There are two possible explanations for this trend. On the structural level, most countries in the MENA region started at low levels of school attainment, and the trend toward education equality which lasted between the 1950s until the early 1980s was almost inevitable. On the policy level, the region allocated higher resources, since it started expanding education during the 1950s, to higher levels; that is, to secondary relative to primary education, and tertiary relative to either primary or secondary (The World Bank 2008).

In addition, the financial stresses on many countries in the region led them to reduce educational spending in their budgets. Families still have to carry a large burden of education spending given that a high percentage of education spending in MENA countries, which reaches 60% in some countries, is carried by households through private tutoring (The World Bank 2008). This gives poor families less incentives to send their children to schools, especially that private tutoring in some countries has become some

sort of a cultural attribute that is widespread in both public and private schools. Private schools, which provide better education through fewer numbers of students in classrooms and better equipment, are prohibitively expensive for poor families. The lower quality of public schools, which includes buildings that might represent a moral hazard for students, is another disincentive for poor families.

MENA countries have allowed greater private participation in providing education at all levels, whereas other countries decreased the share of private education in secondary schools. Only Lebanon and West Bank and Gaza allowed a significant private sector involvement. And the MENA region exhibits a trend counter to many countries in that enrollment in private schools in 2003 was higher at the basic level than it was in secondary education. On the other hand, we find that East Asia has essentially privatized higher levels of schooling and left primary education almost entirely a public responsibility (The World Bank 2008).

### The Gender Gap

The performance of MENA countries is especially impressive in the case of improvements in number of years of education for females. The region achieved higher than expected with respect to female education during 1980–2000; in addition to outperforming many comparators in East Asia and Latin America. Egypt, Libya, and Yemen outperformed all comparator states. Today, all countries of the region, with the exception of Algeria, Djibouti, Iraq, Morocco, and Yemen have a gender parity index (GPI) above 0.95 at the level of primary education<sup>8</sup>. In Jordan, Gender Parity was

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8. The Gender Parity Rate equals the Gross Enrollment Rate (GER) for girls divided by the Gross

reached before full primary enrollment. Gender parity for basic education is almost complete (The World Bank 2008).

The parity indices for secondary and higher education are not significantly different from the corresponding indices for Latin America and East Asia. The only shortcoming is regarding illiteracy, where the percentage of illiterate women remains significant. Although few countries have high rates of secondary enrollment, most have reached gender parity at this level. However, Djibouti, Iraq, Morocco, and Yemen have secondary education gender parity rates below 0.95. In Algeria, Egypt, Kuwait, Lebanon, and Tunisia, the gender gap for secondary education is smaller than for primary. Gender Parity is even higher at the level of tertiary education. In fact, in all MENA countries, with the exception of Djibouti, Iraq, Morocco, and Yemen the number of females is higher than the number of males in tertiary education (The World Bank 2008).

### Student Achievement

As previously explained, Arab countries had made important strides in the quantitative expansion of education in the latter half of the 20<sup>th</sup> century. However, the overall level of education is still unfavorable compared to the level of achievement of other countries, both developing and developed (UNDP 2003a). From this perspective, it could be argued that the problem of the education systems in Arab countries cannot simply be attributed to spending since, as mentioned in the previous section, spending on education in Arab countries as percentages of their income and budgets is a match to comparator countries.

The point is: allocating insufficient resources to education can certainly reduce its quality. But there are other elements that also affect educational quality. My argument is that these elements, which include pedagogical methods, curricula, working conditions of educators, educational institutions, incentives for schools and teachers, accountability mechanisms, and education policies, all boil down to an issue of governance. I will discuss the development of the governance systems in the region in relation to education systems in Chapter 3. I argue that economic and political changes since independence shaped educational institutions and relations in a way that did not change much since that time, despite economic reforms. Chapters 4 and 5 will focus on the politics, history, and socioeconomic context behind education reform, bringing together the results obtained in previous chapters.

In this section I present a picture of the educational outcomes in Arab countries through student achievement on international standardized exams. Other measures of quality could include patent by residents, the ability of students to join world-class universities, and the number of distinguished scientists and researchers produced by the educational system. However, data on these measures is scarce (The World Bank 2008). Other problems of quality are reflected in efficiency. One clear example of this is the high dropout and non-completion rates in the region. These phenomena are more of a symptom of poor quality rather than a cause of it. I will focus on the Trends in International Math and Science Study (TIMSS) since it included the widest participation from Arab countries as compared to other international standardized exams such as PISA. The participation of Arab countries in TIMSS exams are summarized in Table 9.

Table 9. Arab Countries' Participation in TIMSS (4th and 8th Grades)

Country	Grade 4			Grade 8			
	2007	2003	1995	2007	2003	1999	1995
Algeria	x			x			
Bahrain				x	x		
Egypt				x	x		
Jordan				x	x	x	
Kuwait	x		x	x			x
Lebanon				x	x		
Oman	x						
Palestine				x	x		
Qatar	x			x			
Saudi Arabia				x	x		
Syria				x	x		
Tunisia	x	x		x	x	x	
Yemen	x	x					

*Note:* Compiled from Mullis, Martin, and Foy (2008).

It should be noted here that the very fact that an increasing number of Arab countries are participating in TIMSS is an indication of an increasing attention to the issue of quality in education. The picture might appear gloomy given that most Arab countries which participated in international standardized exams of student achievement in Math and Science fell below international average. Figure 2, from “The Road Not Traveled: Education Reform in the Middle East and North Africa,” shows a comparison between the achievements of Arab countries on math and science in TIMSS 2003. Only Jordan reached the international average in the science exam.

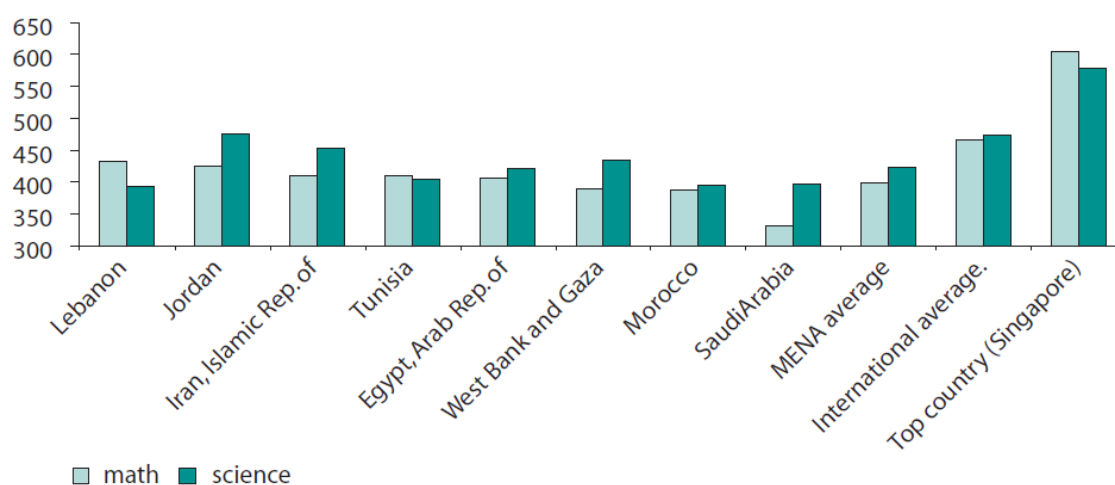


Figure 2. TIMSS 2003, mathematics and science average scores of 8th grade. The World Bank 2008.

The picture was not much different in TIMSS 2007. Figure 3 shows that a significant number of students in Arab countries still fail to reach the test's lowest benchmark.

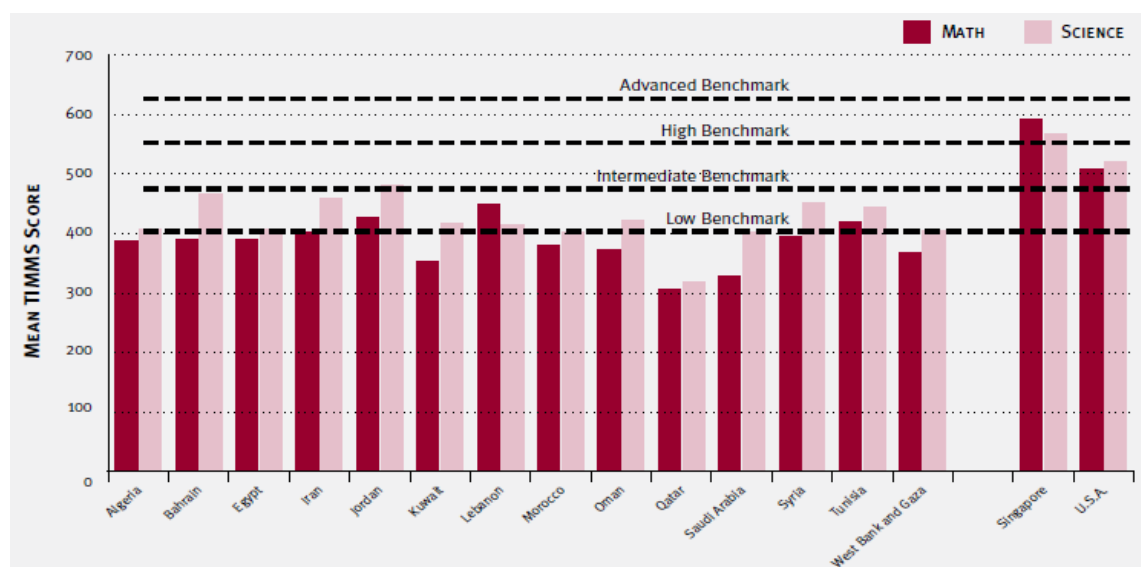


Figure 3. Mean TIMSS scores for participant Middle East countries. Reproduced from Middle East Youth Initiative (2009).

The following points could be mentioned about the achievements of MENA countries in TIMSS 2003:

1. The average for MENA countries is far below the world average, and far below a top performer like Singapore.
2. Morocco and Saudi Arabia scored particularly low on math tests, while Kuwait, the Palestinian territories, and Jordan scored the best overall.
3. Income and conflicts do not seem to have a negative effect on student achievements. Surely, countries with relatively high per capita income such as Kuwait perform relatively better than poor countries like Djibouti and Yemen. But it is also true that countries like Algeria and Saudi Arabia, with relatively high per capita incomes, perform less well than countries with lower per capita income like Jordan or Tunisia. Regarding the effect of violence, Jordan experienced the 6-day war in 1967, and Lebanon has experienced some sort of civil wars and domestic conflicts for most of its history, in addition to a recent short large scale military confrontation with Israel in 2006. Kuwait has experienced the invasion from Iraq and a war of liberation in 1990/91, and the Palestinians have been living under tough conditions for all their history since the creation of Israel in 1948. These security problems do not seem to have had much influence on the educational achievement of students.

Another point to note about the achievement of Arab students on TIMSS is that there are few cases of statistically significant changes between rounds of TIMSS, and the number of statistically significant upward changes is almost equal to the number of cases when the scores in later rounds were significantly less. Tables 10–13, compiled from



Table 10. Trends in Mathematics Achievement for Arab Countries: 4th Grade (1995–2007)

Country		Average scale score	2003–2007 difference	1999–2007 difference
Morocco	2007	341 (4.7)		
	2003	347 (5.1)	–6 (6.7)	
Tunisia	2007	326 (4.5)		
	2003	339 (4.7)	–13 (6.5) ↓	
Lebanon	2007	449 (4.0)		
	2003	433 (3.1)	16 (4.9) ↑	
Jordan	2007	427 (4.1)		
	2003	424 (4.1)	3 (5.8)	
	1999	428 (3.6)		–1 (5.4)

*Note:* Countries are listed in descending order according to their average TIMSS 2007 achievement. Reproduced from Mullis, et al. (2008). ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Standard errors are in parentheses. Data are not shown for Kuwait, because comparable data from previous cycles are not available. Data for Tunisia do not include private schools.

“TIMSS 2007 International Mathematics Report: Findings from IEA’s Trends in International Mathematics and Science Study at the Fourth and Eighth Grades,” show the trends in mathematics for Arab countries that have comparable data from previous TIMSS assessments for 4th and 8th Grade students (Mullis, et al. 2008).

The picture becomes even gloomier when looking at the percentage of students reaching international benchmarks. Generally speaking, participants with the highest average achievement had greater percentages of students reaching each benchmark, while lower achieving countries had lower percentages. The percentages of students in participating Arab countries who could reach the Advanced International benchmark is close to zero, and have not significantly improved for the countries for which

Table 11. Trends in Mathematics Achievement for Arab Countries: 8th Grade (1995–2007)

Country		Average scale score	2003-2007 difference	1999-2007 difference
Lebanon	2007	449 (4.0)		
	2003	433 (3.1)	16 (4.9) ↑	
Jordan	2007	427 (4.1)		
	2003	424 (4.1)	3 (5.8)	
	1999	428 (3.6)		–1 (5.4)
Tunisia	2007	420 (2.4)		
	2003	410 (2.2)	10 (3.2) ↑	
	1999	448 (2.4)		–28 (3.5) ↓
Bahrain	2007	398 (1.6)		
	2003	401 (1.7)	–3 (2.2)	
Egypt	2007	391 (3.6)		
	2003	406 (3.5)	–16 (4.9) ↓	
Palestine	2007	367 (3.5)		
	2003	390 (3.1)	–23 (4.6) ↓	

*Note:* Countries are listed in descending order according to their average TIMSS 2007 achievement. ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Standard errors are in parentheses. Data are not shown for Kuwait, Morocco, and Saudi Arabia because comparable data from previous cycles are not available. Reproduced from Mullis, et al. (2008).

Table 12. Trends in Science Achievement for Arab Countries: 4th Grade (1995–2007)

Country		Average scale score	2003-2007 difference	1999-2007 difference
Tunisia	2007	317 (6.0)		
	2003	314 (5.7)	3 (8.1)	
Morocco	2007	297 (5.9)		
	2003	304 (6.7)	–7 (9.0)	

*Note:* Data are not shown for Kuwait, because comparable data from previous cycles are not available. Data for Tunisia do not include private schools. Countries are listed in descending order according to their average TIMSS 2007 achievement. ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Standard errors are in parentheses. Reproduced from Martin, Mullis, and Foy (2008).

Table 13. Trends in Science Achievement for Arab Countries: 8th Grade (1995–2007)

Country		Average scale score	2003–2007 difference	1999–2007 difference
Jordan	2007	482 (4.0)		
	2003	475 (3.8)	7 (5.5)	
	1999	450 (3.8)		31 (5.6) ↑
Bahrain	2007	467 (1.7)		
	2003	438 (1.8)	29 (2.2) ↑	
Tunisia	2007	445 (2.1)		
	2003	404 (2.1)	41 (2.8)	
	1999	430 (3.4)		15 (3.6) ↑
Lebanon	2007	414 (5.9)		
	2003	393 (4.3)	20 (7.3) ↑	
Egypt	2007	408 (3.6)		
	2003	421 (3.9)	–13 (5.3) ↓	
Palestine	2007	404 (3.5)		
	2003	435 (3.2)	–31 (4.7) ↓	

*Note:* Data are not shown for Kuwait, because comparable data from previous cycles are not available. Data for Tunisia do not include private schools. Countries are listed in descending order according to their average TIMSS 2007 achievement. ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Standard errors are in parentheses. Reproduced from Martin, et al. (2008).

comparisons exist. In no country did even a fifth of the participating students achieve

High International Benchmarks<sup>9</sup>. Figures for the 8<sup>th</sup> grade seem more encouraging

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9. The percentages are calculated so that students achieving higher benchmarks are also included as achieving the benchmarks below it. For example, the students achieving the Advanced International benchmark are also included in calculating the percentage of students achieving the High, Intermediate, and Low International benchmarks. This means that the low percentage of students reaching the Low International benchmark reflects a situation where almost a quarter or more of the students in some participating Arab countries do not even have elementary knowledge of math and science at the 4th and 8th grades. In TIMSS 2007, a number of Arab countries came at the lower end of the achievement spectrum, with more than half of their students not even achieving the Low International benchmark. Less than half the student in Kuwait (37%), Algeria (33%), Tunisia (32%), Qatar (23%), Morocco (21%), and Yemen (8%) reached the Low International benchmark in the 8th grade science component. Qatar had only 29% of its students reaching the Low International benchmark in the 2007 4th grade science TIMSS exam. In the 2007 TIMSS Math exam, only 41% of the students in Algeria, 28% in Tunisia, 26% in Morocco, 21% in Kuwait, 13% in Qatar, and 6% in Yemen achieved the Low International benchmark at grade 4. At the 8th grade, Saudi Arabia had only 18% of its students reaching the Low International benchmark, and had 16%.

though, and there appears to have been some improvement. Tables 14 through 17 show the percentage of students reaching international benchmarks in math and science TIMSS exams in Arab countries.

In Table 17, which reports trends in the percentage of students achieving Advanced and High International benchmarks in 8<sup>th</sup> grade science, we find statistically significant higher percentages achieving both levels in Jordan, Bahrain, and Tunisia. With the only possible exception of Tunisia in 8<sup>th</sup> grade science, no steady improvements were shown in any of the Arab countries for which comparable data is available, except with 8<sup>th</sup> grade science achievements in Jordan. This could be attributed, at least in part, to the few countries for which comparable data is available. Jordan was the only Arab country in which the percentage of students achieving the Advanced International Benchmark was above the median in 2007.

Overall, Lebanon and Jordan score above the MENA regional average, while Saudi Arabia and Morocco are below the average. Using TIMSS 2003 scores for MENA countries, while leaving out Gulf countries, (Bahrain, Kuwait, and Saudi Arabia) because of their very high GDP per capita and low test scores, the World Bank (2008) finds that the estimated coefficient for GDP per capita has a statistically significant positive effect on student performance at the 1 percent level, while the coefficient for gross secondary enrollment did not have a statistically significant effect. It is interesting to note that when

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The median of the percentage of student reaching the Advanced International Benchmark on the math exam was 5% for the 4th grade and 2% for the 8th grade. The median of the percentage of student reaching the Advanced International Benchmark on the science exam was 7% for the 4th grade and 3% for the 8th grade. Jordan was the only Arab country for which comparable data is available that achieved in the top 50% with regards to the percentage of students achieving Advanced International Benchmark for science at the 8th grade (Martin, et al., 2008; Mullis, et al., 2008).

Table 14. Percentage of Students in Arab Countries Reaching the TIMSS 2007 International Benchmarks in Mathematics  
Achievement among Arab Countries: 4th Grade

Country	Advanced International Benchmark (625)		High International Benchmark (550)		Intermediate International Benchmark (475)		Low International Benchmark (400)	
	2007	2003	2007	2003	2007	2003	2003	2003
	% of students	% of students	% of students	% of students	% of students	% of students	% of students	% of students
Morocco	0 (0.2)	0 (0.0)	2 (0.8)	1 (0.2)	9 (1.1)	8 (0.8)	26 (2.0)	29 (2.2)
Tunisia	0 (0.1)	0 (0.1)	1 (0.2)	1 (0.3)	9 (0.8)	9 (1.0)	28 (1.6)	28 (1.7)

*Note:* Data are not shown for Kuwait, Morocco, Saudi Arabia, and Turkey, because comparable data from previous cycles are not available. Adapted from Mullis, et al. (2008).

Table 15. Percentage of Students in Arab Countries Reaching the TIMSS 2007 International Benchmarks in Mathematics  
Achievement among Arab Countries: 8th Grade

Country	Advanced International Benchmark (625)			High International Benchmark (550)		
	2007 % of students	2003 % of students	1999 % of students	2007 % of students	2003 % of students	1999 % of students
Jordan	1 (0.2)	1 (0.2) ↑	3 (0.5) ↓	11 (0.8)	8 (1.0) ↑	12 (1.0)
Lebanon	1 (0.2)	0 (0.1) ↑		10 (1.2)	4 (0.6) ↑	
Egypt	1 (0.1)	1 (0.2)		5 (0.4)	6 (0.5)	
Palestine	0 (0.1)	0 (0.1)		3 (0.4)	4 (0.4)	
Bahrain	0 (0.1)	0 (0.0) ↑		3 (0.3)	2 (0.2)	
Tunisia	0 (0.1)	0 (0.0)	0 (0.1)	3 (0.3)	1 (0.3) ↑	5 (0.5) ↓
Jordan	35 (1.7)	30 (1.9) ↑	33 (1.6)	61 (1.8)	60 (1.9)	61 (1.4)
Lebanon	36 (2.4)	27 (1.8) ↑		74 (2.3)	68 (1.9)	
Egypt	21 (1.0)	24 (1.2)		47 (1.5)	52 (1.7) ↓	
Palestine	15 (0.9)	19 (1.2) ↓		39 (1.4)	46 (1.5) ↓	
Bahrain	19 (0.7)	17 (0.7)		49 (0.9)	51 (1.1)	
Tunisia	21 (1.2)	15 (1.1) ↑	34 (1.5) ↓	61 (1.5)	55 (1.6) ↑	78 (1.2) ↓

*Note:* Data are not shown for Kuwait, because comparable data from previous cycles are not available. Data for Tunisia do not include private schools. Countries are listed in descending order according to their average TIMSS 2007 achievement. ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Standard errors are in parentheses. Adapted from Mullis, et al. (2008).

Table 16. Percentage of Students in Arab Countries Reaching the TIMSS 2007 International Benchmarks in Science  
Achievement among Arab Countries: 4th Grade

Country	Advanced International Benchmark (625)		High International Benchmark (550)		Intermediate International Benchmark (475)		Low International Benchmark (400)	
	2007 % of students	2003 % of students	2007 % of students	2003 % of students	2007 % of students	2003 % of students	2003 % of students	2003 % of students
Morocco	0 (0.2)	0 (0.0)	2 (0.5)	1 (0.3)	9 (1.4)	9 (0.8)	21 (1.9)	24 (1.6)
Tunisia	0 (0.1)	0 (0.1)	3 (0.5)	2 (0.3) ↑	14 (1.1)	10 (1.0)	31 (1.7)	27 (1.7) ↑

*Note:* Data are not shown for Kuwait, because comparable data from previous cycles are not available. Data for Tunisia do not include private schools. \* Countries are listed in descending order according to their average TIMSS 2007 achievement. ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Adapted from Martin, et al. (2008).

Table 17. Percentage of Students in Arab Countries Reaching the TIMSS 2007 International Benchmarks in Science Achievement among Arab Countries: 8th Grade

Country	Advanced International Benchmark (625)			High International Benchmark (550)		
	2007 % of students	2003 % of students	1999 % of students	2007 % of students	2003 % of students	1999 % of students
Jordan	5 (0.6)	3 (0.5) ↑	4 (0.5) ↑	26 (1.5)	21 (1.4) ↑	17 (1.0) ↑
Bahrain	2 (0.4)	0 (0.1) ↑		17 (0.8)	6 (0.6) ↑	
Palestine	1 (0.2)	1 (0.2)		9 (0.6)	10 (0.8)	
Lebanon	1 (0.4)	0 (0.1)		8 (1.2)	4 (0.7) 1 (0.2)	
Egypt	1 (0.1)	1 (0.2) ↓		7 (0.6)	10 (0.7) ↓	
Tunisia	0 (0.1)	0 (0.0)	0 (0.1)	4 (0.5)	1 (0.2) ↑	3 (0.5)
Jordan	56 (1.8)	53 (1.8)	42 (1.4) ↑	79 (1.4)	80 (1.3)	69 (1.6) ↑
Bahrain	49 (0.9)	33 (1.1) ↑		78 (0.7)	70 (1.2) ↑	
Palestine	28 (1.2)	36 (1.4) ↑		54 (1.5)	66 (1.5) ↓	
Lebanon	28 (2.1)	20 (1.5) ↑		55 (2.9)	48 (2.0) ↑	
Egypt	27 (1.4)	33 (1.4) ↓		55 (1.6)	59 (1.6) ↓	
Tunisia	31 (1.3)	12 (1.0) ↑	25 (1.6) ↑	77 (1.2)	52 (1.5) ↑	68 (2.1) ↑

*Note:* Data are not shown for Kuwait, because comparable data from previous cycles are not available. Data for Tunisia do not include private schools. Countries are listed in descending order according to their average TIMSS 2007 achievement. ↓ = 2007 average significantly lower. ↑ = 2007 average significantly higher. Adapted from Martin, et al. (2008).



adjusted for their GDP per capita and gross secondary enrollment rates, Jordan, Lebanon, and Egypt move down the rank order relative to their rank order in the absolute score. Morocco moves up the rank order. Tunisia remains essentially at about the level predicted. If test scores are intended to measure student performance rather than some socio-economic variables not accounted for in the test, some countries in the region could be performing more satisfactorily than appears from a mere look at test scores given their level of economic development, whereas those in other countries fall below this average (The World Bank 2008).

When the three Gulf States for which test scores are available— Bahrain, Kuwait, and Saudi Arabia—are included, this picture changes. The estimated regression line of test scores on GDP per capita and gross secondary enrollment is essentially flat, and the coefficients of GDP per capita and gross secondary enrollment are not statistically significant. One reason for this is that the very high GDP per capita is not the kind of wealth based on education and social capital associated with children's higher academic performance in school (The World Bank 2008). Another interesting observation to note here is that gender differences in student achievement were negligible in TIMSS 2003, and girls actually outperformed boys in some countries (UNDP 2003b).

This later point regarding wealth and education echoes the main question in this study: the combination of wealth and human underdevelopment in one and the same place. Wealth in the region does not have a concrete relation with student performance. It is also important to note here that the Gulf wealth is based on oil, which should direct our attention to understanding the effect of this resource on the region at large, especially

given the increase in the influence of oil-rich countries through investments, aid, and labor migration within the region.

### Education and Business Needs

While the issue of business needs and labor markets could be discussed as issues related to economic structures, I believe it is important to discuss them here since one generally agreed-upon goal of education is to serve the needs of the market.

The question regarding whether education systems in Arab countries provide the appropriate mix of skills in sufficient quantities is sometimes perceived as putting the car before the horse, or in terms of the chicken-egg problem. In other words, it could be argued that the education systems do not provide the appropriate skills in sufficient quantities in Arab countries, and this is a main reason for the lack of a link between education and economic performance. From the opposite angle, one could argue that the limited employment opportunities in the region make developing skills almost aimless and a waste of money. Using econometric terms, the relation between skills and employment is spurious, where limited skills reduce employment opportunities since it discourages business from investing in the first place or expanding its investments after starting business, while at the same time limited employment opportunities, resulting from low public and private investments, reduce incentives to acquire skills and develop education beyond the numbers reflected in enrollment rates and average years of schooling.

There is no clear-cut solution for or agreement about how to understand this spurious relationship. It becomes something like a cycle which enhances the continuity of

the mismatch between education and economic performance in the region, and keeps economic growth vulnerable to exogenous factors and unable to enhance its Total Factor Productivity. This situation has been persisting at least since the mid-1980s, leading to a situation in which economic growth does not have a direct effect on people's prosperity, and where wealth is not directed toward enhancing the potential of people, especially young people.

Since there is no one right point to start a discussion when the basis is that there is a cyclical relation, an arbitrary starting point becomes inevitable. I will start by business opinions regarding the outcomes of the education system: graduates with the right skills in sufficient numbers. This approach provides an assessment of the quality of education in a critical point that determines the link between education and economic performance; that is, the private sector. Representatives of the region's private sector have often voiced concern about the quality of education in the region as a main obstacle for business growth. A recent survey conducted by the World Bank shows that the percentage of firms viewing lack of skills as a main concern for business growth is highest in the MENA region compared to other regions such as Latin America and Africa (Middle East Youth Initiative 2009; see Figure 4).

In a study conducted by the Mohamed Bin Rashed Al-Maktoum Foundation, Arab CEOs identified the lack of talent and trained human resources as the greatest threat to sustainable development. Only half of the CEOs surveyed believe that there are sufficient numbers of qualified students coming out of the education system, with only 54% citing that new graduates carry the right skills set. In addition, only 48% believe that these skilled students are provided in sufficient quantities. Gulf leaders, despite the wealth in

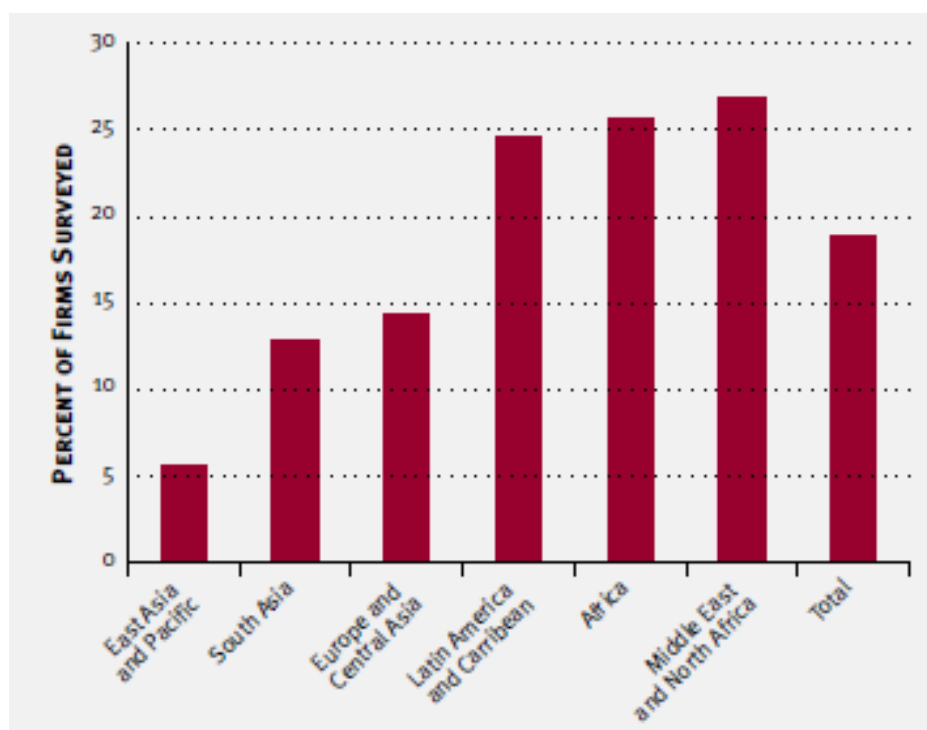


Figure 4. Firms identifying skills of labor force as a major constraint on business development. Data from World Bank Enterprise Survey in 37 countries 2008. Adapted from Middle East Youth Initiative 2009).

the Arab Gulf, are amongst the least satisfied with the supply of skilled students, with only 37% citing their satisfaction (Mohamed Bin Rashed Al Maktoum Foundation 2008).

This observation also draws attention to a seemingly weak link between economic performance and education. The Arab Gulf countries, with their huge oil wealth in addition to other sources of income through foreign direct investment and tourism, were not able to guarantee the development of qualified human resources necessary for sustained economic growth. It is also possible to argue that these countries were simply not committed to education development for various reasons. At any case, we see a situation in which exceptional economic growth in the Arab region has not coincided

with equally buoyant labor and human resource development, raising obvious concerns for sustainable and balanced growth.

On the other hand, Arab countries in North Africa have the lowest employment-to-population ratio in the world, whereby not even five out of every ten people of the working-age population (15-64 years) are classified as employed, which further adds to the problem of the low quality of education by increasing poverty and complicating youth problems (Mohamed Bin Rashed Al Maktoum Foundation 2008). Unemployment in the Arab world also has a gender face to it, where female unemployment is among the highest in the world (UNDP 2009).

It is interesting to note here that despite the high unemployment rates and lower GDP levels in North Africa and Levant Arab countries, the opinions of CEOs from the aforementioned study, based on extensive interviews, tend to be more favorable regarding the mix and quantities of skills produced by the education systems in this later group of countries. Figures 5–7 from this study show the percentages of Arab CEOs satisfied with the quality and quantity of skills available in Arab countries in the Gulf, Levant, and North Africa.

One could note in these figures that Arab CEOs are more likely to be satisfied with the quantity and quality of available skills in the Levant region compared to either the Gulf or North African parts of the Arab region. The lowest percentages of satisfaction overall are in the Gulf. It is also interesting to note that as we move from Figure 5 to Figure 7; that is, from the Gulf to the Levant to North Africa, the ratio of satisfaction with quantity to satisfaction with quality increases. This could be attributed to the much higher populations in North Africa compared to the Levant and the Gulf.

**DOES THE EDUCATION SYSTEM PROVIDE PEOPLE WITH ADEQUATE SKILLS AND IN SUFFICIENT QUANTITIES TO THE ECONOMY? GULF**

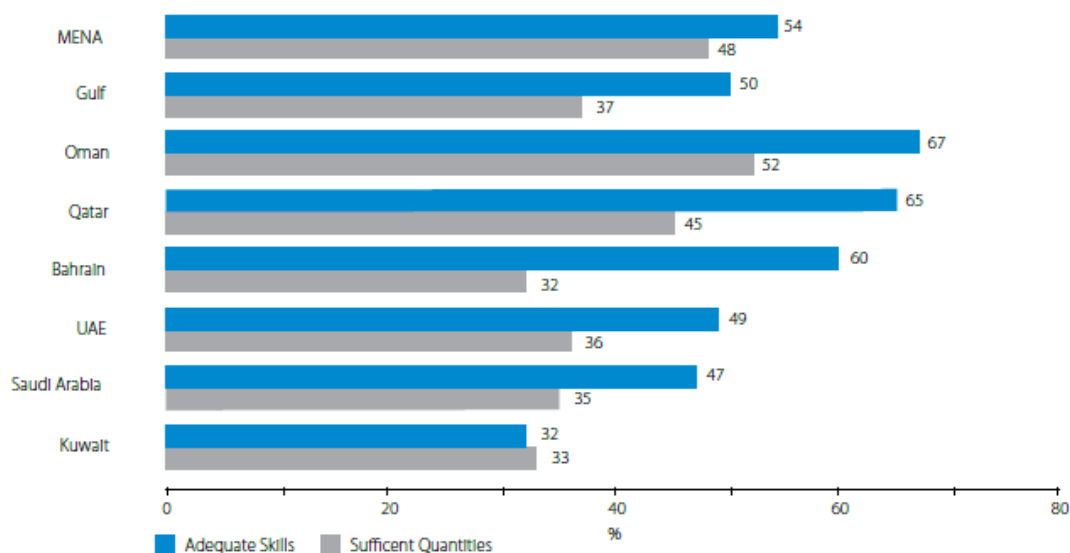


Figure 5. Arab CEO's perception of the outcomes of the education systems in the Arab Gulf.

**DOES THE EDUCATION SYSTEM PROVIDE PEOPLE WITH ADEQUATE SKILLS AND IN SUFFICIENT QUANTITIES TO THE ECONOMY? - LEVANT**

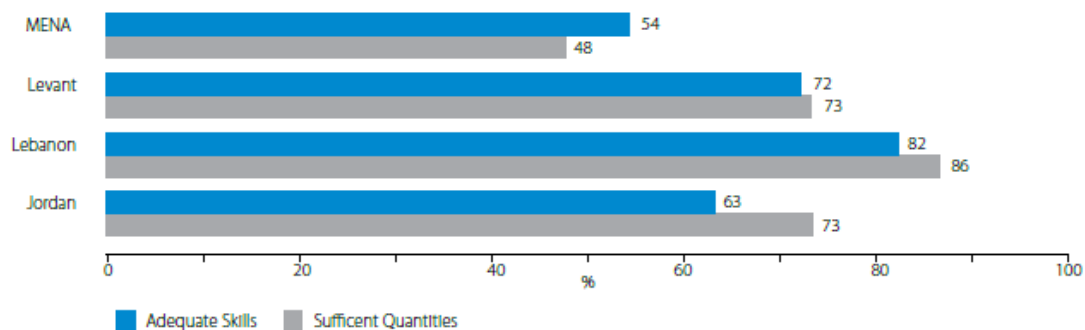


Figure 6. Arab CEO's perception of the outcomes of the education systems in the Arab Levant region.

**DOES THE EDUCATION SYSTEM PROVIDE PEOPLE WITH ADEQUATE SKILLS AND IN SUFFICIENT QUANTITIES TO THE ECONOMY? NORTH AFRICA**

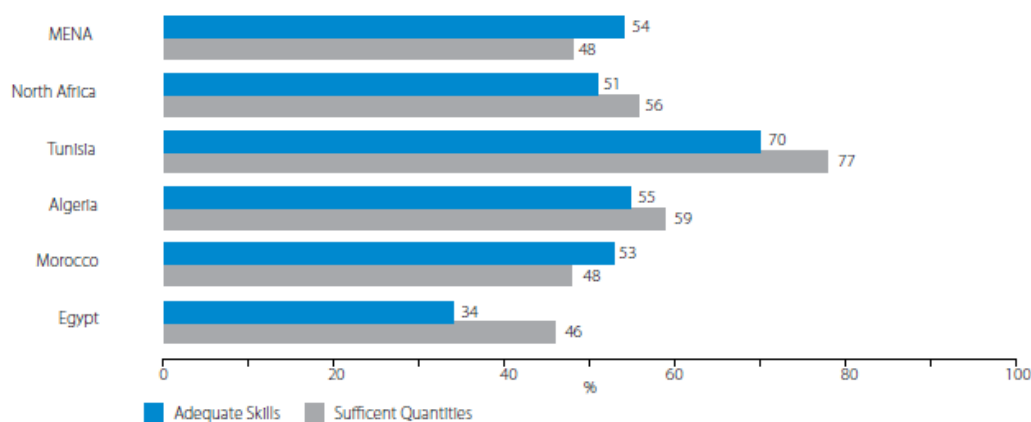


Figure 7. Arab CEO's perception of the outcomes of the education systems in Arab North Africa.

However, it is important to take these results with caution. I believe that while the results in each subgroup of countries could tell us about the situation within each of them, it is difficult to take these figures as a basis for comparison. In other words, these different percentages are not directly comparable because the nature of the economic situation in each country makes a difference. For example, a country like UAE, which has recently expanded its infrastructure in the field of IT, has CEOs who are expected to be in need for more talented labor than a country where economic activity is controlled by assembling industrial activities.

In this sense we can draw general conclusions about the situation in each of these subgroups of Arab countries. Arab Gulf countries face a need for improving their education systems to meet the needs derived from their attempts, encouraged by oil wealth, to take steps toward the knowledge economy. The Levant region is arguably achieving the best in terms of quality education, while the worst situation seems to be

present in North Africa where neither the quality nor quantity of education outcomes is satisfactory. This implies that the large number of graduates in these countries lack needed skills that could allow them to be of some use to employers, which means that the high investments in education in this region could indeed be a waste of money.

This brings to the front the other side of the coin for the education-business link; the face which puts the blame on public and private investments. While one point of view would highlight the concern on the part of the private sector that the education system is not providing graduates with appropriate skills to deal with the challenge of globalization (Rugh 2002), another point of view perceives the problem in the Arab world as one of limited opportunities for graduates to get a job. In an interview on PBS, Egyptian Leftist intellectual Ahmed El Sayed El Nagar argued that the main problem is the failure of the government to create jobs for the entrants into the labor market. The problem is that the political regime is more interested in its own survival than about economic development (Pike, nd).

The government looks at the consequences and believes that there is an increased political opposition, and therefore it increases the spending on this concern instead of spending on the unemployment problem. If the amount of spending on internal security is directed toward the creation of new projects to absorb the new graduates/new entrants into the job market, I believe this would ease the security challenges, since it will reduce violence, crimes and political extremism and create stability. This is if the government looks at it as a social problem. In other words, the issue is that [the] government is concerned with the consequences of unemployment and not really with the unemployment problem itself. (Interview, Ahmed El Sayyed El Naggar. By Amanda Pike)

The Arab Human Development Report 2009 echoes this opinion in stating that,

Reforms introduced by Arab governments are mostly driven by the concern to maintain control over the population. The state still privileges its own security at



the expense of that of society. Society itself, especially its economic elites, civil society and opposition groups, is weak and lacks a clear reform agenda. (UNDP 2009)

In addition, El Nagar in the afore-mentioned interview also argues that providing training to university graduates, a trend that could be found in a number of Arab countries, will not be that helpful if jobs are not available.

Another problem is that the government believes that providing some training to the graduates will resolve the problem. This will not solve the problem at all. It provides some additional skills for small jobs and some technical skills such as using the PC or the Web. But if the new graduate has successfully obtained his diploma and taken all this additional training and still does not find a job, what will be the result? An increased hatred toward the government and the society.

The problem is not in the training; the problem is in the lack of real economic development: industrial, agricultural and service development that creates new openings. So the solution here is not through training but through the development of new projects, whether public or private, of small, medium or large scale.

The argument goes that education in Arab countries is not a guarantee against unemployment. For example, while education reforms in Jordan have led to improved enrollment and quality, the percentage of informal labor market remained high and job creation remained concentrated in low skilled positions. The case in Egypt is not so much different, where the greatest number of new jobs created between 1998 and 2006 were in the informal sector (Middle East Youth Initiative 2009).

Another trend in the literature attributes the weak connection between education and economic performance to rigidities in the labor market. This rigidity is often blamed on rigid governmental rules and regulations that have not changed much over the years. This logic puts the blame on restrictions on

hiring and firing which make even private employers more interested in hiring people with degrees and diplomas, whether these degrees reflect skill acquisition or not, instead of hiring people who did volunteer work and developed their skills through experiences that are not reflected in university degrees (such as internships). The argument goes on that the aspiration for government employment also hinders the desire of children and youth to acquire skills and focus on rote memorization in order to acquire a degree or diploma (Djavid Salehi-Isfahani and Dhillon 2008).

This logic focuses on the incentives of students and employers, and could make sense in terms of the rational choice of both. However, one is left to wonder in terms of the economic reforms and openness in many countries in the region, why the governments were not able to respond to the needs of employers, and how come that reforms, especially during the 1990s, did not lead to changes in the system and signals within the system of education and its main actors: the government, business, schools and teachers, and students/families?

My argument is that the issue of the relation between business and the outcomes of the education system is a two-way road. As explained earlier, countries in East Asia started by developing their economies and the expansion of education was often in response to the creation and expansion of economic sectors. However, it is also possible that focusing on expansion in a certain field of education can open economic opportunities in this field and hence lead to more and better resource utilization.

Whether education will develop into a focus on quality and skills acquisition is based on the interactions among the main players in any education system: politicians, students/families, and schools/teachers. From a macro-social perspective, these actors are: the government, business, and civil society. The role of the business could be included among the elites/politicians. Businesspeople and CEOs could also be perceived as part of the families, or “the people” at large. The relations between these actors reflect governance relations in the polity at large. These relations were formed over history, and affected by the socio-economic context and regime time horizon. In other words, I perceive the education system and its outcomes as based on a series of contracts within a governance structure. Understanding the goals of the actors and the accountability mechanisms within these contracts will help us understand the system and formulate designs to align the incentives and signals among the actors to achieve better results. Needless to say, these contracts are assumed, and can be inferred from opinions and ideas. This means that cases studies should be an integral part of a research based on this proposed framework.

In the next chapter, I will address the variation in economic performance among Arab countries between 2001 and 2006. These years are years of economic revival, and represent an important opportunity to evaluate the effects of differences among Arab countries and how they influenced economic growth. I also address in this Chapter the relationship between education and economic performance, and I set the stage for discussing education in later chapters. My

main purpose is to highlight how exogenous variables; that is, variables that lie outside the direct control of the political regime in power, set the stage for creating its time horizon. I will take the results from this chapter a step further in Chapter 3 by analyzing how these exogenous variables, in interaction with leadership and history, established governance structures and social institutions that determine, to a great extent, the outcomes of education systems.

### A General Evaluation

My purpose in this chapter was to provide a general portrayal of the socioeconomic situation in the Arab world. My focus was on economic performance and education. The literature highlighted the mismatch between the two, and my purpose was to present data and arguments about this absent link. The economy in Arab countries fluctuated over the years, from high growth during the 1970s, resulting mainly from the oil boom, to a lost decade during the 1980s, and then structural adjustments and modest revival starting in the 1990s and picking up in the late 1990s, affected again by oil prices.

This manner of economic fluctuations reflects an important influence of exogenous shocks, which means that the economies in Arab countries are still not based on strong economic foundations. This could explain why foreign trade and openness do not have much effect on stable growth. After all, if growth is based on temporary reforms and adjustments, trade in primary commodities, and/or unstable legal frameworks, the sustainability of economic improvements would be based on weak bases at best. This is why I believe that education is an important approach to understanding the potential for

Arab countries to sustain their growth and make use of the wealth and/or economic growth for long term development.

I attempted in this chapter to present a general evaluation of the outcomes of the education systems in Arab countries. It is obvious that Arab countries have achieved important strides in the quantitative dimension of education. This includes increases in enrollment and average years of schooling, and narrowing the gender gap. However, the ills of this system, which includes high dropout rates and the massive expansion of private tutoring, also reflects problems with quality. I attempted to present evidence of such quality problems through discussing student achievements in TIMSS exams and discussing the relationship between the labor market and education outcomes in the region.

The results generally show low quality of education. In the labor market, the argument is that education does not provide the appropriate skills in sufficient quantities that are needed for business expansion. While this argument makes sense, and could explain the large number of expatriate labor in some Arab countries such as UAE and Saudi Arabia, it does not explain why business could not influence policy, what the goals of business are, and how they go about achieving them. The point is; education faces the same dynamics as most other policy arenas, a system of relations based on a series of contracts between the main actors having a stake in the policy system/subsystem. The rational choice of these actors and the mechanisms of decision making and accountability are important determinants of the outcomes of this system.

These contracts reflect the governance system in the polity at large, which is shaped through history that affected the goals of actors, their relative weights, decision

making mechanisms, systems of accountability, resource allocation, and signals which shape behavior. This requires an understanding of history, leadership, and the material and social context of the regime in power that shape its time horizon. I will move to a discussion of these topics in the next chapter, addressing their effect on economic performance, and attempt to examine the role of education in this context. I put further emphasis on the qualitative story in Chapter 3.

CHAPTER 3  
VULNERABILITY, HISTORY, AND POLITICAL STABILITY  
AS DETERMINANTS OF GROWTH AMONG  
ARAB COUNTRIES: A REGIME TIME-  
HORIZON PERSPECTIVE

Introduction

The purpose of this chapter is twofold. First, it aims at examining the eyeball observation presented in Chapter 1; that the relation between education and economic performance in Arab countries is weak or non-existent. Second, through focusing on exogenous variables contributing to economic performance in Arab countries, such as size, population, and regime stability, my aim is to provide a general understanding of the factors that contribute to the time horizon of the regime in power. The argument is that regimes with longer time horizon of staying in power are more likely to invest in institutional building contributing to long term growth. Contextual factors, such as population size and diversity, influence the ability of the regime to engage in reform programs.

These two purposes are achieved through a quantitative analysis of the determinants of GDP growth in Arab countries. Through this analysis, I aim to create a skeleton for the later qualitative analysis in the coming three chapters. In other words, my final goal is to highlight the variables that could help explain the different speeds of

reform in Arab countries. The further analyses in later chapters attempts to add life to the skeleton created in this chapter, or colors to the sketch that I aim to portray here. The main group of variables that I highlight in this chapter will remain the building blocks for future analysis. Through a review of the literature that attempts to highlight the variables that influence the regimes' ability and willingness to invest in long term growth, I examine three groups of variables that act as building blocks for this work as a whole: exogenous variables, history, and political stability. The argument throughout this and the coming chapters is that variation in reform speeds among Arab countries, and hence the shift in leadership toward smaller Arab countries, could be best understood through focusing on these groups of factors and how they interact in the real world.

Throughout the literature review, I note my interest in providing a dynamic picture for explaining the variations among Arab countries, reflected in this chapter as variations in GDP growth. This dynamic picture is represented by the three building blocks highlighted above, which represent the context of the political regime. By extension, I present a critique of the literature which focused on variables that I believe are rather static, such as religion. While religious and cultural variables certainly play a role in explaining growth and development, the argument is that they can play a less helpful role in the Arab context where countries, despite their many differences, share a number of important similarities<sup>10</sup>. Therefore, I attempted to search for variables where differences are clearer and which help explain the faster reform moves in some Arab

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10. With the exception of Iraq and Bahrain, which have majority Shiites, and Lebanon, which has a plurality of Shiites, all other Arab countries have majority Sunni Muslim population. Another similarity is the history of colonialism. With the only possible exception of Saudi Arabia and Yemen, all other Arab countries were subject to some form of Western colonialism.



countries compared to others. These variables are presented by the three building blocks highlighted above.

The point here is that similarities among Arab countries exist side by side with large variation. Arab countries vary in terms of wealth, size, natural resources, institutional makeup, and economic structures, among other things. Perhaps no other region in the world exhibits such variations and similarities (Richards and Waterbury 2008). Focusing on similarities blinds research from exploring the variations among these countries, and how these variations could explain their varying growth and reform performance. It also leads to a rather static approach in which the problems of the region are approached from a holistic perspective that focuses on the region at large. For example, the focus becomes on Islam as a handicap for economic development, although evidence shows that a number of countries with majority Muslim populations, such as Indonesia and UAE, are clearly not hindered by their religious heritage from developing their institutions and achieving economic progress.

The research opportunity presented by the presence of variation in certain outcomes among Arab countries despite their similarities could be perceived as representing a context similar to a quasi-experiment, where the units of analysis are deliberately chosen so as to be as similar to each other as possible on relevant variables. Arab countries are very close in terms of a number of variables that occupied large attention in the literature, such as culture, democracy, and religion. With these variables more or less constant, we are in a better position to search for variations that could explain differences on certain outcomes such as economic performance and institutional quality. It is important to note here that while this approach to the region might create

gains in terms of internal validity, these gains come at the expense of external validity (Langbein and Felbinger 2006).

Variation in economic performance among Arab countries could be attributed to policies and/or institutions. Both these variables could explain economic success and failure. For example, openness to trade, fiscal austerity, and floating exchange rates are important policies affecting social and economic outcomes. It is also true that bureaucratic efficiency, a stable legal framework, and functional credit markets are essential institutions for encouraging investments and expanding economic activities. Behind these policies and institutions lies the political economy of growth which determines investments and re-investments of the resources and gains in the economy. I focus on this political economic dimension in this chapter in order to highlight factors that will be further explored in the qualitative study. My hypothesis is that there are underlying dynamics in the political system that shape the time horizon and growth orientations of the regimes in power. It could be argued that, while the creation of wealth in some Arab countries could be attributed to oil revenues, oil alone could not explain variation of growth performance and the future potential of Arab countries in a world economy that is increasingly relying on human skills and knowledge.

In this chapter, I go beyond the focus on policy and institutions, and instead focus on the political economy of growth. My argument is that since all Arab countries are non-democratic according to a number of democracy indices, understanding the potential for growth lies, to a great extent, in understanding the motivations of the political elites and factors that shape their time horizon. These factors could be analyzed through understanding the material and social context, economic and social vulnerabilities, and

political stability in these states. The purpose is to understand how regime time horizon affects the potential for long term growth.

This chapter starts with a general review of how some literature approached the region as one whole. I then move on to address problems with this literature and establishing a framework for analyzing areas of variations among countries of the region which can shed lights on the political economy of growth in Arab countries and tell us about their potential. I also address the role of education within this framework. The level of education in a particular country plays a role in absorbing and making use of technology coming from outside the country, which makes it an exogenous variable in this sense. The purpose of these analyses is to highlight important variables in determining the growth potential of countries in the region that I will analyze further in the final three chapters of this work. In other words, this chapter develop the three building blocks of this work—history, size, and political stability—as determinants of growth through a broad literature review, and examines their utility in explaining growth through a quantitative analysis where GDP growth is the dependent variable. In Chapters 4 and 5, I will use these groups of variables to understand the reasons behind the variation in education innovation among Arab countries, employing case studies of education quality assurance systems in Egypt and Qatar.

### The Holistic Approach in Previous Literature

In line with the overall objective of this work, which attempts to explain the reasons behind the shift of the center of leadership among Arab countries toward the region's smaller countries, my focus is on variation in growth as an approach to

highlighting factors contributing to the speed of reform and the potential of the countries in the region. This focus also has a theoretical value. The similarities among Arab countries could help direct attention to the dynamics of the political regime in power. This helps in creating an understanding of the influence of factors that occupied attention in the literature such as group dynamics, regime alliances, political stability, and the effect of time or history on politics. Understanding how countries in the region vary is an important starting point to understanding their reform performance and developmental potential.

With such rich countries as UAE, and other very poor countries such as Sudan and Yemen, one is induced to ask about the reasons behind these differences and, even more importantly, whether the rich countries will be able to sustain their levels of wealth and translate them into human development which increases opportunities for people and achieves their potential, and whether the poor countries can make better use of their resources and design plans and institutions that could contribute to growth. As explained in the previous chapter, the economic performance of Arab countries has lagged behind most comparator country groups in Latin America and Asia. Arab economies are characterized by low productive capacity and vulnerability to external shocks. The fact that I intend to analyze differences in growth performance here is derived from a perception of possibly highlighting factors contributing to variations in economic performance, and that these factors can tell us about the potential for reform – economic, social, and political.

The theoretical benefits of attempting to highlight factors contributing to variations in growth within the Arab region could be highlighted by comparison to

studies which focused on variations among different regions. As a result of possibly omitting potentially important independent variables, available research using worldwide data on nations reached contradictory results with regards to the influence of a number of variables. Especially with regard to variables such as religion and culture and how they affect economic performance, the literature seems contradictory. That is, there is no agreement about whether these variables have a positive, negative, or no effect on economic performance and human development outcomes. Studying Arab countries largely escapes this question, because religion and culture are relatively invariant, and allows investigation to focus on the impact of investment choices on education and economic outcomes.

For example, Noland (2005) investigated the relationship between religion and economic performance in both cross-country and within-country regressions. He found that, if anything, Islam promotes growth. Also Pryor (2006) concludes that majority-Muslim countries today do not constitute a distinct group or economic institutional complex. Using a cluster analysis and data on forty-four economic institutions to define economic systems, he finds that no special Islamic economic system can be isolated. Furthermore, a regression analysis shows that the share of Muslims in the population seems unrelated to the presence or absence of most particular economic institutions. Turning to indicators of economic and social performance, he finds that the presence of Islam has likewise very little influence.

On the other hand, Voight (2005) concludes that Islamic values are not conducive to the establishment and maintenance of the rule of law, constitutional democracy, and a market economy—three institutions at the core of free societies. Guiso, Sapienad, and

Zingales (2003) found that religious Muslims are the most anti-Market and that, on average, religious Christians are more positively associated with attitudes that are conducive to economic growth. The problem of this study, which uses data from the World Values Survey, is that it is very difficult to disentangle the effect of institutions and history from that of religion. That is, religion and religiosity do vary at the individual level, but how far can they influence a country's orientation, and what interpretations of religion prevail in a particular country in certain periods of time, are more important questions that are influenced by historical and institutional factors that interact directly with people's understanding and implementation of religion.

In addition to the perception that quantitative analyses that include diverse countries can only lead to limited results given the inability to control for a plethora of intervening variables, the literature on Arab and Muslim countries is sometimes characterized by a holistic approach to understanding the problems of the region. This approach stresses similarities among these countries, focusing on values and institutions which act as unifying factors that interpret the situation in the region at large.

For example, Kuran (2004) focuses on the role of Islam in historical perspective to explain the failure of Middle Eastern countries to transform their institutions in a way that matches the institutional transformation through which Western Europe has vastly enhanced its economic performance. Dasgupta, Keller, and Srinivasan (2002) use aggregate data and construct an index of four reformers among developing Middle East and North Africa (MENA) countries—Egypt, Jordan, Morocco, and Tunisia—to study the effects of economic reform on growth in the region. They conclude that growth performance in the countries they reviewed remain a half-finished business. The pay-offs

of economic reform and structural adjustment in terms of accelerated growth are seen to have been elusive, especially in the 1990s. Adams Jr. and Page (2003) also aggregate cross-country data and country case studies of Egypt, Jordan, Morocco, Tunisia, and Iran to analyze trends in poverty, inequality, and economic growth. They conclude that, compared to other regions, the MENA region has a low incidence of poverty and income inequality. They attribute this to two factors: international migration, especially to the Persian Gulf and Europe, and public sector employment.

This research is important in highlighting general characteristics and problems of Arab and Middle Eastern economies. Its “blindside” is that it seems to focus too much on commonalities in a way that misses the diversity in the region and the methodological opportunity provided by variance in certain outcomes within a region whose countries share many similarities. Focusing on common aspects blinds research to the fact that these overall similarities did not lead to homogeneous results in all fields. For example, while it could be argued that the cultural and historical heritage of the region explains the lack of democratic development in all its countries, these same factors cannot be used to explain economic performance given the existence of variation in economic achievement and growth among countries of the region. In other words, focusing on the shared components of the structural makeup of the region in order to interpret similarities is defensible. However, if certain aspects in the region vary widely, such as economic performance, it is difficult to explain this variance using shared values and institutions. After all, it is not possible to explain a variable using a constant.

In the early 20<sup>th</sup> century, Max Weber’s influential book “The Protestant Ethic and the Spirit of Capitalism” directed attention to the role religion may play in economic and

social development (Weber 2001). While this approach can be helpful in understanding waves of societal transformation, it might not be as helpful in comparing levels of growth among religiously similar countries and understanding the political dynamics that can lead to different outcomes based on the society's ability to build on its available resources. The point here is, some countries all over the world have opened their borders to foreign influences and learned from them—Japan during the Meiji restoration in the late 19<sup>th</sup> century, and especially after World War II, is but one example. Such cases show that the boundaries between cultures and civilizations could be vague, and there is always a potential for countries to learn from each other's experiences. That is why one of the criticisms of Huntington's thesis of the clash of civilizations is the vague civilization boundaries that are perceived as almost determinative of international cooperation and conflict despite the presence of arguably more influential factors such as history and internal political dynamics (S. P. Huntington 1996).

In sum, variables such as culture and religion are important, but they should be understood within the context of interactions shaped through history in a way that created institutions and decision making structures in particular ways that created incentives, opportunities, and obstacles for the different actors in the policy process. Religion in itself is rather static, and it should be included in combination with other important factors such as history and social movements in order to be able to determine the effect of the rather static religious texts or cultural heritage.

In other words, the relation between culture and institutional structures necessary for economic success depends on a magnitude of relevant parameters (Greif 1994). Simply put, religion is static since religious text does not significantly vary from one



place to the other. It is the human factor and groups of individuals that determine the meaning of the text and its effects—not merely the number of individuals who adopt a particular religion (see (Bayat 2007). One could argue that in order for religion to have an effect, there must be variation in how the text, and the necessity of its different applications, varies from one country to the other. This should depend on a myriad of variables that interacts with religion and religiosity, including history, social movements, and institutions<sup>11</sup>. The same argument holds for culture and other similar societal attributes.

### Variation among Arab Economies

A number of studies attempted to explain the factors leading to variation among Arab economies despite their many similarities. These studies focused on economic policies and sources of wealth. They found evidence of a resource curse in the region, where oil-rich countries were able to accumulate wealth during the 1960, 1970s, and early 1980s, but they remained volatile to fluctuations in oil prices (Makdisi, et al. 2005). Large revenues deriving from oil and other natural resources have allowed many Arab countries to finance large external current account deficits and postpone needed reforms

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11. The overall level of religiosity might vary between countries. However, my argument is that this variation does not have a substantial effect if it is not translated into institutions and reflected in internal politics. Bayat's (2007) argument cited above is that the effect of religion should be understood in the context of group dynamics and institutional creation. This is why I focus in this chapter on the role of colonialism, fractionalization, and natural resources in determining group and elite dynamics. A deeper understanding of the formation of institutions requires an approach that focuses on group dynamics in institutional creation within historical context. This is why I chose to conduct a qualitative study in chapters 3 and 4 of this dissertation. An alternative approach could be including regional dummies to account for the context where religion acts as a determinant of economic performance. Since the context of this study is assumed to be homogeneous due to historical and cultural processes that took place since early history, it is reasonable to assume that the direct effect of religion is more or less accounted for.

(Alonso-Gamo, Fedelino, and Horvitz 1997). This literature has attempted to create a taxonomy of Arab economies usually based on economic diversification and resource wealth (see for example Makdisi, et al. (2005)). One of the most meaningful criteria for distinguishing Arab countries is oil wealth (Limam 1998), which had an important effect not only on economic structures, but also on social and political structures. Limam's (1998) study adds a historical and leadership dimension to the effects of exogenous variables in order to understand the institutional and policy setting in the Arab world that led to offsetting reform but allowed certain countries to develop their human potential and diversify their economies.

### Literature Review and Hypotheses Development

In the following sections, I review the literature that addressed the effects of the three building blocks identified earlier – exogenous variables, history, and political stability – on growth. I do not discuss the effects of history in a separate section, but rather include it as important dimension in the discussion of exogenous variables and political stability. I discuss the effects of democracy and natural resources on economic growth in two separate sections. Each section includes a discussion of hypotheses to be included later in the regression analysis part of this chapter.

It is important to note here that these categories are not mutually exclusive. My main argument is that the interaction between exogenous variables, history, and political stability/leadership shapes the time horizon of the regime in power as well as social relations and institutions. In short, the interactions between the building blocks of this

study are so intimate, which is why I argue that this approach is dynamic. While I mention these building blocks as separate categories, I do not intend to make strict distinctions among them in the review here or in future chapters. The following literature review is divided according to my understanding of the main trends in the literature that addressed issues related to the main building blocks of this study.

### Vulnerability and Economic Growth

The literature in this category focuses on a number of exogenous variables that set the stage for regime vulnerability. For the purposes of this work, exogenous variables are defined as those variables that exist outside the direct control of the political regime in power. These variables include area and population size, heterogeneity of the population, natural resources, and colonial history. Among these variables, size in particular sets the stage for the country's vulnerability. A small area size leads to vulnerability both economically and strategically from hostile powers. Together with political stability, which will be discussed in the next section, these variables set the stage for creating the time horizon for the political regime in power.

Population size has acquired attention within this category. Population size can be beneficial for growth given the expansion of markets and tax revenues. However, this comes at the cost of administrative pressures and possible polarization in the society. Alesina and Spolaore (Alesina and Spolaore 1997 2003) argue that there is a tradeoff between the benefits of a large jurisdiction and the costs of large and heterogeneous population. That is; at some point, the benefits of ideal size diminishes, and the administrative and congestion costs may defeat the benefits of size. More important is the

consideration that in larger countries there are more diverse preferences, cultures, and languages within the population. A country's heterogeneity increases as it becomes larger. Heterogeneity, especially as reflected in ethnic and linguistic fractionalization, often is correlated with poor growth rates (Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg 2002; Easterly and Levine 1997; Mauro 1995). Alesina, Baqir, and Easterly (1999) conclude from their study of U.S. cities, metropolitan areas, and urban counties that spending on productive public goods—such as education, roads, sewers, and trash pickup—is inversely related to ethnic fragmentation.

Another consideration in the literature, which I also find related to the issue of the homogeneity of the population, is that within the tradition of the logic of collective action (Olson 1965). Countries with a relatively small and homogeneous population are better able to build effective institutions for long-term growth given the reduction in transactions costs. The main groups interacting in the public policy arena will be large according to Olson (1982). Large groups according to this logic are more concerned with the welfare of the society as a whole. On the other hand, small groups, such as labor unions or business cartels, are more concerned with redistribution even if this leads to less of the pie to be redistributed.

The final consideration within this category is the literature that attempts to explain the challenges small countries face and their position relative to other countries regarding economic performance. Most of the literature on the effect of size on economic performance, reviewed earlier, emphasizes population and fractionalization. However, area matters too; since small area leads to constraining the resource base, especially if agriculture is a main economic activity. A small agricultural area, and the overall sense of

vulnerability in small countries, is expected to induce the small country to direct more of its attention to trade and to diversifying its production, thus leading to higher economic performance (Alesina and Wacziarg 1998 ; H. Armstrong, Kervenoael, Li, and Read 1998; H. W. Armstrong and Read 2002 ).

Easterly and Kraay (2000) defined small states as those with population of one million or less, in order to evaluate the effect of small size. They found that small states do not have different per capita growth rates than other states. But they do have greater volatility in their annual growth rates. However, this volatility is a result of their openness to international trade—and the net benefits of openness on growth are positive. Alesina and Wacziarg (1998 ) also argue that small countries face stronger incentives to remain open to international trade given the small size of their internal markets. Interestingly, Armstrong and Read (2002 ) found that vulnerability has a statistically significant positive effect on the long-term economic performance of small states. They attribute this to the likelihood that there is a strong correlation between openness and growth since exports are the primary source of growth for small states. Armstrong et al. (1998) find that a small agricultural area, and the overall sense of vulnerability in small countries, is expected to induce the small country to direct more of its attention to trade and to diversifying its production. In order to examine these effects in the Arab world, I include measures of population size, area, and fractionalization in my model. The assumption with regard to vulnerability is presented in Figure 8.

The argument here is that small countries will tend to engage in international trade to reduce their vulnerability resulting from limited resources. This tendency can be supported by the presence of natural resources, mainly oil, which might help open the

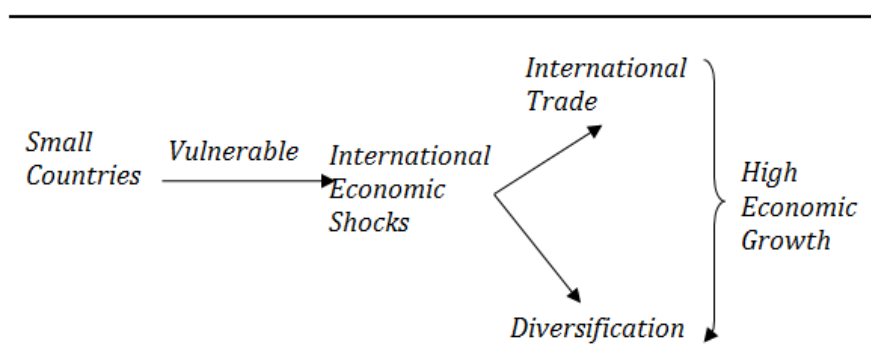


Figure 8. Hypothesis: Relationship between vulnerability of small countries and economic growth.

countries to international trade and provide resources that guarantee the independence of the regime and its interest in satisfying social needs in order to maintain control, as well as providing the financial resources and foreign expertise needed for institution building and economic diversification.

### Political Stability and Growth

The hypothesis that political stability matters for economic performance has occupied important part of the literature in comparative politics as well as public administration and policy. As early as 1968, Samuel Huntington's classical "Political Order in Changing Societies" drew attention to the superiority of political stability to democracy as a determinant of long term economic growth. Huntington argued that what matters for economic growth is political stability, rather than whether particular political institutions are either democratic or authoritarian. Huntington's argument is that any set of political institutions can promote economic development as long as they maintain political order. The danger lies in political instability (S. Huntington 1968).

Arab systems can be described using terms employed by Islam and Weiner as either Tinpots or totalitarians (Islam and Weiner 2004). Tinpots do not invest in either repression or loyalty given their shorter time horizons. Totalitarians, on the other hand, use both repression and loyalty to maximize their power. Most autocratic systems fall somewhere in between these two extremes. Investment in loyalty can be of special importance for institutional building and the protection of individual rights, including the rights to property and contract protection. Generally speaking, an autocratic regime with a long time horizon will tend to invest in institutional building and avoid harmful rent-seeking—an outcome that might lead to opening the internal market for international trade. This is close to what Olson meant by the “invisible hand” which leads to a conformity between the self-serving behavior of the autocrat (stable bandits) and long term economic prosperity (Olson 1993, 2003).

The literature addresses the issue of political stability from a number of perspectives. The way I perceive the influence of political instability on economic growth involves a time dimension. That is, political instability exists in time and space. The space dimension involves the vulnerability issue referred to earlier—smaller countries will be more vulnerable. This might give an incentive for the regime in power to improve its economic performance and hence defend its independence if this regime expects a long term stay in power. Determinants of political stability at the “present” time horizon are often considered in terms of threats to regime survival. I perceive this to be one dimension for stability, which refers to the possibility of regime change through constitutional means in democracies or irregular and possibly violent means in non-democracies.

The other two dimensions of political stability as I perceive them involve the past and future. A longer stay in power creates an expectation of a longer stay for the political regime. Another important dimension involves the future; which mainly refers to power transition. The institutional framework for power transition; that is, political succession of the head of state, could be perceived as critical for determining the time horizon of political elites in the Arab systems which are generally non-democratic. Political succession in the Arab world has often been marred with tension given the long stay in office of incumbent heads of state and the lack of apparent successors given the near absence of political institutions capable of providing political upbringing for potential leaders. The institution of inheritance in monarchies guarantees a degree of security and stability that republics in the Arab world lack<sup>12</sup>. The current uprisings in a number of Arab republics, which have ousted President Ben Ali and Mubarak in Tunisia and Egypt and Tunisia respectively, are examples of the greater tension resulting from political succession in republics compared to monarchies.

The literature seems to agree on a negative relationship between political instability and economic performance, despite a number of exceptions in which no or limited evidence of reduced growth was found to result from political instability (Haber and Razo 1998; Londregan and Poole 1990). The effect of political instability is often

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12. Tullock (1987) pays special attention to institutions of political succession in constructing equilibrium in non-democracies. He argues that because there are no strong institutions ensuring consensus and regulating the election and succession of leaders, nondemocratic regimes rapidly degenerate into personal rule. (Acemoglu, Egorov, and Sonin (2009) use the same logic in arguing that the equilibrium in non-democracies will include a junta of military or civil leaders. The absence of strong institutions not only enables some junta members to eliminate others, but also implies that current members cannot make credible commitments. In particular, they cannot refrain from engaging in further rounds of elimination. Stable and widely approved methods of political succession will therefore direct the attention of the elites toward long term growth rather than diverting resources toward competitive elimination.



discussed with regards to its effect on investments as well as the time horizon of the regime in power and its economic decisions.

As a variable affecting economic and investment decision making, political instability is often perceived as a factor affecting investments decisions. Alesina, Özler, Roubini, and Swagel (1992) define political instability as the propensity of government to collapse. They study whether a high probability of an executive collapse will reduce growth. Their main result is that in countries and time periods with high propensity of government collapse, growth is significantly lower than otherwise. They also find that contemporaneous low economic growth does not increase contemporaneous propensity of government changes. They find no evidence that economic growth is significantly different when authoritarian regimes are compared to democracies. Barro (1991) finds that growth rates are positively related to measures of political stability and inversely related to a proxy for market distortions.

From the perspective of its effect on economic stability and investment, Alesina and Tabellini (1988) examine the effects of political uncertainty on investments and capital flight. The possibility of a government collapse leading to a new government prone to tax capital and productive activities implies a substitution of productive domestic investments in favor of consumption and capital flight, thereby leading to a reduction of domestic production. Rodrik (1989) finds evidence that even moderate amounts of policy uncertainty can act as a hefty tax on investment, and that otherwise sensible reforms may prove damaging if they induce doubts as to their permanence.

There is also evidence that political instability distorts rational decision making. Cukierman, Edwards, and Tabellini (1989) and Rodrik (1989) find that the more unstable

and polarized the political system, the more inefficient is the equilibrium tax structure. Political instability makes tax structure inefficient in that tax collection is more difficult to administer. Similarly, Ozler and Tabellini (1991) find evidence that indicates a positive effect of political instability on the demand for sovereign loans, and that domestic political instability increases the demand for sovereign borrowing. This result can explain why some countries accumulated so much external debt over a short period of history. There is also evidence that the equilibrium level of debt is larger the larger the degree of polarization between alternating governments and the less likely it is that the current government will be re-elected (Alesina and Tabellini 1990; Tabellini and Alesina 1990).

According to these arguments, non-democracies can attain high levels of economic growth if the regime has a high probability of remaining in power coupled by a degree of insecurity or vulnerability that acts as a catalyst for establishing functional economic institutions. Politicians who have a long-term horizon for staying in power have an interest in the common domain (Long and Shliefer 1993). Therefore, their activities, even those that aim at personal gain, will also be beneficial for the society at large (McGuire and Olson 1996; Rose-Ackerman 1999). This is also expected to reduce illegal rent seeking or corruption (Manzetti and Black 1996; North 1990).

The reason for this is that an autocratic regime which has a long time horizon will tend to invest in the provision of a peaceful order and infrastructural projects for long term development. The autocrat in this case will be “a stationary bandit” with long term interest in the polity (McGuire and Olson 1996). On the other hand, the incentive to exploit resources for personal gain, in the case the autocrat expects a brief tenure, in addition to the uncertainty of succession in autocracies, implies that such regimes will

rarely have good economic performance. Given the limited application of human rights, including in such matters as property rights and contracts, long term economic development can hardly be achieved (Olson 1993). This argument was also supported by empirical results (Alesina, et al. 1992; Alesina and Tabellini 1990; Clague, Keefer, Knack, and Olson 1996 ).

The previous literature focuses on the effect of political stability on economic decision making and investment decisions. In addition, history of political instability also matters for economic performance. A history of instability could be reflected in diverting resources to unproductive purposes. In countries where political leaders are relatively weak, i.e. more easily overthrown, the probability of revolutions is higher, and citizens have higher incentives to engage in revolutionary activities rather than productive market activities. On the contrary, a strong ruler who makes a revolution unlikely to succeed discourages revolutionary activities in favor of market activities (Grossman 1991). Mbaku (1991) finds that as a political system becomes unstable, rent allocated to the military increases.

In summary, the previous literature should draw our attention to two time dimensions to addressing political instability. At the present dimension, an expectation of political instability or government change leads to economically inefficient decisions in order to affect the decisions of a future government or extract resources before leaving office. A history of political instability directs resources to activities aiming at uninstalling the existing regime paralleled by expenditure on security measures to protect the regime in power.

It is important to note that there are differences between democratic and authoritarian regimes with regards to the effect of this sense of stability. A history of regime survival creates a sense of stability. In democracies, the stability of democratic institutions is expected to guarantee the requirements for economic growth. However, in non-democracies, too much political stability is arguably counterproductive, since this situation does not allow the political regime an incentive to work for long term growth. In other words, a degree of political instability in non-democracies plays the role of elections in democracies; that is, it gives the regime an incentive to build institutions and adopt policies that lead to long term growth in order to guarantee its survival in power (Bar-El 2009).

This is the case in non-democracies since political stability in these regimes arguably works in two opposite directions. On the one hand, political stability creates a long term horizon for the political elites and hence encourages them to invest in long term growth. But on the other hand, political stability in such regimes can reinforce patterns of corruption (Langbein and Jin 2006) and rent-seeking activities (Huther and Shah 2000; Klitgaard 1998; Meier and Holdbrook 1992). This later group of research which focuses on non-democracies involves an element of the past and future.

The third time dimension of political stability that I believe is especially important to the situation in the Arab region is related to the future, i.e., the expectation of regime survival. I believe this dimension is based in part on history, or the regime's continuation in existence, as well as on mechanisms for power transition. Regarding the later point, monarchies are expected to have a longer time horizon and hence be more interested in long term growth.

The future element refers to the presence of a guarantee of regime survival. As explained earlier, the situation in the Arab world, where the norm is for heads of state to remain in power until their death (or until they are ousted out of power sometimes by members of their own clique as were the cases in Algeria and Oman for example<sup>13</sup>), means that the mechanism of power transition gains special importance for the future dimension of political stability. The popular acceptance of power transition based on heredity in monarchies reduces system disruption and gives the incentives for elites to invest in long term growth since their time horizons extends across generations within the ruling and other elite families.

A number of monarchies in the Arab world have another distinguishing characteristic—a form of divine right to rule. This right is based on lineage, which is often claimed back to Prophet Muhammed. For example, the Hashemite Kingdom of Jordan is so named because of the claim that the ruling family belong to the Hashemites, the Quraysh clan from which Prophet Muhammed was a descendent, and that the family could trace their lineage back to him. Similar claims are made by the Moroccan ruling dynasty. This source of legitimacy is very difficult to challenge and is used as a method

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13. Algeria witnessed significant civil disturbances which escalated into civil war in the 1990s. The first time an Algerian President was ousted out of power was in 1965 when the Minister of Defense Houarri Boumedienne seized power from incumbent president and independence war icon Ahmed Ben Billa. The intervention of the army to remove Chadli Benjadid after the Islamists started achieving unexpected gains in the parliamentary elections ushered in a period of civil war that claimed thousands of lives, including the life of President Mohamed Boudiaf, who was seated by the army and then killed with some sources accusing top army commanders of being involved in eliminating him. The case of Oman is telling about the possibility of turmoil in power transition even when power transition is based on heredity. The incumbent Sultan of Oman, Sultan Qaboos Bin Said overthrew his father in 1970 and has since remained in power. Other examples of power transitions include the assassination of Egypt's President Anwar El-Sadat in 1980 by Islamic extremists to be succeeded by his Vice-President Hosni Mubarak, and the intense power struggles in countries such as Syria and Iraq during the 1970s and 1970s. The 2011 uprisings in Tunisia and Egypt represent a new pattern where presidents were forced to leave office under

to allow the King to rise above political conflicts while still manipulating them, in addition to giving him almost “divine rights to rents.” Families, clans, and tribal affiliations also play an important role in the legitimacy of Arab monarchies. These traditional ties create a form of general acceptance to the distribution of roles in society. This kind of social relationships creates a degree of stability that is difficult to neglect.

### Democracy and Growth

During the time frame of this study, which stops short of the recent pro-democracy uprisings that have swept a number of Arab countries as of late 2010 and early 2011, none of the Arab countries could qualify as democratic according to a number of democracy indices. However, I perceive that including some measure of democracy is important for a number of reasons. First, in this part of my dissertation, I am replicating previous studies, which usually had an interest in the role of democracy in economic growth. Second, there is some degree of variation in the level of democracy among Arab countries and, especially after the invasion of Iraq in 2001, a degree of political openness swept a number of countries in the region<sup>14</sup>. Finally, there is the argument of Fareed Zakaria that what matters for real democracy is Constitutional Liberalism, which refers to the protection of the individual’s autonomy and dignity from coercion, whatever the source of this coercion is—state, religious institutions, or society This term refers to the

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popular pressures.

14. Some analysts argued that authoritarianism in Arab countries has changed, but not diminished. In fact, it could have even become stronger. Although more flexible and, sometimes, more pluralistic. It combines economic liberalization, controlled participation, selective cooptation of certain groups, and selective censorship of the media (Heydemann, 2007).

rule of law, separation of powers, and the protection of freedom of speech, assembly, religion, and property (Zakaria 1997). Although all Arab countries are low on democracy indicators, whether with regards to procedural or liberal democracy, there is still some variation which makes including this variable of some value<sup>15</sup>.

There is no agreement in the literature regarding the role of democracy in economic growth. A trend in the literature finds no systematic relation between democracy and economic growth (Acemoglu, Johnson, Robinson, and Yared 2005; Baum and Lake 2003; Helliwell 1994; Adan Przeworski 1993). Acemoglu et al. (2005) find no statistical association between income per capita and various measures of democracy. They conclude that the long-run evolution of income and democracy is related to historical factors. When such a relationship was found, the direction of causation was not clear (Hero and Tan 2001).

However, democracy is often perceived as an indirect contributor to economic performance. Scully (1997) concludes that a modern standard of living is quite impossible to achieve without free institutions. Politically open societies, which subscribe to the rule of law, to private property, and to the market allocation of resources, grow at three times the rate and are two and one-half times as efficient as societies in which these freedoms are abridged (Scully 1988).

Therefore, the most compelling conclusion is that which finds an indirect relationship between democracy and growth based on the ability of the former to aid

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15. A number of studies pointed to variations in democratic developments in the Arab world, especially with the rise of various forms of organized opposition in a number of Arab countries after 2003 following the invasion of Iraq (See for example (Hamzawy and Brown, 2007).

political stability (Feng 1997), to improve human capital formation (Feng 2001), promote health care, education, and investment (Baum and Lake 2003; Helliwell 1994), direct more expenditure toward public goods provision instead of rent seeking (Plümper and Martin 2003), help institutional development (Adam Przeworski, Alvarez, Cheibub, and Limongi 2000; Rodrik, Subramanian, and Trebbi 2004), and reduce population growth (Adam Przeworski, et al. 2000). It thus could be argued that development, broadly defined to cover all forms of human progress and the enjoyment of a better quality of life, is correlated with democracy (Shihata 1997).

The literature also pays special attention to the role of democracy in promoting human development. When it comes to education, there is clear evidence that democracies spend more on primary education, which primarily benefits the poor, especially as compared with tertiary education. Brown (2002) examined the impact of democratization on education policy in Brazil. He finds that democratization has observable effects on education spending on three different levels: 1) the percentage of government spending allocated to education; 2) the distribution of federal funding among different levels of education; and 3) the distribution of funds within primary education among state and local actors. An alarming finding is that non-democratic elites may block technological and institutional development because these developments might increase the likelihood that they will be replaced (Acemuglu and Robinson 2006). The fact that pro-democracy uprisings in Tunisia and Egypt, among other Arab countries, started through calls for demonstrations on such websites as Facebook and Twitter, is an evidence that this regime response is a high likelihood.



Brown and Hunter (2004) assessed the impact that democracy has on the distribution of resources between different levels of schooling and on total spending on education. Specifically, they test whether democratic governments allocate a greater share of resources to primary education, the level that benefits the largest segment of the electorate and that is most critical for human capital formation in developing countries. They find that democracies devote a higher percentage of their educational resources to primary education and that they maintain higher absolute spending levels on education in the aggregate, thereby enhancing the prospects of human capital formation. Also Brown (1999) finds significant empirical relationship between democracy and the accumulation of human capital: among low-income countries, democracies enroll a larger percentage of their school-age population than do authoritarian regimes. Democratic politicians are more likely than authoritarians to provide a minimum level of educational opportunity, no matter the income level of their citizens. Small changes toward democracy can produce important gains in primary school enrollment.

Brown and Hunter (1999) studied 17 Latin American countries from 1980 to 1992. They found that, especially in poor countries during economic crises, democracies increase the allocation of resources to social programs relative to authoritarian regimes. This suggests that the latter are more constrained by economic forces, whereas democracies are more constrained by popular demands. Similar evidence was found regarding the effect of democracy on primary school enrollment and government spending in Africa (Stasavage 2005). On the other hand, part of the literature argues that totalitarianism increases public spending on education (Lott 1990) and that public

educational expenditures vary in similar ways to government ownership of television stations used to control information the citizens receive (Lott 1999).

The history of colonialism plays an important role in institution formation, including legal and educational institutions, and could be related to the system of governance post-independence. Regarding education, Grier (1999) finds that the identity of the colonizing power has a significant and permanent effect on subsequent growth and development, and that the British were more successful in educating their dependents than were the French. Regarding the legal system, the argument is that legal origins are exogenous since they are imposed by the former occupier, and that the British civil law is correlated with better protection of investors and, therefore, a history of British colonialism has a positive effect on growth (Joireman 2001; La Porta, Lopez-de-Silanes, and Shleifer 2008; Lange 2004).

It is important to consider the special context of the Arab world in examining the effect of British colonialism on Arab countries. This is an important premise of this study which is based on the principle that context matters. A number of Arab countries had achieved important progress on social and economic modernization, including education and women's rights, before the advent of colonialism, which actually reversed this track (Khalidi 2004). It is also arguable that legal origins are not simply a function of the colonial power which imposed its own legal code. The legal foundations of a country can also be based on cultural choice (Kantor and Roberts 1995). For example, this was the case in Egypt where the legal code is based on the French civil law given the French influence and resentment of British colonialism. In addition, the role of colonialism interacts with history in determining the nature of the entrepreneurial class present after

colonialism. Where this class was active and engaged in productive enterprise, as was the case in Tunisia, the development of capitalist classes and production structures continued after independence. Where these classes were perceived as parasitic and protégés of the occupiers, as was the case in Egypt, there was a counter-development that stressed nationalization and limited property rights (Richards and Waterbury 2008). Such historical aspects mean that a simple approach to understanding the effect of colonialism based on a perception of imposed legal origins and varying degrees of interest in education and institution building can be limited.

#### Natural Resources and Growth

Oil is one important factor affecting economic performance in the Arab world. This is not simply because it is an important source of income for some countries, but also because it allows for social spending thus guaranteeing a source of independence and political stability, as well as allowing the political elites rents which increases their ability to maintain and defend their stay in power. While these rents and imbedded interests could increase interest in long term investments, creating stable institutions, and protecting property rights, they could also distort spending away from long-term human and social development and toward security measures to protect regime survival and buy elite support through distributing rents and other benefits using such measures as spending on tertiary education rather than primary education. Given this critical role that oil can play, I explore in this section the main theories and empirical findings regarding the effects of natural resources on economic, political, and human outcomes.

Oil wealth in the Arab Middle East can explain a good deal about the variation in social and economic outcomes among countries in the region and the low achievements on education and the social status of women. The effect of oil in the region may be also contagious given that many of the oil rich countries also had low labor supplies and therefore had to import labor from other Arab countries, especially during the 1970s.

In this sense, oil was one factor for expanding a number of cultural norms among Arab countries, from the spread of veiling among young women the Gulf to other Arab countries to consumption patterns, to Jihad against the Soviet invasion in Afghanistan and the spread of conservative and sometimes extremist ideas. In other words, oil has been one influential determinant of the social order in Arab countries starting the 1970s, with lingering effects to the present (Ibrahim 1982). This argument is an extension of my logic stressed earlier that culture and religion are based on power dynamics and interactions among groups and movements that could lead to the spread of certain ideas from one country to another or within the same country. Oil wealth strengthened traditional norms in countries such as Saudi Arabia and it also allowed the spread of certain of these values to other countries through economic influence as well as expatriate labor. It's also true that the cooperation among autocratic regimes in the region is fostered through the leverage provided by oil wealth. The fact that Saudi Arabia and UAE sent troops to support the Bahraini regime against the pro-democracy uprisings, which were portrayed as pro-Iranian Shiite uprisings, attest to the perception of common destiny based on similar models of state creation and wealth distribution generated through oil revenues.

In this sense, the social and economic effects of oil can explain some commonalities as well as variations in the region, and give better explanations for its low level of social and political development. These explanations will help us understand what I referred to as the dynamic environments of the regime and society. These dynamic interactions could provide more convincing explanations of the region's status compared to the more static focus on such factors as religion and culture.

Earlier research, prior to the 1980s, followed the conventional wisdom that natural resource abundance contributes to economic growth. In his famous analysis of the stages of economic development, Rostow argued that natural resource abundance is a factor that could help economic development (Rostow 1961). Balassa (1981) made a similar argument in analyzing the process of industrial development and strategies.

Another trend has challenged this perspective. Despite their value as a source of income, natural resources have often been perceived as a factor holding back human and economic development. The natural resource curse refers to the paradox that countries with abundant natural resources, or that enjoy large supply of a particular valuable resource, also tend to function poorly on a variety of economic, political, and social measures (Pegg 2005). A number of empirical studies showed a relationship between resource dependency and the rise of civil wars (Collier and Hoeffler 2004; Fearon and Laitin 2003; M. Ross 2006a), the spread of corruption (Papyrakis and Gerlagh 2004; Vicente 2005), the slowing down of economic growth (Gylfason, Herbertsson, and Zoega 1999; Sachs and Warner 1995), the hindrance of economic reforms (Amin and Djankov 2009), and the weakening of institutional capacity (Isham, Woolcock, Pritchett, and Busby 2005). Chaudhry (1994) argues that oil revenues and labor remittances curtailed

the need for economic reform in the Arab world during the decade between 1973 and 1983. As a result, the bureaucrats and private sector elites were strongly tied to the state.

There seems to be an agreement in the literature that the limitations on economic and political competition that result from a resource boom facilitates bureaucratic and political control and therefore can create patronage and patrimonial redistribution. For example, patronage in oil-rich countries is reinforced through populist policies, like welfare policies, which become affordable through oil revenues. Oil revenues therefore lead to reducing the government's incentive to establish "good" governance mechanisms, as well as strengthening the coercive capacity of the elite (Alayli 2005; Billon 2007). When governments do not have to rely on taxation, the incentive to establish governance mechanisms is minimized (Moore 2004).

Oil is therefore perceived as a cause for lowering the levels of democracy and hindering democratic development (Jensen and Wantchekon 2004; M. L. Ross 2001). Oil wealth increases the interest of the political elite in staying in power (Vicente 2005). This means that more resources are dedicated to remaining in power, leading to discounting the future even less and hence less efficient resource extraction, as well as encouraging the politicians to engage in less efficient distribution (Robinson, Torvik, and Verdier 2002). Strengthening the security apparatus in oil-rich countries could thus be perceived as a result of the higher propensity of civil wars in oil rich countries, as demonstrated in the literature reviewed earlier, and the availability of resources for such strengthening.

Ades and Di Tella (1999) found that countries that enjoy more rents tend to be more corrupt. The reason is that the bureaucrat in an agency that has high control rights also has higher incentives for extracting resources. The state's control over all the aspects

of the dominant economic sector might also lead to the same result. Montinola and Jackman (2002) attribute corruption in OPEC countries to egregious forms of state intervention. The extraction of natural resources might require huge initial investments. This allows corrupt politicians more leeway in extracting bribes and resources from firms. If these firms can switch between different technologies, they will prefer to use inefficient technologies with low sunk costs so that they can gain more flexibility in reacting to future demands from corrupt officials (Choi and Thum 2004).

Other studies used rent-seeking models to understand the effect of a natural resource endowment on growth. Torvik (2002) concludes from his model that a greater amount of natural resources increases the number of entrepreneurs engaged in rent seeking and reduces the number of entrepreneurs running productive firms. Baland and Francois (2000), while also using a model of rent seeking, argue that whether the economy will be inclined either toward a predominance of rent seeking or a predominance of productive economic activity as a result of a natural resource endowment depends on the point at which the economy started. If the number of entrepreneurs is already large, a resource boom will increase entrepreneurship and thus further raise income. However, if a large proportion of individuals are engaged in rent seeking already, such increase inclines the economy toward more rent seeking and in turn may lead to a decline in aggregate income.

Damania and Bulte (2005b) explain the resource curse phenomenon by developing a lobbying game in which rent seeking firms interact with corrupt governments. The model goes in the following way: a resource boom directs investments toward the resource sector. Resource firms find that the marginal value product of

government support has gone up and they lobby for more support. On the other hand, the shift of resources toward the resource sector will lower the marginal value product of government support for the manufacturing sector. A resource boom will thus direct the support of the autocratic government to the resource sector. The reason is that the level of bribes offered to the incumbent are higher. This further distorts the efficient allocation of resources. However, political constraints in the sense of the presence of political opposition can restrain the incumbent. That is, in the face of a threat to be ousted by the opposition, the incumbent finds in his interest to provide more manufacturing-specific public goods to counteract the relative improvement in the profitability of extraction. In conclusion, the resource curse occurs when the incumbent can effectively suppress all political opposition to his or her policies. Whether it is feasible to purchase policies that trigger a “resource curse” is determined by the presence or absence of political competition.

Therefore, the factors that determine the effect of natural resources on socioeconomic development include the presence or absence of political competition (Damania and Bulte 2005a), public pressure and control over politicians (F. X. Sala-i-Martin and Subramanian 2003), and effective institutions (Bulte, Damania, and Deacon 2005; Mehlum, Moene, and Torvik 2005). Dietz, Neumayer, and Soya (2007) argue that the negative effects of resource abundance are reduced if corruption is reduced.

Another important, and highly relevant, effect of natural resource abundance is that concerning its effect on cultural values and traditions. M. Ross (2006b) argues that oil has a harmful effect on the economic and political status of women. It reduces the participation of women in the labor force by crowding out the economic sectors that tend



to employ women (such as export-oriented light industry and agricultural processing) in favor of sectors that employ men (such as construction, heavy industry, and retail), reducing their ability to organize politically. This solidifies patriarchal institutions and fosters authoritarianism. Ross also argues that once oil production is taken into account, cultural explanations of the persistence of patriarchy in the Middle East lose much of their explanatory power.

This literature directs attention to the importance of institutions in determining the effects of natural resources. It also directs attention to the role of democracy and political competition in determining the effect of a natural resource discovery or boom on the economy and society. The above literature also points out that natural resources can have different effects on the political, economic, and social developments in the societies where they are found. Politically, natural resources hinder democratic development, reduce social mobility, and foster traditional institutions since they increase the interest of the elite in staying in power and offer them enough resources to use toward this objective. The result could be directing more resources toward suppressing opposition in addition to buying the support of other elites. These same policies could have positive economic effects if they are directed toward economic growth which helps more resource extraction. However, from a human development perspective, the resource sector gains more attention compared to other productive sectors which might need skilled human labor in various specializations, thus reducing the relative importance of human capital. This hypothesis will be examined in the quantitative analysis in this section and pursued further in later chapters.

## Education and Economic Growth

I will also address the effect of education on GDP percentage growth in Arab countries. This is an important starting point for the further analysis in the coming three chapters. While education could be perceived as endogenous, exogenous growth theories, as will be explained below, also include education as an independent variable in explaining economic growth given its role in absorbing and making use of technological developments coming from outside the country. It is also important to examine the conclusion in some of the literature on the role of education in economic growth. These conclusions were contradictory, and part of the literature concluded that education does not have spillover effects on the national level, although there is wider agreement that it has a positive effect on individual income. The results for Arab countries were particularly interesting since the coefficient for education in growth models was either insignificant or negative. I review this literature below.

The research on the role of education in economic growth has usually addressed the issue from a macro perspective, using either quantitative measures, such as school enrollment and spending (Pritchett and Filmer 1999), or qualitative measures, such as student achievement on standardized exams, to measure educational achievement. This literature used various measures and specifications, and there is a lack of consensus regarding the effect of education on economic performance, although the literature which was able to use measures of education quality reached more consistent results regarding the positive effect of education on economic growth. This literature used a macro approach to economic growth, as well as an individual level approach that addressed the effect of education on individual income, and whether there are positive externalities for

this effect. On the other hand, the literature which addressed the determinants of education quality usually addressed the topic from an individual level of analysis, focusing on such factors affecting student achievement as family background (J. S. Coleman 1966; Fuchs and Wößmann 2007; Heyneman 1979; Woßmann 2005) and institutions (Fuchs and Wößmann 2007; Woessmann 2001 ).

While it could be argued that there is possibly an endogeneity problem between education and economic performance in a macro study of the economy, the literature, whether based on a neoclassical approach, endogenous growth models, or exogenous growth models, used measures of education as independent variables. (Barro 2001) describes the neoclassical growth model in the following points: (1)  $Dy = F(y, y^*)$  where  $Dy$  is the growth rate,  $y$  is per capita product, and  $y^*$  is the long-run level of  $y$ . In the neoclassical model,  $Dy$  is inversely related to  $y$  and positively related to  $y^*$ . The value of  $y^*$  depends on government policies and institutions and on the character of the national population. For example, better enforcement of property rights, fewer market distortions, and a greater willingness to save tend to raise  $y^*$ . In a setting that includes human capital,  $y$  would be generalized to encompass the levels of physical and human capital. In some theories,  $Dy$  rises with the ratio of human to physical capital.

Barro (1991) and Lee and Lee (1995) point out that the endogenous models of economic growth may be specified by a reduced-form equation:

$$y = \alpha + \beta (GDP)_0 + \gamma (H_0)$$

Where  $y$  alternately represents growth rates of real GDP per worker, shares of the physical investment in total output, or fertility rates; and where the explanatory variables  $(GDP)_0$  and  $H_0$  are the initial levels of GDP per worker and human capital per worker respectively. On the other hand, the exogenous growth models define  $y$  only as the GDP growth rate on the same set of exogenous variables on the right-hand side.

Hanushek and Kimko (2000) argue that direct estimation of international production functions does not support the hypothesis that stronger growth leads nations to invest more on education. Hanushek and Wößmann (2007) also addressed concerns about endogeneity between measures of education quality and economic growth. The first concern is that schooling might not be the actual cause of growth but a reflection of other attributes of the economy that are beneficial to growth. For example, the high scores of students from East Asian countries on standardized tests could be a result of their economic growth. However, they find empirical evidence that even if East Asian countries are excluded from the analysis, a strong, albeit smaller, effect of education could still be found on economic performance. Another concern is that other factors that affect growth, such as efficient market organizations, are also associated with efficient and productive schools. This could mean that test scores could be attributes of other attributes of the economy. They use evidence from immigrant workers in the United States and find that immigrants from countries with higher test scores on mathematics and science tests achieve earnings advantages. Finally, a number of studies found that expanding access to education as well as its quality are not directly related to resources available on the national and school levels (see for example (J. S. Coleman 1966; Woessmann 2001 ). The expansion of education access and the narrowing of the gender

gap across Arab countries shows that national income was not critical as ideological and historical factors (Richards and Waterbury 2008).

The relationship between education and economic performance were addressed from two main perspectives in the literature: economic returns of schooling for the individual and externalities of education on the economic level. Mincer (1970, 1974) used the human capital approach in the analysis of personal income. He found a positive correlation between years of schooling and earnings. He also pointed to the important dimension of quality in measuring the effect of education on individual earnings. Harmon, Oosterbeek, and Walker (2003) also find compelling evidence on the private returns to investment in education.

On the macro level, part of the literature found a positive effect of quantitative measures of education, such as years of schooling, change of the years of schooling, and enrollment rates, on economic performance (Gemmell 1996; Krueger and Lindahl 2001; Lau, Jamison, and Louat 1990; Lucas 1989; Mankiw, Romer, and Weil 1992; Nehru, Swanson, and Dubey 1995; George Psacharopoulos 1994; X. Sala-I-Martin, Doppelhofer, and Miller 2004). Romer (1989) found that the initial levels of literacy help predict the subsequent rate of investment and, indirectly, the rate of growth.

This evidence regarding the lack of a direct effect between education and economic performance, or positive externalities of education, is of special interest in the context of Arab countries. Psacharopoulos and Patrinos (2004) argue that, on the micro level, there are tangible and measureable returns to investment in education, but such evidence is not as consistent and forthcoming in the macro literature. Using a modified

dataset for the years of schooling across countries for the period between 1960 and 2000, Cohen and Soto (2001) also find no externalities resulting from education.

Pritchett (2006) focuses on the questions: does education assist in economic growth? His answer is, largely no. His analysis rejects the presence of output externalities for education. He argues that the evidence on the academic consensus of a positive relation between education and economic development is not clear, and that the ability of schooling per worker to explain cross-national differences in growth performance over medium- to short-term horizons is very small. Boissiere (2004) puts this argument clearly by stating that simply getting children into school is not enough.

Studies that relied on a quality approach often found a stronger effect of education on economic performance. The main argument is that quality measures of education, such as literacy scores, outperform quantity measures such as those based on the years of schooling (Barro 2001; Coulombe and Tremblay 2006; Coulombe, Tremblay, and Merchand 2004). Hanushek and Kimko (2000) use data based on international student achievement tests to measure education quality and find a statistically significant effect of the quality of education on economic growth. The effect of education quality dwarfs the effect of quantity on growth. Woßmann (2003) argues that the quantitative approach to measuring education attainment amounts to a measurement error. He finds that when accounting for education quality, the amount of variation in economic outcomes attributable to education rises substantially.

On the other hand, while Bosworth and Collins (2003) find evidence that measures of education quality are correlated with growth, this finding was not robust to the inclusion of broader measures of institutional quality. Hanushek and Woßmann

(2007) puts this argument in simple words by stating that education alone cannot lead to economic growth in the absence of other important economic institutions. In other words, quality education is just one input into the process of economic growth. Simply providing more or higher-quality schooling will lead only to limited economic growth in the absence of other elements such as the appropriate market, legal, and governmental institutions to support a functioning modern economy. Easterly (2002) takes a similar position in his argument that education is a necessary but not sufficient condition for growth. Seizing technological opportunities requires a minimum level of skill, basic infrastructure, some previous technological experience, and favorable government policies. Despite his pessimism about the yield from investments in higher education, he indicates the need for a labor force with sufficient educational achievement working with sophisticated, productivity-enhancing, technologies.

The individual level of analysis is dominant in attempts to understand determinants of education quality. This research concluded that resources are not systematically related to achievement (J. S. Coleman 1966; Hanushek 1995; Woessmann 2001 ). Kremer (1995) agrees with Hanushek (1995) that introducing more performance incentives to schools and more extensive experimentation and evaluation of educational programs and school organization, rather than increasing spending, is what creates more effective results and reduces inefficiencies. Gundlach and Woßmann (2001) find that the rise in schooling prices in six Asian countries was not matched by a rise in student achievement between 1980 and 1994. They attribute this decline in results to the decisions of governments to increase the amount of schooling inputs without ensuring improved quality of schooling output. Fiske (2000) argues that after a certain level of

spending, other factors contribute to individual achievement such as family background. On the other hand, Lockheed and Verspoor (1991) identify five core contributors to primary education effectiveness: (1) curriculum, (2) learning materials, (3) instructional time, (4) classroom teaching, and (5) students' learning capacity.

The evidence cited above on the individual and economic returns of education, as well as determinants of education quality, suggests that the situation in Arab countries where education spending and expansion of education opportunities did not have a direct effect on economic growth should not be surprising. After all, spending per se does not determine quality. But even quality alone is not enough to automatically lead to economic growth without the appropriate market, legal, and government institutions and a minimum level of technological progress in the economy. Some Arab countries were able to achieve progress on education quality, such as Jordan and Lebanon, although their economies still suffer from unemployment (Middle East Youth Initiative 2009). The question remains as to whether this will have a positive effect on the economy.

Another important point regarding the effect of education on economic performance is related to the nature of the economy. According to Nelson and Phelps (1966), the rate of return to education is greater the more technologically progressive is the economy. Education quality by itself is not expected to have a positive effect on the economy without a particular level of technological development. Trade openness was also found to be an important link between education levels and improvements in output growth (Ciccone and Papaioannou 2006). In line with this arguments, Benhabib and Spiegel (2005) concluded that human capital plays a positive role in the determination of total factor productivity growth through its influence on the rate of catch up.



It is clear that institutions, created through history and influenced by leadership perspective, and the nature of the economy play a determinative force in shaping the prospects of education quality in the Arab world and the possibility of economic growth based on advancements in education. Given the lack of data on education quality, I will use the more available data on student enrollment in this chapter in order to examine the hypothesis that education has no effect on economic performance among Arab countries.

### Methodology

My aim in this empirical analysis is to assess how the regime's material and social context, history, and stability affect economic growth. These groups of variables are hypothesized to have an effect on growth given their effect on the regime's time horizon and institution building. They also tell us about the motivations and driving forces for the political regime, points that will be explored in further details in later chapters to examine education systems and their presumed role in the economy. While the GDP levels vary widely, GDP growth is relatively low in the region compared to other regions. However, there is still some variation in growth rates, especially in recent years, which allows for empirical analysis that aims at understanding the role of the previously discussed factors in determining the economic situation in the region<sup>16</sup>.

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16. While the levels of GDP per capita widely vary in the region, it is the percentage growth which can tell us about factors affecting economic performance in a time series analysis. The literature reviewed earlier used some measure of GDP per capita or GDP growth to estimate the effects on economic performance. Statistically, a time series analysis, like the one used in this chapter, should use growth instead of levels of GDP in order to avoid getting misled by spurious relationships. Levels of GDP can be used in cross section analyses though.

To achieve this goal, I focus on exogenous variables that shape elite orientations, perceptions of threats and opportunities, and set the stage for their material and social context. As previously mentioned, exogenous variables are defined as those variables that exist outside the direct control of the political regime in power. The literature has focused on a number of variables including area, population, heterogeneity of the population, and natural resources. I expect that these variables set the stage for creating two critical dimensions of the regime's context that shape its time horizon and hence its economic, social, and political decisions. These dimensions are vulnerability and political stability.

Vulnerability refers to economic as well as strategic vulnerability. A small country in terms of size is vulnerable to international economic fluctuations as well as foreign invasion. This could be an asset if the reaction of the elite is more openness to international trade and economic diversification as avenues to protect the country's independence.

Political stability is an especially important variable given its centrality in establishing the time horizon of the political regime in power. Political stability is a variable created through time. It includes threats to the regime survival from both internal and external sources. From a historical perspective, the survival of the regime in power and the track record of its policies create expectations regarding the future likelihood of survival. Finally, a sense of guaranteed smooth transition of power further strengthens stability and gives purpose to the regime's long term plans. As will be explained later, my

regression equation will include three measures of political stability that reflect these three time dimensions<sup>17</sup>.

Other sources of exogenous influences also matter in establishing the societal and cultural environments for the political regime in power. Acemoglu, Johnson, and Robinson (2005) attribute the rise of Europe after 1500 to international trade through the Atlantic Ocean. (Ben-David and Loewy (1998) emphasize the role that knowledge spillovers emanating from heightened trade can have on income convergence and growth rates. The point I am stressing here is not openness to trade per se, but rather that trade partners matter; that is, the argument is that trading partners' growth has an effect on domestic growth (Arora and Vamvakidis 2005). But the influence of trading partners on GDP growth should be approached with a special focus on the economic trajectory of Arab countries. Trade with industrialized countries is expected to have a positive effect on growth if it is based on a solid foundation of competitive industries. However, this has not been the case in any Arab country (Richards and Waterbury 2008). I will examine the effect of trade with industrialized countries in my growth equations. History could also be defined as exogenous which could be linked to regime stability, institutional makeup, and whether resources are directed toward securing the survival of the regime or investing in creating job opportunities for the youth.

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17. In the logic of this chapter, I believe leadership and political stability as strongly related. Political stability in the sense of power transition has a direct effect on leadership. Monarchies are expected to have leadership that is more interested in long term growth given their interest in maintaining power within the ruling family. Tradition and history play important roles in shaping their leadership styles and approach to social and economic development.

In order to examine the effects of these exogenous variables on economic performance among Arab countries I estimate time-series cross-section regression analyses with year fixed effects, and a control for the initial level of GDP in the year 1999. The dependent variable is the GDP percentage growth rate. The time period extends between 2001 and 2006. The main reason for this choice is to create as balanced a dataset as possible and to avoid the loss of important countries in the regression analyses. This period of time is also significant since it witnessed a surge in oil prices after the end of the oil boom which started in the mid-1980s. This allows a better insight into the variation of growth in oil rich and oil poor countries and an understanding of the ability of the countries in the region to better mobilize their resources.

The variables used in this chapter reflect the three main building blocks of this study: exogenous variables, history, and political stability/leadership. I list the independent variables below under these three subheadings. This grouping is not intended to be exhaustive, and some variables could fit under more than one category. The purpose of this division is to guide the choice of variables to fit the methodological approach highlighted above.

#### Dependent Variable

Percentage Growth in GDP from 2001 to 2006: This variable is calculated based on GDP, Purchasing Power Parity (constant 2005 international dollars)

$$\text{GDP percentage Growth rate} = \log GDP_t - \log GDP_{t-1}$$

Data are from the World Development Indicators.

## Independent Variables

### Exogenous Variables

Initial GDP in 2000: GDP, purchasing power parity (constant 2005 International dollars) in millions.

Logarithm of Area: Area is measured in square kilometers. The data source is the CIA World Factbook.

Logarithm of Population: Population in thousands. Data for this variable come from World Development Indicators.

Fractionalization: This variable is the summation of the ratings on ethnic, religious, and linguistic fractionalization from Alesina et al. (2002). While the data in this article are from sources generally in the early to mid-1990s, I assume that the social makeup could not have changed significantly between this period and the time frame of the study (2001-2006). I therefore used these figures throughout the time frame of my study. This measure is therefore a constant. Each of the measures of ethnic, religious, and linguistic fractionalization ranges from zero to one, with zero meaning complete homogeneity. The measure of fractionalization therefore ranges from 0 to 3.

Fuel Exports as Percentage of Merchandise Exports: Source – World Development Indicators.

### History

Percentage Trade with Industrialized Countries: Since openness to international trade is more or less endogenous since it is subject to a degree of control by the political

system, I choose to include the percentage trade with industrialized countries<sup>18</sup>. The figures for this measure are calculated from the Direction of Trade Statistics Year Book 2008 and 2001 published by the International Monetary Fund (IMF).

Education: Although education levels and quality could be considered as outcomes of regime policies and investments, it is also an input that could be taken as part of the regime context. Arab countries left the colonial era in the late 1950s and 1960s with very low levels of education, sometimes this was an conscious policy of the occupying force. As a result, post-colonial regimes in almost all countries of the region paid special attention to expanding access to education and enhancing equality through free education (Richards and Waterbury 2008).

This context, which crystallized during the 1970s and was based on revolutionary ideologies or driven by oil wealth which allowed for quantitative expansion in education opportunities, create an opportunity that could be mobilized for growth by present Arab regimes. The literature reviewed above finds more concrete evidence regarding the effect of education quality, as compared to measures of education quantity such as enrollment rates, on economic performance. However, given that very few Arab countries participate in international standardized exams, it is difficult to find enough data for quantitative analysis. On the other hand, since Arab countries had achieved significant progress in terms of access to enrollment, narrowing the gender gap, and establishing equality, it

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18. The category “Industrial Countries” includes the following 23 countries: the United States, Canada, Australia, Japan, New Zealand, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Malta, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom. Together these countries provided represented about four-fifths of the value of recorded world exports and imports in recent years (International Monetary Fund, 2008).

makes sense to measure the effects of these achievements to evaluate how they affected economic growth and whether the political regime was able to make use of them.

The measure of education is enrollment rates in primary and secondary schools<sup>19</sup>.

Figures come from the World Development Indicators.

School Enrollment, primary (% gross): Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown:

*Gross Enrollment in Secondary Education*

$$= \frac{\text{Total Enrollment in Secondary School}}{\text{Population of Secondary School Age}} * 100$$

Primary education refers to the initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment. Source: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

School Enrollment, secondary (% gross): gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown:

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19. Enrollment rates for boys and girls are highly collinear in this dataset, which is a reflection of the situation reviewed in Chapter 1, where I provided evidence of impressive strides in many Arab countries toward reducing the gender gap in student enrollment and achieving a relatively high level of equality in their education systems.

*Gross Enrollment in Secondary Education*

$$= \frac{\text{Total Enrollment in Secondary School}}{\text{Population of Secondary School Age}} * 100$$

Secondary education completes the provision of basic education that began at the primary level, and aims at laying the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized teachers. Source: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

I calculated percentage growth in primary and secondary enrollment and included them in the analysis.

$$\text{Primary Enrollment Percentage Growth Rate} = \log(\text{Primary Enrollment})_t - \log(\text{Primary Enrollment})_{t-1}$$

$$\text{Secondary Enrollment Percentage Growth Rate} = \log(\text{Secondary Enrollment})_t - \log(\text{Secondary Enrollment})_{t-1}$$

I also included variables representing the summation of primary and secondary enrollment and growth in enrollment in both levels.

Democracy: This variable is the summation of Freedom House's ratings on Civil Liberties and Political Freedoms. Each of these measures ranges from 1 to 7, 7 being the least free.



Colonial Heritage: a dummy variable for whether the country was a British colony<sup>20</sup>. The only two countries in the region that have never been subjected to foreign occupation are Saudi Arabia and Yemen<sup>21</sup>; the rest of the Arab region fell under British, French, Italian, or Portuguese colonialism (Khalidi 2004).

Data on the history of Arab countries with colonialism are based on Khalidi (2004) and the CIA World Factbook.

### Leadership and Political Stability

Durability: The number of years since the most recent regime change or the end of a transition period. In calculating the DURABLE value, POLITY IV uses the first year during which a new (post-change) polity is established, coded as the baseline “year zero” (value = 0) and each subsequent year adds one to the value of the DURABLE variable consecutively until a new regime change or transition period occurs. The source of this variable is POLITY IV.

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20. The literature on the effect of colonial history in former colonies, which will be discussed briefly in the Hypotheses section, paid special attention to British colonialism given the assumption that it established better institutions, paid more attention to education, and imposed its legal code, the British Common Law, which provides better guarantees for investments and economic development compared to other legal traditions, especially the French Civil Law. For this reason, I distinguish between countries in the region which were formal British colonies and those which were not. This approach also makes it easier to make the distinction and avoid the complications that could result from the need to track other forms of colonialism by other countries.

21. Yemen is a special case: In 22 May 1990, the Republic of Yemen was established with the merger of the Yemen Arab Republic [Yemen (Sanaa) or North Yemen] and the Marxist-dominated People's Democratic Republic of Yemen [Yemen (Aden) or South Yemen]). Previously North Yemen became independent in November 1918 (from the Ottoman Empire) and became a republic with the overthrow of the theocratic Imamate in 1962; South Yemen became independent on 30 November 1967 (from the UK). Yemen is coded 1 as being a former British colony. Despite the Marxist influence on South Yemen and the absence of British colonialism in Northern Yemen, most sources code Yemen as a former British colony.

Magnitude of internal and interstate violence: Total summed magnitudes of all societal and interstate major episodes of political violence<sup>22</sup>. Since distinction between internal and interstate violence might not be clear, I chose to include the summation of both. The source is POLITY IV.

Magnitude of internal and interstate violence in neighboring states: Sum of all societal and interstate major episodes of violence magnitude scores for all bordering states. Figures come from POLITY IV. Since distinction between internal and interstate violence might not be clear, I chose to include the summation of both<sup>23</sup>.

Monarchy<sup>24</sup>: a control variable for whether the political system is a monarchy or a republic. There are eight monarchies among Arab countries: Bahrain, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

This last group of variables which aims at reflecting political stability also reflects a time element: past, present, and future. The past, or historical dimension is reflected in regime durability. The present dimension is reflected in acts of internal violence and violence in neighboring states. The future dimension is reflected in the mechanism of political succession—whether power transition is based on heredity or otherwise (referendum or presidential elections). Despite the presence of a historical aspect to

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22. Major episodes of political violence are defined by the systematic and sustained use of lethal violence by organized groups that result in at least 500 directly-related deaths over the course of the episode. Each episode ranges on a scale from 0 to 10.

23. The Major Episodes of Political Violence (MEPV) website states that concern about the validity of the distinctions between different kinds of violence could be avoided by using the aggregated categories.

24. This variable is coded 1 for monarchies and 0 for non-monarchies/republics.

political stability, I chose to include these variables in one category given my emphasis on factors shaping the time horizon of the regime in power.

Table 18 presents a summary of variables and measures and how they relate to the main building blocks of this study.

### Descriptive Statistics

Table 19 shows the descriptive statistics for the variables used between 2000 and 2006. One problem facing this regression analysis, as has probably been the case with other research addressing economic growth among Arab countries, is the fact that data is limited. Although the time frame for this part of the study is between 2000 and 2006, there are a number of data points missing, as is clear from the above figures. In addition a number of countries had to be dropped from the analysis due to the lack of data. Iraq and Palestine are already dropped from Table 19. Comoros, Djibouti, Eritrea, Saudi Arabia, Yemen, Libya, and Mauritania were dropped from the regression analysis due to data limitations.

This dropping of countries due to data limitation is not uncommon in studies that attempted to address economic growth in Arab countries. However, my argument is that this loss does not affect how representative the dataset is. Most of the countries dropped are not often included when researchers discuss “central Arab countries.” This group includes countries like Egypt, Syria, Algeria, and Arab Gulf countries. Other countries such as Eritrea and Comoros do not occupy central stage anyway. In addition, since the focus of this study is the shift of the center of innovation and creativity from the old and heavily bureaucratized countries such as Egypt to smaller

Table 18. Summary of Variables and Measures

Variable type	Variable name	Measure	Source
		<u>Dependent</u>	
	Economic performance	Percentage Change in GDP, PPP (Constant 2005 international dollars)	Calculated from the World Development Indicators
		<u>Independent</u>	
Exogenous	Size	Logarithm of area size in kilometers	CIA World Factbook
	Size	Logarithm of population	World Development Indicators
	Groups	Fractionalization	Alesina et al. (2002)
	Natural Resources	Fuel as a percentage of merchandize exports	World Development Indicators
History	Nature of the political system	Democracy	Freedom House Annual Reports
	Colonial Heritage	Colonial power for the longest time period in recent history	CIA World Factbook and Khalidi (2004)
	Education	Primary and secondary enrollment ratios	World Development Indicators
	Trade	Percentage of trade with industrialized countries	Calculated from the Direction of Trade Statistics of the International Monetary Fund
Leadership/ political stability	Political Stability	Durability of the political regime	POLITY IV
	Political Stability	Major events of internal and interstate violence in which the country is involved	POLITY IV
	Political Stability	Major events of internal and interstate violence in neighboring countries	POLITY IV
	Political Stability	Dummy variable for whether the country is a monarchy or a republic	CIA World Factbook

Table 19. Descriptive Statistics

Variable	Number of observations	Mean	SD	Min	Max
GDP % growth rate	120	.048	.034	-.044	.189
Area	140	636,370.6	847,142.5	665	2,505,810
Population	140	13,500,000	17,200,000	540,327	74,200,000
Fractionalization	114	1.0354	.53	.024	1.86
Democracy	140	11.1857	1.76	7	14
Magnitude of internal and interstate violence	140	.514	1.44	0	6
Magnitude of internal and interstate violence in neighboring states	99	3.71	3.75	0	18
Durability	140	25.51	21.115	0	80
Fuel Exports	102	57.6	38.8	0	98.03
% trade with industrialized countries	133	49.45	20	7.18	85.43
Primary enrollment	130	92.81	20.9	32	126
Secondary enrollment	121	64.4	28.4	14	109
Primary enrollment percentage growth rate	110	.01228	.0331	-.064	.1466
Secondary enrollment percentage growth rate	97	.031	.0501	-.09	.293

countries with shorter histories such as Qatar, I believe that the loss of a number of countries does not have a direct effect on the lessons that need to be learned from this regression analysis. Despite missing some central countries such as Saudi Arabia, Yemen, and Libya, the remaining countries could be considered representative of the Arab world.

Table 19 reflects important variations among Arab countries in terms of area, population, durability of the political regimes, dependence on oil exports, and school enrollment. Despite the many similarities among Arab countries, my main hypothesis is that these differences, by creating important dimensions for the material, historical, and social context of the political regime, have direct effects on economic growth by establishing the time horizon of the ruling elites and hence their interest in long term growth.

Percentage growth in GDP ranges from 0.00128 % (Saudi Arabia in 2002) to .189 (Qatar in 2004). This represents some high level of variation in this time period although, as mentioned in the previous chapter, the overall performance of Arab economies is still low by international comparison. The standard deviation is .0344. The lowest scores are those of Syria, Tunisia, UAE, Algeria, Djibouti, Egypt, and Comoros (.024).

Theoretically relevant independent variables also vary widely. Area size varies from 665 square kilometers (Bahrain) to 2,505,810 square kilometers (Sudan). The measure of heterogeneity in the Arab world shows moderate levels on this variable. The highest score (on a 3-point scale) is 1.86 (Sudan), with a standard deviation of .53.

It is important here to note that understanding the effect of fractionalization requires more than mathematical formulas to measure diversity within a country. There is

the assumption that ethnic groups are “objective categories” into which individuals can be classified, and that such classification is commonly shared and exogenous. The validity of this assumption can be called into question on several grounds. First, people may not agree on what are the relevant ethnic groups into which they are supposed to “classify” others, i.e., the boundaries of these groups may not be objectively known to all. Secondly, even under the most conventional definition of ethnic fragmentation, the latter may not be determined independently of economic and policy choices at a given point in time. Throughout history rulers have gone a long way to influence, and usually reduce, ethnic diversity using a variety of means, from the most extreme ones, ethnic cleansing, to more subtle one, creating costs for various groups to stay. Also to the extent that diversity is measured by language prohibition to use certain languages would affect in the long run measures of diversity (Alesina and La Ferrara 2004).

Also Posner (2004) argues that the political salience of a cultural cleavage depends not on the nature of the cleavage itself but on the sizes of the groups it defines and whether or not they will be useful vehicles for political competition. In other words, the presence of diversity per se does not automatically result in political fragmentation since the development of heterogeneity into a political force depends on the ability of difference to act as a source of mobilization. In addition, the salience and definition of groups can differ from one time period to another (Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg 2003). This later observation adds to the importance of a history-based analysis. A measure of polarization could be more helpful in this regression analysis. However, such data was not available for most Arab countries. Regarding democracy, while there is some variation, the scores of almost all Arab countries range

between 4 and 7, which put them in the “Not Free” category in Freedom House Reports. Only Comoros in 2006 had a score of 3 on Political Rights<sup>25</sup>.

The magnitude of internal and international violence in which each country is involved ranges from 0 to 6. The majority of countries had a score of 0 for most of the time period. Only Kuwait, Sudan, and Mauritania had a score of 6. The mean is .475 and the standard deviation is 1.36. This measure includes 6 measures of societal and interstate violence in which the state is involved, each ranging from 1 to 10, and 0 means no episodes of violence. The range for violence in neighboring states is wider, ranging from 0 to 18, with a mean of 3.71 and standard deviation equals 3.75. Egypt and Sudan had the highest scores, 16 and 18 respectively. All countries had lower scores, ranging from 0 to 12 (Oman in 2003). This variable is the summation of all societal and interstate major episodes of political violence for all bordering states. It reflects the turbulent nature of the region. Since each single MEVP category ranges from 0 (no episode) to 10 (extreme violence), a higher value of total conflict intensity generally indicates a more severe level of violence/warfare in that recipient country.

There is also a wide variation regarding regime durability, which refers to the number of years since the last regime change. This variable ranges from 0 to 80 years. The upper limit is not that high in comparison to some long-established democracies, where life spans for some of them, such as UK, Switzerland, and the United States, exceed a century and a half. This range for Arab countries reflects their recent creation,

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25. The year 2006 witnessed presidential elections in Comoros in which Ahmed Abdallah Mohamed Sambi, a moderate Islamist Sunni cleric, won. International observers described the polling as free and fair. (U.S. Department of State. Available through: <http://www.state.gov/g/drl/rls/hrrpt/2006/78727.htm>. Access Date: October 22, 2009).



border problems, and the role of international and regional powers in domestic policies. This role includes the Syrian interference in Lebanese affairs, the Cold War rivalries in Yemen until its unification in 1990, and the continued occupation of Palestinian territories by Israel.

The range for fuel as percentage of merchandise trade varies widely, from zero (Eritrea in 2001) to over 98% (Algeria in 2005). This variation reflects the continued reliance of many oil rich countries on oil exports. There is also wide variation in the percentage of trade with industrialized countries, ranging from 7.18% (Egypt in 2006) to 85.4% (Algeria in 2002).

Despite the impressive accomplishments in the Arab world regarding education enrollment as presented in Chapter 1, there still exists wide variation in primary and secondary enrollment. Some countries have achieved full enrollment in both stages. The mean for primary enrollment is 92.8, with a standard deviation of 20.9. Morocco in 2002 had the lowest primary enrollment rate at 32%, while Algeria had the highest with 122%. The mean for secondary enrollment is lower (64.4), and it has a higher standard deviation (28.4). The lowest gross enrollment rate is that of Jordan in 2002 (16%), and the highest is that of UAE (109%). Despite this variation in enrollment, female enrollment rates are comparable to male enrollment rates at both levels, and the association between both measures is close to 1.

Growth in primary enrollment ranges from -.063 to .15, and growth in secondary enrollment ranges from -.09 to .29. The standard deviations are .033 and .05 respectively. This rather low range and variance reflects the fact that most Arab countries have achieved universal enrollment.

## Regression Results<sup>26</sup>

I estimated cross section, time-series regression analyses for the time period between 2001 and 2006. I include year fixed effects and control for the initial levels of GDP per capita in the year 2000. I ran 5 models. The first model is a basic model. It controls for measures of size, fuel dependency, history, and political stability as specified above. In the second and third models, I add primary and secondary enrollment rates, and the summation of both. In the 4<sup>th</sup> and 5<sup>th</sup> models, I replaced enrollment with percentage increase in primary and secondary enrollment, and percentage increase in total enrollment in both levels. All the models are corrected for heteroscedasticity and autocorrelation. Table 20 shows the regression results of the first four models.

### General Observations from the Regression Tables

Before discussing any of these models separately, it is helpful to look at the variables with consistent results across all 5 models. The initial level of GDP had a statistically significant positive effect in 2 of the 5 models. While this effect could appear not to be substantial, it is an indicator that the convergence hypothesis is not reflected in the region. The logic of the convergence hypothesis is that richer countries will tend to grow slower, and poorer countries will tend to catch up through growing faster, until a certain limit when their growth rates also start to slow down and growth rates start to

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26. In the models below, I did not use R-squared as a measure of fit. Instead, I used the Wald Chi-2 to compare the different models and arrive at the best fit. The reason is that The R-squared is a helpful concept in OLS regression. But this model uses GLS, and the total sum of squares cannot be broken down in the same way as OLS, making the R-squared statistic less useful as a diagnostic tool for GLS regressions. Specifically, an R-squared statistic computed from GLS sums of squares need not be bounded between zero and one and does not represent the percentage of total variation in the dependent variable that is accounted for by the model. See: STATA. Frequently asked questions. Available through: <http://www.stata.com/support/faqs/stat/xtgls2.html>. Access Date: September 26, 2009.

Table 20. Modeling the Effects of GDP per Capita Percentage Growth among Arab Countries with Year Fixed Effects (2001-2006) :  
Controlling for School Enrollment

Variables	Model 1	Model 2	Model 3
Constant	.04565	1.347***	.4568***
Initial level of GDP (2000)	0.0000000163 (0.0000000327)	0.00000107*** (0.000000192)	0.000000466*** (0.000000128)
Log area	-.00554 (.0039)	-.003 (.006)	-.0145*** (.0049)
Log population	-.00334 (.0066)	-.09*** (.0189)	-.021** (.0104)
Fractionalization	.01167 (00712)	-.06*** (.0156)	-.0324*** (0124)
Democracy	-.00177 (.0031)	-.021*** (.0055)	-.00158 (.0036)
Magnitude of internal and interstate violence	.0048* (.0026)	.0077*** (.0028)	.00472* (.00277)
Magnitude of internal and interstate violence in neighboring states	.006*** (.00134)	.014*** (.0022)	.0103*** (.0023)
Durability	-.00018 (.00033)	-.00096*** (.0003)	-.0009*** (.00025)
Monarchy	.0186 (.012)	-.013 (.02)	.05*** (.01298)
British colonialism	-.005 (.007)	-.049*** (.0167)	-.0566*** (.0169)

Table 20 continued.

Variables	Model 1	Model 2	Model 3
Fuel as % of merchandise exports - log	.00867* (.0048)	.024*** (.006864)	.0277*** (.00446)
Percentage trade with industrialized countries	.000786*** (.000235)	-.0006 (.0004)	.0004 (.0003)
Primary enrollment		0.00000369 (.00045)	
Secondary enrollment		-.0041*** (.000772)	
Education (Sum primary and secondary enrollment)			-.001066*** (.000234)
	N = 51 Countries = 13 Wald Chi-2 = 226.56 Prob > chi2 = 0.0000 Years 2005 and 2006 dropped due to collinearity.	N = 45 Countries = 12 Wald Chi-2 = 159.78 Prob > chi2 = 0.0000 Years 2005 and 2006 dropped due to collinearity.	N = 45 Countries = 12 Wald Chi-2 = 1221.59 Prob > chi2 = 0.0000 Years 2005 and 2006 dropped due to collinearity.

\*Statistically significant at the .1 level \*\* Statistically significant at the .05 level \*\*\* Statistically significant at the .01 level

Table 21. Modeling the Effects of GDP per Capita Percentage Growth among Arab Countries with Year Fixed Effects (2001-2006) :  
Controlling for Percentage Growth in School Enrollment

Variables	Model 4	Model 5
Constant	.0053324	.0021
Initial Level of GDP (2000)	0.0000000744 (0.0000000679)	0.0000000926 (0.000000059)
Log Area	-.00923* (.00521)	-.00966** (.0048)
Log Population	-.0025 (.0086)	.00235 (.0079)
Fractionalization	.01234 (.0097)	.0081 (.0091)
Democracy	.0036 (.00456)	.00469 (.00417)
Magnitude of internal and interstate violence	.008** (.00346)	.0075* (.004144)
Magnitude of internal and interstate violence in Neighboring States	.007691*** (.002484)	.0075*** (.00233)
Durability	-.000086 (.0003)	-.000246 (.000336)
Monarchy	.0336** (.0171)	.038*** (.01405)
British Colonialism	-.0249* (.0145)	-.022 (.01415)

Table 21 continued.

Variables	Model 4	Model 5
Fuel as Percentage of Merchandise Exports – log	.00995 (.0064)	.00982 (.0065)
Percentage Trade with Industrialized Countries	.00086** (.00034)	.00085*** (.0003)
Percentage Growth in Primary Enrollment	-.1226 (.1889)	
Percentage Growth in Secondary Enrollment	.0891 (.067)	
Percentage Growth in Primary and Secondary Enrollment		-.106 (.123)
	N= 44 Countries = 12 Wald Chi-2 = 221.53 Prob > chi2 = 0.0000 Years 2005 and 2006 dropped due to collinearity.	N= 44 Countries = 12 Wald Chi-2 = Prob > chi2 = 0.0000 Years 2005 and 2006 dropped due to collinearity.

\*Statistically Significant at the .1 level    \*\* Statistically Significant at the .05 level    \*\*\* Statistically Significant at the .01 level

equalize across countries. This arguably could be attributed to the fact that many Arab countries have not made real changes to the structures of their production, which meant that growth did not speed up in either rich or poor countries.

Interestingly, the magnitude of internal and interstate violence in which the state is involved, and in which neighboring states are involved, always had statistically significant positive effects. This could be attributed to the control of the state over means of organized violence, and the economic boom resulting from arms sales and trade.

The sensitivity of growth to violence in neighboring states reflects the sensitivity of growth to external shocks. The positive and robust effects of these kinds of violence should also direct our attention to the beneficiaries of economic growth in Arab countries, and whether this kind of growth could be sustainable. Violence in which the state is directly involved could enhance social capital, defined as unity in the face of an external enemy. But this kind of growth can only be sustained if translated into constitutional and legal frameworks that guarantee the rights and responsibilities of the citizens. Violence in neighboring states could lead to temporary inflows of capital, as had happened with the housing boom that followed the invasion of Iraq. The question remains about whether states in the region are able to translate these capital influxes into sustainable growth and guarantee a fair distribution of the profits.

Monarchies have statistically significant higher growth in three of the models. The perception that a legitimate mechanism for power transition in monarchies is an important source of stability that aids growth and reform will be further elaborated on in the qualitative analysis in the final two chapters.

Fuel exports as percentage of merchandise trade also had statistically significant coefficients in two of the models, and the coefficient was marginally significant in a third model. This is a reflection of another characteristic of Arab economies – the lack of a productive base and reliance on external rents. This was reflected in the previous chapter when discussing the zigzag shape of Arab economic performance based on fuel prices. Since the period between 2001 and 2006 witnessed an increase in oil prices, especially after the invasion of Iraq in 2003, it makes sense to expect higher growth in countries more reliant on fuel exports. But despite this rise in oil prices, the overall performance remained low, which could be a reflection of the resource curse, where more financial flows contribute poorly to growth, and where the absence of a stable productive capacity leads to vulnerability to external shocks from fluctuations in the prices of oil.

The two main measures of size, area and population, had statistically significant negative coefficients in four of the models: area was significant in the 3<sup>rd</sup> and 5<sup>th</sup> models, and marginally significant in the 4<sup>th</sup>. Population is statistically significant in the 2<sup>nd</sup> and 3<sup>rd</sup>. In both cases, the effects are negative. This reflects a guiding premise in this study that was discussed in this chapter and will be elaborated on further in the coming three chapters: that smaller size creates vulnerabilities that act as incentives for reform, and that a smaller size makes reform easier given the reduction of the political costs of change.

Finally, an interesting conclusion for the purposes of this part of the study is the reflection in the regression results of an absent link between education and economic performance. Where this relationship exists, the coefficient is negative, as reflected in the second model, where secondary enrollment has a statistically significant negative effect



on growth. While this result could seem counterintuitive, reflecting on the nature of the economies and patterns of unemployment in Arab countries provide a logical explanations for this outcome. First, and as discussed in the previous chapter, there is an inverse relation between education and employment in Arab countries; that is, unemployment is higher among individuals with higher educational certificates (Billeh 2002; Lau, et al. 1991). This could explain the statistically significant negative coefficient of secondary enrollment in the second model, and the statistically significant negative coefficient of the summation of enrollment in primary and secondary education levels in the 3<sup>rd</sup> model.

Another explanation for this absent or negative relation between education and economic performance is related to quality. This was an issue discussed in the previous chapter and will be discussed further in the coming 3 chapters. The enrollment measures of education used here are quantitative, and they are used mainly due to the lack of qualitative measures. But the earlier discussion shows that the quality of education is what matters. Evidence reviewed in Chapter 1 shows the generally low quality of education in Arab countries as reflected in student scores on international standardized exams, and in opinions of the business community, among other sources. From this perspective, the expansion of this kind of education could be perceived as a wasted investment. I will discuss the historical, social, and political economic reasons that led to the rise and maintenance of this model of education expansion in Arab countries in the next chapter.

### Discussing the Regression Results

The first model could be described as basic in the sense that it includes the main exogenous variables highlighted in the literature reviewed above without controlling for education. This model also controls for the level of democracy as having an exogenous content given the role it plays in controlling the behavior of the elite, however limited this role is in the Arab context.

In model 1, the coefficient of the initial level of GDP per capita in 2000 has no statistically significant effect. It has a statistically significant effect in 2 of the 4 other models. Although these effects could appear insignificant, they still defy the convergence hypothesis as discussed above.

The coefficients for the two main variables capturing the effect of size, area size and population, have no significant effects in this model either. The same is true regarding the effect of democracy. But the interesting results are the marginally significant positive coefficient of the internal and interstate violence in which the state is involved, and the statistically significant positive coefficient at the .01 level of the magnitude of internal and interstate violence in neighboring countries. Each one percent increase on the measure of the magnitude of violence in which the state is involved leads to .0048 percentage point increase in GDP growth. This result is significant at the .1 level. Each one percent increase in the measure of violence in which neighboring countries are involved leads to .006 percentage point increase in GDP growth. This result is significant at the .01 level.

These results could appear counter intuitive at first sight, but these coefficients make a lot of sense in the context of the Arab world. The state in Arab countries controls societies. While it could be argued that there is no dominant ideology, the control is sometimes based on nationalist rhetoric, the importance of stability, or traditional values that rely on what Max Weber called “traditional authority” (Parsons 1964). Internal conflict could be a source of division, but it is also a way for the central authority to establish its legitimacy against dissidents using nationalist and stability-based arguments. International violence in which the state is involved is a source of building “social capital” given the presence of an external enemy. This social capital is expected to have a positive effect on economic growth. In addition, military expenditures could be a source of economic growth.

The positive effect of violence in neighboring states also tells us about the nature of economic growth in Arab countries. It is a kind of growth that does not directly affect people’s lives and expand their opportunities. In order to understand the positive effect of violence in neighboring states, we need to take a closer look at the situation after the invasion of Iraq in 2003. What happened after the invasion is that a number of wealthy individuals in the Gulf and Iraq invested heavily in housing in the Gulf and neighboring Arab states to create a safe haven given the turbulent state of affairs in the Gulf, especially given not only the domestic violence escalating into a civil war in Iraq, but also the presence of threats from Iran in addition to the continuing deterioration of the security status in the Occupied Palestinian territories and Israel. This housing boom was reinforced by Iraqi refugees who, since 2003, sought accommodation and safe

investments of their wealth in neighboring states such as Egypt, Jordan, and Syria (Middle East Youth Initiative 2009). Needless to say, the individuals who were able to leave Iraq were the wealthy. Poor Iraqis are still locked up in the highly unstable country, facing everyday threats to their lives.

Now the question is: who are the beneficiaries of this kind of boom? Are they the people at large? Or are they the select few who are directly or indirectly involved in the housing business? It is important to remember that real estate, while definitely a form of investment, is a short term kind of investment. Once the house or apartment building is completed, it stops being a productive source (unlike a factory for example), except for the infrequent renovations every now and then. These wealthy individuals from the Gulf are securing themselves by buying real estates in neighboring countries, and they might even end up residing in other countries, which adds to the under-productivity of the housing sector in Arab countries. On the other hand, the main costs are born by the average Egyptians, Jordanians, and Syrians, who end up facing souring housing prices, which meant for them that owning an apartment became a far-away dream. Given the cultural norms in the region which restricts sexual relations to marriage, which is also the door to joining the adult life and full membership in the society, the result becomes an extended waiting period for reaching adulthood, or extended “waithood” as the literature sometimes calls it (Singerman 2007b).

This complicated situation means that figures about GDP and GDP growth can be deceptive, and we need to go deeper through case studies in order to understand the

political economy of wealth and wealth creation. This adds value to the purpose of this study which looks at the political economy of education in Arab countries.

The durability of the regime, the period of time since the last regime change, does not have a statistically significant coefficient. This could be taken as refuting the arguments of many governments in the region which glorifies the benefits of political stability in a way that is used to justify the longevity of incumbent heads of states. When the coefficient for durability was statistically significant in models 2 and 3, it was negative. This reflects the effect of age, both of bureaucracies and the state at large, on growth and reform. This observation will be central to hypotheses development and examination in Chapter 5 of this work.

The variable for Monarchies, however, has a statistically significant positive coefficient in models 3, 4, and 5. As I argued earlier, a monarchic system provides the kind of political stability that extends the time horizon of the political elites across generations of rulers. It also guarantees a dimension of political stability that is not directly derived from the security apparatus; this dimension of stability is derived through legitimacy, or the public acceptance of inheritance of the top office as a means of power transition. This dimension is sometimes lacking in Arab republics, especially given the recent speculation that sons of presidents are being groomed to succeed their fathers, which clearly proved a failure after the recent uprisings in Egypt, Yemen, and Libya. In Syria, Bashar el-Assad has already succeeded his father Hafez as President in 2001 following the late President's death, but his rule is being intensely challenged by pro-

democracy uprisings that started in early 2011. It is possible that omitting the control for education in this first model underestimated the effect of monarchies in the equation.

British colonialism has a statistically significant negative effect on GDP percentage growth rate in all models except the first and last ones, and its statistical effect is marginal in the 4<sup>th</sup> model. Again, the lack of significance in the first model could be attributed to omitting the control for education. At first sight, this result could appear to contradict the results in the literature which finds that former British colonies achieved higher growth rates given the attention that British colonial authorities gave to education, institution building, and the effect of the British common law inherited by former colonies. However, there are other arguments mentioned earlier that Arab countries had already achieved important social and economic developments prior to the advent of colonialism, which led to reversing these developments. It is also important to note that the assumption that legal systems are inherited from the former occupier should not be taken for granted. Arab countries are generally moving toward an Anglo-American legal system (Kantor and Roberts 1995), but all Arab countries have legal systems based on the French Civil Law, except Bahrain, Saudi Arabia, and UAE. Bahrain and UAE are both former British colonies, but Saudi Arabia is not.

Fuel exports as percentage of merchandise exports has a statistically significant positive effect in models 2 and 3, and is marginally significant in the first model. Each one percent increase in fuel exports as percentage of merchandise exports leads to .00867 percentage point increase in GDP growth. This result regarding the effect of a natural resource dependency does not conform with the literature on the natural resource curse,

but it reflects the generally low growth rates of Arab economies and the direct effect of oil highlighted in the previous chapter.

The positive and significant coefficient of percentage trade with industrialized countries in the first model, and the last two, reflects the positive effects of trading partners, despite the fact that economic structures in Arab countries do not rely on solid foundation of industry. This could explain the relatively non-substantial effect of this variable.

In models 2-5, I control for the gross enrollment ratio in primary and secondary education, as well as percentage growth in enrollment in both levels of education. The coefficient of the percentage of trade with industrialized countries loses its significance, which could be an indicator of an omitted variable bias in the first model. Similarly, other variables gain significance. The most important of these for our theoretical purposes are area, population, and monarchy. The coefficient for population became a statistically significant negative relationship; the same is true for area in model 3. The coefficient for durability is also negative and statistically significant. These coefficients make theoretical sense.

The insignificant results for education enrollment and growth in enrollment, and the negative and significant coefficient for secondary enrollment in the second model also make theoretical sense in the context of Arab countries. The coefficient of secondary enrollment in model 2 is negative and significant. Each one percentage point increase in gross secondary enrollment leads to .0041 percentage point decrease in GDP growth.

This is not to assume that the solution is to reduce spending on education, but the conclusion is to direct more attention to quality and the need to revise how spending is directed, for example, putting more weight on accountability and impact analysis compared to quantitative measures such as building schools, and giving more opportunity to the private sector to invest in schooling while allocating more public and private resources to allow more choice and opportunities through such methods as vouchers and competitive scholarships for distinguished students.

### Addressing the Endogeneity Threat

There is a possible endogeneity between education and GDP growth. I will use the Granger causality test to deal with the reverse causality problem between these two variables. This is a test for temporal precedence; that is, it tests whether one variable precedes the other variable and whether one variable in a time series is useful in forecasting another variable. It allows us to analyze which variable precedes, leads, or “Granger causes” the other. There are a number of tests for Granger causality, but they all involve distributed lag models in one way or another (Studenmund 2006). Let  $Y$  be the score on the Education Index, and  $A$  be GDP per capita. The Granger causality test estimates the following two regression analyses.

$$Y_t = \beta_0 + \beta_1 Y_{t-1} + \dots + \beta_p Y_{t-p} + \alpha_1 A_{t-1} + \dots + \alpha_p A_{t-p}, \text{ and}$$

$$A_t = \beta_0 + \beta_1 A_{t-1} + \dots + \beta_p A_{t-p} + \alpha_1 Y_{t-1} + \dots + \alpha_p Y_{t-p}$$



The null hypotheses for the pairwise Granger causality tests are listed. The probability is listed between brackets.

Pairwise Granger causality test for the relationship between primary enrollment and GDP growth

- Primary enrollment does not Granger cause GDP growth (Probability = .2019)
- GDP growth does not Granger cause Primary enrollment (Probability = .1167)

Pairwise Granger causality test for the relationship between secondary enrollment and GDP growth

- Secondary enrollment does not Granger cause GDP growth (Probability = .525)
- GDP growth does not Granger cause Secondary enrollment (Probability = .9314)

Pairwise Granger causality test for the relationship between enrollment in primary and secondary education levels and GDP growth

- The summation of primary and secondary enrollment does not Granger cause GDP growth (Probability = .9564)
- GDP growth does not Granger cause the summation of primary and secondary enrollment (Probability = .5389)

Pairwise Granger causality test for the relationship between growth in primary enrollment and GDP growth

- Growth in primary enrollment does not Granger cause GDP growth  
(Probability = .0255 )
- GDP growth does not Granger cause growth in primary enrollment  
(Probability= .3365)

Pairwise Granger causality test for the relationship between growth in secondary enrollment and GDP growth

- Growth in secondary enrollment does not Granger cause GDP growth  
(Probability = .64)
- GDP growth does not Granger cause growth in secondary enrollment  
(Probability= .9406)

Pairwise Granger causality test for the relationship between growth in primary and secondary enrollment, and GDP growth

- Growth in primary and secondary enrollment does not Granger cause GDP growth (Probability = .6995)
- GDP growth does not Granger cause growth in primary and secondary enrollment (Probability= .784)

Based on estimating the above Granger causality tests for the relationships between education measures and GDP growth with two time lags, we can only reject the null hypothesis that growth in primary enrollment does not Granger cause GDP growth. That is, growth in primary enrollment Granger causes GDP growth. For the other pairwise Granger causality tests, the relationships were not significant in either direction.

According to the Granger test, this rules out the endogeneity threat resulting from the possibility that GDP growth is the cause of expansion in measures of enrollment<sup>27</sup>.

This result, however, should be understood within the limits of the short time period used in this analysis. A longer time period, such as 15 years, could be more suitable to examine the temporal precedence between education and economic growth. But as mentioned earlier, the dataset used in this quantitative analysis is the best possible given data limitations. As discussed earlier, the availability of data has been a factor limiting the number of cases and time periods of study in a number of the empirical investigations that attempted to address economic growth in Arab countries.

#### Conclusion: Drawing the Sketch

As I noted in the Introduction, the role this chapter performs in this work is similar to building a skeleton based on the three building blocks of this dissertation, to which I intend to add flesh through the qualitative analysis in the coming three chapters. Another metaphor is drawing a sketch and then giving it colors through qualitative investigation. It provides a snapshot of economic growth at a time of increasing oil prices and hence a higher possibility of strong economic performance. In this concluding section, I draw the sketch through discussing how the results fit within the building blocks highlighted earlier.

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27. The same relationships were found when estimating the Granger causality test with one time lag.

Model 2 is arguably the most comprehensive model. The reason why I included model 1 is due to the need to have a model that strictly builds on exogenous variables. But most exogenous growth models, as highlighted earlier, include education as a measure of the effect of technology, which is exogenous since its source in developing countries is most often the outside world. Models 4 and 5 include measures of enrollment growth. But the fact is that most Arab countries have achieved almost universal access. Those countries which still have room for expanding enrollment are the poorest countries that are struggling with limited resources and financial capability. Most Arab countries have achieved near universal access. Therefore, gross enrollment is a better measure of the effect of education on economic growth. Given the positive coefficient of initial GDP and fuel exports as percentage of merchandise trade, the lack of resources and limited financial capacity that characterize these countries are more influential and are arguably more significant determinants of growth.

Moving to the three building blocks of this dissertation, I highlight the expected influence of these groups of variables for further analyses in the coming chapters.

### History

It is fair enough to argue that history matters for the country's ability to grow and reform. The passage of a longer period of time since the most recent regime change has a negative effect on growth. This will be reflected in the case of Qatar where the argument is that education reform was driven, at least in part, by the Emir's interest in expanding his basis of support among the younger generations after reaching power through a palace

coup that ousted his father. Using semantics from the literature on political stability, it is arguable that a longer stay in power reduces the incentive for reform and diverts resources toward regime maintenance through the security establishment.

Another measure of history includes the effect of British colonialism. In the coming chapter, I will give special attention to the effect of the historical development of education systems in Arab countries, focusing in particular on the role of colonialism and the developmental tracks chosen by post-colonial regimes.

### Exogenous Variables

All Arab economies are rentier economies, whether directly through reliance on oil rents or indirectly through labor remittances and inter-Arab aid and investments. This was reflected in Chapter 1, which showed the large sensitivity of Arab economies to fluctuations in oil prices. Resources matter for the ability of reform. The effects of the oil economy on the development of education systems in Arab countries, and influencing the approaches of parents, students, and the state in the process, will be discussed in the following chapter.

This oil dependency and the central role of rents in Arab economies is the main reason for choosing the education quality assurance conceptual model developed by the World Bank in Chapters 4 and 5, an attempt to reduce the influence of financial resources in measuring education quality assurance systems in Egypt and Qatar. With its focus on administrative efficiency, one could argue that the ability to achieve success according to this model requires political will and minimum opposition to reform from the

bureaucratic, political, and business interests involved in the education system. This model, therefore, provides some sort of control for the effect of financial resources.

Another very important exogenous variable, which will be the focus of the analysis in Chapters 3 and 4, is the effect of size. Small is better, as reflected in the coefficients of population and area. The theoretical arguments highlighted above focus on the effects of size in increasing vulnerability, leading to a drive toward openness to trade and economic diversification, which in turn leads to higher growth. Another effect of size comes from the groups literature, which argues that smaller societies tend to be less polarized, hence change becomes more attainable. This will be the main focus of the analysis of education reform and education quality assurance systems in Egypt and Qatar.

#### Political Stability

Exogenous measures of political instability, domestic and international violence, had a positive effect on growth. While this sounds counterintuitive. It is explainable in the Arab context through focusing on the role of violence in acting as a unifying force domestically and a way of enhancing the regime's legitimacy. In other words, it is a way of building social capital. This argument could be true for the time period between 2001 and 2006, but certainly not after the pro-democracy uprisings in 2011, which erupted from genuine desires for change and reform, although their directions are not yet clear. As for the robust positive effect of violence in which neighboring states are involved, this could be attributed to the flight of capital to safer havens in the neighboring Arab states, as happened after the invasion of Iraq. The question here is: What is the extent of positive

spillovers on the society at large achieved through this capital inflow given that a good deal of it was directed to the field of constructions, arguably leading to some sort of a constructions bubble?

But it is also true that monarchies are achieving higher economic growth. This could be attributed to their higher political stability given the legitimacy of mechanisms for power transition. This is also reflected in the pro-democracy uprisings sweeping across the Arab world. While Bahrain, a monarchy, witnessed its own uprisings, this could be attributed to the special case of this country, which has a majority Shiite population. Similar threats are arguably facing Saudi Arabia, and even Qatar. But these threats are dwarfed in comparison to the serious threats to regime survival which faced Egypt and Tunisia, leading to the ouster of long-serving presidents, and the very serious challenges facing the regimes in Libya, Syria, and Yemen, all of which are technically republican regimes, in the sense that power transition is not based on a hereditary rule, although this was the plan of the incumbent and now-former presidents in all of these countries – a scenario that has been successfully achieved only in Syria.

#### A Final Note on the Limitation of the Quantitative Analysis

It is important to conclude this chapter with a brief discussion of the limits of its results. This is important in order to understand the role this quantitative study plays in the dissertation. It is important to note first that the time period of this study is relatively short, only 6 years. These years are years of economic revival, and preceding a period of global financial trouble that started looming heavily in 2008. This period of revival could

help us understand which regimes were able to pick up on the opportunities available for growth.

I understand that a study of the effects of exogenous variables on growth could be more informative with a larger number of countries. However, and as I previously argued in a number of places in this work, there is a trade-off between increasing the number of countries included and the inability to control for important intervening variables as a result of including a disparate group of countries. I also understand that a number of variables included, such as size and population, do not vary much over the years for each country. However, I believe that the limited number of years included and the variation in other theoretically relevant variables, such as education, oil production, and education, help us gain a broad picture of the influences on the political regimes in the region that directs attention to growth and sets their time horizon and interest in future growth.

The main purpose of this analysis is to highlight important variables that need further attention and more detailed analysis in the coming chapters. I also hope to contribute to the large body of literature on the role of exogenous variables in economic growth through this part of my dissertation. Finally, it is important to note one final limitation that makes a qualitative study especially important. International organizations, such as the World Bank, usually depend on governments for compiling their data. As a result, some of the data I have here are at best questionable given the non-democratic nature of the governments in the region and the political interference with data production and dissemination. This quantitative analysis will also show how figures on GDP growth in some Arab countries should be taken with caution. Growth in GDP in the



region is affected by outside effects that might have nothing to do with economic activity. For example, a regional war could lead to an increase in the number of foreigners buying real estate in neighboring Arab countries. The result could be raising real estate prices for locals, leading to an overall deterioration in their standards of living.

## CHAPTER 4

### A FRAMEWORK FOR UNDERSTANDING EDUCATIONAL OUTCOMES IN ARAB COUNTRIES

#### Introduction

This chapter is a reading of the literature addressing the relationship between education and economic performance in the Arab world. It aims at answering one main question: How did the Arab region reach a situation where education systems do not contribute positively to growth? In other words, this chapter explains the observations highlighted in the previous two chapters regarding the nature and outcomes of education systems in Arab countries as a precursor for the analysis of innovation and lack of innovation in education systems in two Arab countries: Qatar and Egypt.

As many people would probably do when approaching a broad literature, I approach this reading of the literature through a framework which stresses the incentives facing the main participants of the education system: the state, parents/students, and schools/teachers. In order to address incentive structures, I adjust the 3 groups of variables highlighted in Chapter 2. I focus on history, the role of oil, and political stability considerations of the political regime in power.

It is important to note at this point that this reading is not a historical account of how education systems developed in the Arab world. There are wide variations of these accounts, and different studies stress different critical junctures regarding these

developments. Instead, this is a conscious effort to bring research from different perspectives and research institutions. I review studies from academic sources, international organizations, and think tanks in both Arabic and English with the purpose of highlighting the factors that contributed to the creation and maintenance of memorization-based education systems in Arab countries that contribute little, if at all, to economic growth.

The observation that Arab educational systems are based on rote memorization, and lack attention to building skills and entrepreneurship, has been highlighted in a number of studies. For example, Billeh (2002) points out a number of characteristics of education and employment outcomes in the region as found in the literature. Relevant among these characteristics to the purposes of this study are the observations that the quality of education is low, that education and training are traditional and have lost touch with the knowledge and skill requirements of the labor market, and that education systems have encouraged rote memorization and recalling of facts at the cost of developing critical thinking and problem solving. In his evaluation of the educational system in Egypt, Kozma (2004) argues that assessments, curriculum content, and teaching methods all focus on memorization. Within this context, even the use of information and communication technology (ICT) does not help solve what seems to be a mentality problem that focuses on facts instead of developing skills. This observation is valid for math and science classes, although focus on memorization is stronger in literature, history, and religion classes. Kozma observed ICT was used as a delivery device rather than as a tool for science creation and use. For example, he observed in one

science class that the teacher used PowerPoint presentation and students were clustered in groups around computers. The teacher asked questions that were still focused on recalling information such as “what are the parts of the plant cell?”

In brief, the story I tell in this chapter through reading the literature organized by the incentives of the main actors involved states that education has been an important tool of the state for nation building and control. Throughout history, secular education has been compiled over layers of religious education, leading to the development of centralized control and examinations to filter the large numbers of students joining the system. Quantitative expansion created a further need for this centralized control to guarantee equality even at the cost of quality. This quantitative expansion was part of decisions made at the state level, especially after independence, and was linked to a number of models of state-led growth, mainly import-substituting industrialization and resource-based growth. Both models were accompanied by the expansion of the role of the state in all aspects of life. This expansion has had direct effects on parents/student and schools/teachers, who became heavily invested in the system which guarantees an orderly transition through education levels and creates a huge market for private tutoring. At the regime level, interest in political control, as well as the accompanying interests in maintaining bureaucratic control and business interests in maintaining a centralized educational system which guarantees profits through managing private lessons and printing outside support books, guarantees the maintenance of this system.

### Methodology

As noted above, this chapter is based on a reading of the literature. I do not present new evidence or empirical investigation. But I believe that the very nature of this reading, based on a framework that organizes previous in a way that directs attention toward how the system was shaped through focusing on how the interests of parents/students, school/teachers, and the state were shaped contributes to our understanding of education systems in Arab countries and how we can approach reform of these systems. Based on library and internet resources, I review articles in peer-reviewed journals, books, research by think tanks and international organizations, and Masters and PhD dissertations in both Arabic and English. The purpose is to put this research together into an organizational framework that helps us understand how interests of the participants in education have been shaped through focusing on the building blocks of this work: history, exogenous variables (I focus on oil in this chapter), and political stability considerations.

### Reading the Literature: A Framework

Figure 9 represents my framework for discussing the creation and maintenance of educational systems based on memorization in Arab countries. This figure organizes the flow of the logic of the story that led to the creation and maintenance of education systems that focus on rote memorization and hence do not have positive effects on creating sustainable economic growth. My purpose is to create guidelines that future research can use for more detailed analyses of individual cases.

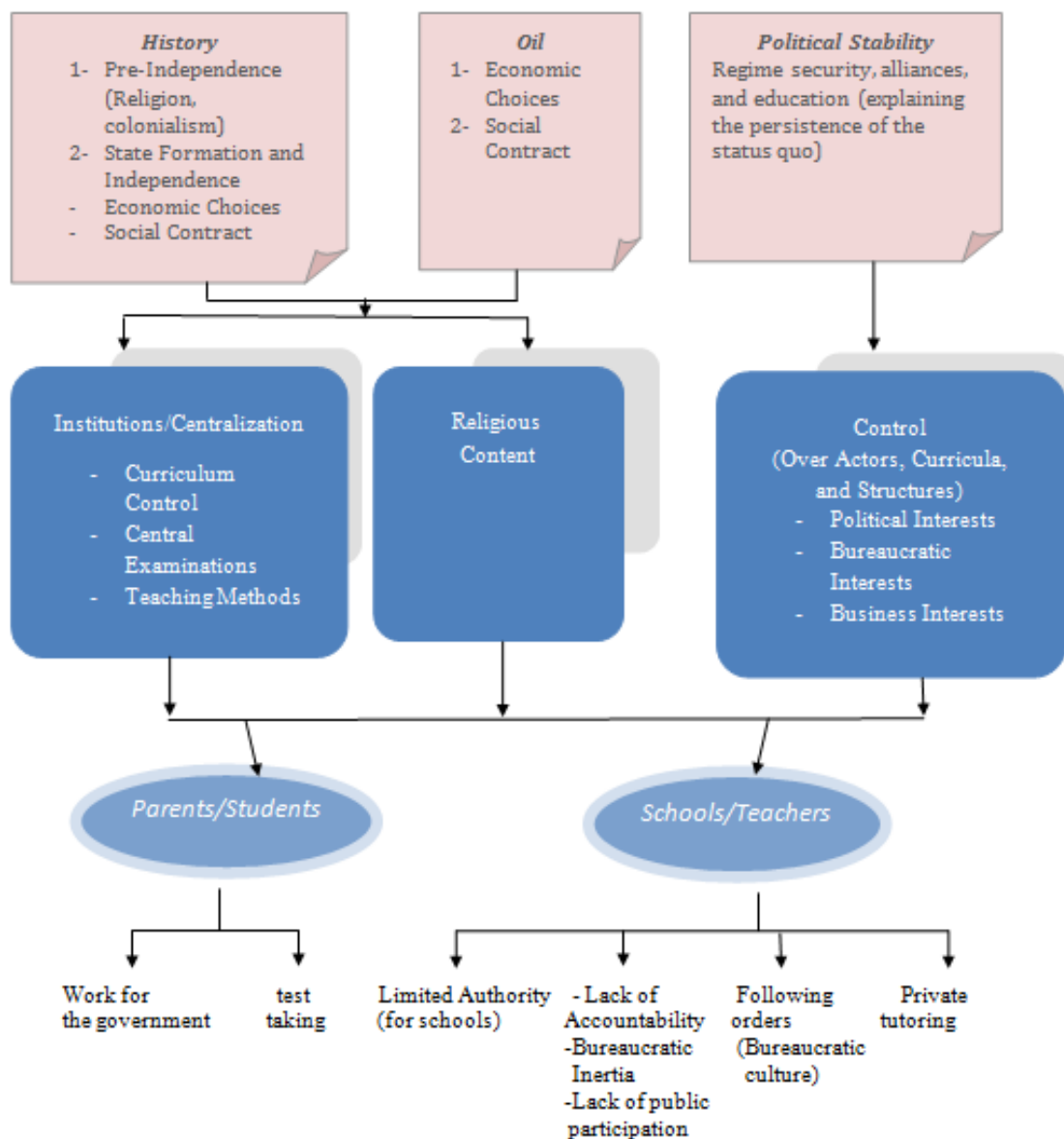


Figure 9. Incentive structures contributing to educational outcomes in Arab countries

### The Story in Brief

I start with history, to examine the institutional heritage of education and its goals, which were invariably linked to the state apparatus and, during the occupation stage, to the goals of the occupier. The second important historical stage is that associated with

independence. The economic and social choices of this period arguably set formal and informal institutions that continue to influence the present. The dominant role of the state in the social, economic, and political spheres in Arab countries is an important explanation for many of the phenomena we see in the Arab world, from the persistence of autocratic rule to lack of market-relevant skills among graduates. This role developed after independence both for the purpose of leading social and economic development and for political and social control. Oil played an important role in maintaining somewhat obsolete social and economic structures given the independence it gave to the state from local and global pressures, and its spillover effects to non-oil rich countries through such channels as labor remittances and foreign aid and investment.

The dominant role of the state could be perceived in terms of: centralized institutions and the religious content of curricula. Centralized institutions had their foundations in colonial times. In the post-colonial era, centralized curricula were critical for state building. Centralized examination systems seemed important to deal with the large size that resulted from quantitative expansion. The religious content of curricula is based on a foundation of *kuttab*—religious schools that played the role of primary schools for the majority of Arab populations. The compilation of religious and secular classes during the colonial period in a number of countries such as Egypt led to an overwhelming number of subjects and encouraged centralized examinations and rote memorization.

Explaining the sustainability of this system requires reference to regime security and stability. Two main aspects of regime considerations in education reform seem of

special relevance: interest in maintaining control over curricula and the role of Islamic groups. As a result of centralization, other interests also developed, favoring the maintenance of the status quo. These include bureaucratic and business interests. The goal of central bureaucracies is expected to be the protection of their control. They are also expected to be hesitant to allow greater roles for other actors below the central level such as headmasters and teachers for fear that they lack the necessary skills. With the large volume of education sectors in many Arab countries and their centralized structures, a number of businesses are expected to develop high stakes in the status quo. These include businesses responsible for building and maintaining schools, printing schoolbooks, printing outside support books, etc.

These factors led to the domination of the state. They established centralized educational institutions and large and irrelevant curricula which sent signals to parents/students and schools/teachers that shaped their approach to education and made the system self-sustaining not only through political, bureaucratic, and business interests, but also through increasing the opportunity costs for change. Parents and students became used to centralized exams and memorization, and were ready to pay the costs in terms of private tutoring to pass high stakes national exams. Any change disrupting this system could cost them the opportunity for joining higher education levels and finding a place in the formal economy. The disruption of a generations-old system is hence arguably perceived as risky at best.

On the other hand, private tutoring became a huge source of income for teachers that they are ready to defend. Evidence that will be cited latter found that teachers



intentionally lower the quality of in-class teaching to encourage private tutoring. But teachers also still complain from the lack of discretion, while the lack of accountability and bureaucratic culture encourage following orders on the part of school administrations.

Putting it differently, the factors contributing to rote memorization as a characteristic of educational systems in Arab countries could be summarized in the following points:

1. The role of the state: historically and to a great extent until the present time, the state is the main director of the educational system and absorber of its outcomes – through its continued role as a major employer.
2. Religious education: was central in the expansion of literacy in a number of Arab countries. It focused on memorization and adding layers to secular education, reducing the focus on skills development and encouraging memorization to pass exams.
3. Oil resources maintained obsolete economic and political institutions, including in the education sector.
4. Poor resources: which rendered meaningless the principle of creating educational systems that allow access for all. The will to focus on science and math were undermined by the inability to provide the necessary resources in the classroom.
5. Political considerations related to regime stability and social alliances helped maintain the system, especially the religious content of education.

6. Centralization created bureaucratic and business interests that sustained the status quo. Central bureaucracies want to maintain their control and are doubtful of the skills and abilities of sub-national levels. A number of businesses have interests in maintaining the flow of income from printing schoolbooks, receiving government contracts to build and renovate school buildings, etc.
7. The system became self-reinforcing through sending signals to parents, students, and teachers regarding the purpose and value of education. Government employment and passing examinations are the main interests of parents and students, which found favorable recipients in the teachers' interest in maintaining the flow of income from private tutoring. Established centralized institutions, examinations, and curricula represent the knot that needs to be untied in order to change the signals faced by these groups.
8. Reform efforts to guarantee appropriate incentive and accountability systems in the field of education have been underway in Arab countries. Many of these efforts were top down and/or driven mainly by foreign donors (Chapman and Miric 2009). These reforms need attention to enabling the main actors, such as parents, school administrators, and community leaders, to have more say in school affairs. Hence, they need more fundamental change in the principles of education management that have been in place since the time of independence.

### Distinguishing Arab Countries

Throughout this story-telling, I make frequent distinctions between two groups of Arab countries. The first group of countries are what Richards and Waterbury (2008) call the socialist republics. These countries followed some version of Arab socialism based on Import Substitution Industrialization (ISI) and public enterprises. The Egyptian developmental track during the 1950s and 1960s was a role model for the socialist republics. The second group of countries are the rentier states. The developmental tracks of these countries were primarily linked to their oil wealth. The Gulf Cooperation Council countries are the ideal types of this group.

However, this distinction is not an easy task. First, all Arab countries are, to an extent, rentier economies. The reason is that all Arab countries, whether oil-rich or not, continue to depend on sources of income that do not result from real productive activities. The prototypical rentier states are the oil-dependent economies of the GCC, in addition to Libya and, to a lesser extent, Algeria. In these countries, the bulk of GDP as well as government revenue is generated by exports of petroleum products. The second type is the semi-rentier economies, which cover most of the remaining Arab states of the Levant and North Africa. Although this group seems more balanced since they do not completely rely on a single natural resource, they are still heavily reliant on rents, even though they are of different kinds than the direct oil rents of the rentier countries. Their rents include labor remittances from expatriate labor, with a substantial number of these workers in rentier countries, along with foreign aid and bilateral or multilateral loans. These

economies also suffer from low productivity. In both cases, the state is dominant and the economies are underproductive and highly vulnerable to external shocks (Alissa 2007).

The second reason for the difficulty of distinguishing according to the developmental path is that some countries will not easily fit under either the socialist/semi-rentier or rentier models. With the exception of Algeria which was directly influenced by the Egyptian Arab socialist model, Arab Maghreb countries had passed through unique historical experiences that distinguish them from other countries in the region. Their administrative systems are influenced by the French model given the heritage of direct French rule and they are arguably more European oriented than other Arab countries (Ayubi 1995). Other countries do not fit easily into either group. For example, the Jordanian economy has been heavily rentier in the sense of depending on remittances, exports from phosphates, and foreign aid. But Jordan is not oil rich and is not as heavily reliant on one source of income as GCC countries. Jordan also can hardly be defined as a “socialist republic” to use the terminology of Richards and Waterbury (2008), since it is a monarchy that shared little of the Arab socialist project including a lesser extent of state expansion compared to countries like Egypt, Iraq, and Syria. Iraq is an oil-rich country whose track of development since the early 1960s was clearly influenced by the socialist model in terms of domestic economic and social policies as well as regional and international politics. Despite these difficulties, it could be possible to highlight a number of characteristics of socialist and rentier countries that create some sort of an ideal type for each. Countries can then be distinguished according to which end

of the continuum they are closer to. The main tenets of an ideal type of socialist republics or semi-rentier states in the Arab world could be highlighted in the following points:

1. The ideal type of these countries is Egypt which, under President Nasser, spearheaded the Arab socialist project.
2. Most socialist republics entertained some sort of an ideological frame of reference based on ideas of social equality, independence from foreign influence, and a central role of the state for achieving these goals.
3. A number of countries within this category won their independence after a period of struggle with their occupiers. This led to anti-capitalist and socialist policies as well as an authoritarian, or populist, inclination directly after independence.
4. Most of these countries adopted a model of Import Substitution Industrialization based on a central role for the state.
5. Some of these countries were aided in the expansion of their state apparatuses with oil and other natural resource revenues, such as Libya and Algeria.

The other model is the rentier state model. Countries in this category have some or all of these characteristics:

1. The ideal type of these countries is the GCC countries.
2. These countries were aided by foreign powers, in the case of the GCC this was Britain, in guaranteeing the autonomy of ruling families before independence and in facilitating the exploration and production of oil.

3. These countries gained their independence at a later stage compared to the Arab socialist countries.
4. These countries adopted a conscious policy that aimed at economic diversification, but the influences of the Dutch disease have led to limited diversification and the importation of large foreign labor to implement the developmental projects they created using their oil money.
5. As with the socialist countries, the role of the state expanded rapidly. This was fueled by oil money and aimed, at least in part, at distributing the oil wealth through lucrative government jobs.

In the remaining part of this chapter, I will describe the flow chart I presented earlier and conclude with a discussion of how rote memorization became an ingredient of a self-sustaining model.

### History

#### Pre-Independence: Religion and Colonialism

Suliman (2000) notes that the history of Arab education could be divided into four stages: under the rule of the Ottoman Empire, Western colonial powers, under national governments, and under Pan-Arab ideals. The Ottoman Empire had no significant impact on education in the Arab world, which was insulated from scientific and technological advances elsewhere (Economic and Social Commission for Western Asia 2005).

However, threats of European expansion into northern Africa and southwestern and central Asia led to educational initiatives to strengthen the Ottoman rule at home. These

initiatives included sending students to study in Europe, a trend that was also taking place during the same time under the rule of Muhammed Ali in Egypt, when the country became an autonomous domain within the Empire. Most of these students were originally educated in religious schools. School building also expanded, especially during the reign of the Ottoman Sultan Abdulhamid II. One driving force for this expansion was the concern about the spread of foreign and missionary schools supported by religious orders or by foreign governments as well as schools established by minority communities such as Belgians, Armenians, and Jews. The goals of education at the time were mainly moral, political, and religious, but not nationalist (Starrett and Doumato 2007). This stage ended with the end of the Ottoman Empire and the beginning of the Western penetration of the region starting the 18<sup>th</sup> century.

The advent of Western colonialism had a number of effects, sometimes contradictory, on Arab countries. According to Khalidi (2004), Western accent into the Arabian Gulf region reversed a number of positive trends regarding women's rights and social and political mobilization in Iraq. This could be attributed to the dependence of foreign powers on traditional sources of control, mainly tribal leaders and structures. However, in other countries such as Egypt, the French campaign led by Napoleon Bonaparte, which lasted between 1798 and 1801, was eye-opening as to the backwardness of the country that resulted from millennia under the rule of the Mamluks<sup>28</sup>

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28. The *Mamluks* were slave warriors used as a source of military recruitment between the 9th and 13th centuries in the Muslim world, a practice that has roots in ancient Greece and Rome. Their position in the military gained them high social status, to the extent that they became the *de facto* rulers of Egypt

and Ottomans. Western colonial powers built irregularly on the educational foundations established during the Ottomans and under the rule of Muhammed Ali. And they resisted the expansion of higher education beyond the needs of staffing the national administration for fear of raising discontent against their rule. By the time of independence around the mid-20<sup>th</sup> century, modern style schools rose in importance while religious education was eclipsed, although it remained in many countries as a parallel system of training (Starrett and Doumato 2007).

Reviewing education development in Egypt prior to Western colonialism can illuminate the foundations of education systems in the Arab world, especially in countries that could be called socialist republics, according to Richards and Waterbury (2008), or semi-republican countries, according to Alissa (2007). This is the case for a number of reasons. First, Egypt has a long heritage of educational institutions prior to the advent of Western colonialism which stretches back to millennia. A more manageable account though could trace back educational foundations to the 13<sup>th</sup> century during the rule of the Mamluks. In addition to this long history, Egypt championed the Arab Socialist model during the 1950s and 1960s under the leadership of President Gamal Abdel-Nasser. This model had widespread effects on a number of Arab countries.

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during the rule of the Ayyubids. They gained power in a bloodless military coup by the elite force of the last Ayyubid ruler, al-Salih Ayyub, known as the *Bahriyya*, after his death during the Frankish invasion of Damietta in 1249. They established the *Mamluk* Sultanate in Cairo in 1250, followed ten years later by their expansion into Syria when the Egyptian army stopped the Mongol advance at 'Ayn Jalut in 1260. The rule of the *Mamluks* ended in 1516 when their Empire fell in the hands of the Ottomans. For more information on militarization and the forms of subsequent state creation in the late Islamic period, see Walker (1999).



The Egyptian Case: Education Development,  
Politics, and Foreign Intervention

During the Mamluk rule in the 13<sup>th</sup> and 14<sup>th</sup> centuries, a number of educational institutions were responsible for military, religious, and civil education. The first kind of education focused on the Mamluks, or the recently bought slave warriors, who were usually bought at an early age. The aim was to create an elite class distinct from the rest of the population. The young Mamluk was put under the supervision of a master (known as *Tawwash*) responsible for teaching him the Turkish and Arabic languages (with more focus on the former), Qu'ran, and shari'a law. On completion of this stage, the Mamluk would go on for military training (Ashmawy 2006).

Religious institutions played an important role in educating broad segments of the society. *Kuttab*s were the prevalent forms of schooling received by young Egyptians since the beginning of the Muslim rule in 642. These institutions facilitated the spread of Islam and the Arabic language among Egyptians (F. H. Sayed 2006). They played the role of primary schools through teaching Qu'ran, and the basics of reading, writing, and mathematics. They also performed the role of entry points to higher levels of education in Al-Azhar, religious schools, or mosques. They were, however, subject to minimum state supervision, focusing only on the financial aspects. Mosques included circles for teaching Arabic grammar, poetry, literature, medicine, and other natural sciences (Ashmawy 2006). Al-Azhar was the first modern university in the world, created in 972 in Cairo,

which was itself created when the Fatimids gained power in Egypt in 969<sup>29</sup>. Al-Azhar remains a major center of Islamic learning until the present day. It has also been engaged in secular education; that is, non-religious education of modern sciences and philosophy (F. H. Sayed 2006).

On the other hand, there were vocational institutions for teaching particular crafts. Graduation from these institutions was a prerequisite for admission by the syndicates of each trade, which put the conditions and regulations for practicing crafts. Schools had developed at an earlier stage as a result of Saladin's<sup>30</sup> interest in education reform to spread the Sunni Islamic tradition. These schools were equipped with full-time teachers and dormitories for students. Their status, however, deteriorated after Egypt fell under the Mamluks and, especially, under Ottoman rule which started in 1517 (Ashmawy 2006).

As previously mentioned, the French campaign on Egypt directed attention to the backward status the country had reached under centuries of Mamluk and Ottoman rule. This campaign brought a number of French scientists to Egypt, and introduced modern technology such as printing. This campaign also brought into light the role of religious institutions in leading opposition. Napoleon paid special attention to getting close to Al-Azhar scholars and tried to use them for calming down opposition. But Al-Azhar

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29. The *Fatimids* are a *Shi'a* dynasty that ruled Egypt between 969 and 1171. For more on the *Fatimid* conquest of Egypt and its motives, see: Lev (1988).

30. Saladin was the founder of the Ayyubid Empire in Egypt in 1171, followed by Syria and other parts of the Arab world. He is widely remembered in the Arab world for his wars against the Crusaders and re-establishing Muslim rule over Jerusalem. He was depicted in Ridley Scott's 2005 movie "Kingdom of Heaven."

institution ended up playing a central role in leading the opposition against the French. (F. H. Sayed 2006).

This interaction only intensified under the rule of Muhammed Ali, the founder of modern Egypt who first came as an Albanian officer in the Ottoman army that intervened against the French campaign, and assumed power after a brief contestation with existing groups and individuals following the French withdrawal. One relevant point to note about Muhammed Ali's approach to education is the presence of a clear perception and plan for the role of education in economic growth. This plan was state-centered and based on a strong and centralized administrative apparatus and a modern army. It aimed for Egypt to become a modern Western-style power with strong army and industrial base. He found that the prevalent system of education present at that time, which had a central religious component, did not prepare Egyptians for modern administrative systems, the modern army, and the structural and agricultural projects that were underway (F. H. Sayed 2006).

The purpose of the education system was to prepare individuals to work in the administrative apparatus and the army. The new educational institutions and structures, modeled on the European style, did not aim at empowering the Egyptian people. The only aim was to produce skilled labor for the economy and the army. This is clearly reflected in a message that Muhammed Ali sent to his son and heir, Ibrahim, in which he said: "What Europe is suffering from is the result of generalizing education among all levels of society ... they have no choice of avoiding what happened. So if this is an example in front of us, our duty is simply to teach them how to read and write to a certain limit in order to encourage satisfactory work and not to spread education beyond that point" (F.

H. Sayed 2006). Attention to the functional role of education for state power and the need to monitor it closely so as not to turn into a catalyst for political opposition is clear from the fact that schools were under the control of the equivalent to present day Ministry of Defense (Ashmawy 2006). This continued until 1838, when the Ministry of Education's 'Diwan' (Department) of Schools was established (F. H. Sayed 2006).

Putting the political aspects of education aside, Muhammed Ali's plan for education in Egypt established the foundations of a modern state, only to be weakened during his successors and consciously manipulated during the British occupation for the purpose of avoiding the development of anti-occupation sentiments within the society.

Educational advances crumbled as a result of international politics. Muhammed Ali's ambitions raised the suspicions of western powers. Britain, Russia, Austria, and Prussia joined forces to support the Ottoman Empire<sup>31</sup> against Muhammed Ali's territorial expansion (Salem 2005). The defeat of the Egyptian army put an effective end to Muhammed Ali's renaissance project, which was clearly too much centered around the military. With the military defeat, the educational system started to collapse, witnessing a steep decline in the number of schools, students, and students sent to study abroad. This decline continued during his successors. This period also witnessed a higher focus on foreign education, especially during the rule of Sa'eed Pasha. The rule of Khdev Ismael (1863-1879) witnessed a revival of state interest in education, which also witnessed a

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31. Although Muhammed Ali was an officer in the Ottoman military, his ambitions and territorial expansion as ruler of Egypt brought him into direct political and military confrontation with the Ottoman Empire that made him very close to unseating the Ottoman Caliph.

rising attention to separate education from its dependence on the military. However, this revival was soon reversed under economic hardships and foreign debt, which opened the door for the British occupation in 1882 (Ashmawy 2006).

### Concluding Remarks on Pre-Colonial Education

Before moving on to educational policies and outcomes of the colonial era, a number of relevant observations could be highlighted regarding the earlier period discussed above, which witnessed Western interventions during the 19<sup>th</sup> and 20<sup>th</sup> centuries. First, it could be noted that religion played an important role in education through the institutions of *kuttabs* and *madrassas* which represented important opportunities for the masses to receive basic education possibly leading to further steps along the education ladder. Religion also played a role in political mobilization, as was witnessed during the French campaign on Egypt, where scholars of Al-Azhar institution played an important role in mobilizing against the French.

Education played important social and political roles. As with other parts of the world, education was perceived as an important tool for establishing the power of the state. This was the case, for example, of Saladin's interest in education in Egypt in order to spread the Sunni tradition and as a tool to counter the Shiite influences that had spread during the Fatmide rule. The possible role of education as a door for political mobilization put it under state control, as during the rule of Muhammed Ali in Egypt, where the role of education as a tool of economic and military modernization was planned in a way that was intended not to contribute to political mobilization.

Another observation which is clear from the discussion of education in Egypt is the close link between education and the needs of the state. The expansion of the role of the state during the rule of Mohamed Ali and the presence of a state-led modernization plan meant that the primary, even sole, purpose of the education system was to serve the administrative and military needs of the state. The link between education and the needs of the state was so strong during the rule of Muhammed Ali in Egypt to the extent that the education system crumbled after Egypt's military defeat. This brings into focus the role of education in serving the state and its economic needs during the period of colonialism.

#### Education during Colonialism

Colonial policies during the period of Western colonialism in the region shared a number of similarities with policies during and around the Ottoman period. The goals of the colonial authority regarding education policy centered on containing the development of nationalist sentiments and developing an elite class strongly tied to the interests of the colonial powers. The economic goals of colonial powers aimed at developing skills for staffing bureaucracies that would help extract resources from the colonized countries. However, even in this field, colonial policies since the 19<sup>th</sup> century did not contribute much to the development of local talent since they depended on importing skilled labor force from back home. Colonial authorities imported their own engineers, technicians, doctors, lawyers, accountants, senior civil servants, business managers, and even the bulk of school teachers (El-Ghonemy 1998).

Similar to Muhammed Ali's perception of the social role of education, colonial authorities were specifically conscious not to facilitate the development of anti-colonial sentiments through spreading education. Even religious educational institutions, such as the *kuttab*, which helped spread literacy especially in the countryside, did not escape colonial intervention to contain religious-based resistance to their rule. The frequent military conflicts with the colonial administration due to tribal uprisings and independence movements also destroyed many schools and dislocated the pupils who had to move with their parents (El-Ghonemy 1998).

We find interesting manifestations regarding the political and economic roles of education in colonial policy. British colonial authorities in Egypt were quite aware that the main resistance to their rule comes from educated classes. One primary step was to end free education, claiming that this was needed to enhance quality. Colonial policy focused on using education as a tool for political, economic, and social control. This was manifested in the following ways (Ashmawy 2006):

1. Politically, the Egyptian government had to appoint a Counselor for education with wide authorities. This Counselor was de facto appointed by the British governor in Egypt. The authorities of this Counselor far surpassed those of the Minister of Education. The English language became the language of education, while the Arabic language was relegated to a secondary position.
2. On the economic front, there was little attention to linking education with the needs of the economy. For example, agricultural education did not pay attention to agricultural techniques and training farmers. Its main purpose was

to produce bureaucrats for the agricultural sector. The same was the case of vocational training, whose purpose was to produce workers in places like small workshops where foreigners would refuse to work. But there was little attention paid to education as a tool for industrial development. The only exception was the link between industrial education and railroads, which was very important for the British given their interest in facilitating the movement of cotton for exportation.

3. On the social level, education was used as a tool of social discrimination. The high tuition and reducing education spending deprived poorer classes from receiving educational opportunities.

The majority of Egyptian males were educated in the 9,647 *kuttab*s or one of the 4,664 elementary schools established by the state at different times to provide free education for the poor. Although at the beginning of British occupation in 1882, reduced educational spending was, technically, a response to the fiscal crisis resulting from wars by Muhammed Ali and Ismael Pasha, and the increased spending of the latter, it continued as the official policy of the colonial period. Prior to British occupation, education in *kuttab*s, technical modern schools, and elementary schools was free for the masses. But by 1907, free education was entirely abolished. Those educated in “modern” primary or elementary schools had to be at least middle class. Poor Egyptians went to the *kuttab*s which were funded at various levels by the endowment of religious institutions such as mosques (Cochran 2008).



The outcome of this system at the time when Egypt gained its formal independence in 1923 was a mosaic composite of 500 years of Islamic and 2000 years of Coptic primary education, 300 years of foreign missionary and language schools, more than 40 years of British influence, and variety of state institutions neither uniform nor adequate for the country's needs. Elementary schools represented an attempt by the government to expand education for the poor. They were administered by both the Ministry of Education and provincial councils, and were limited in facilities, curriculum, and instruction, and received way less funding per student compared to primary schools. Instruction in primary schools, on the other hand, was clearly superior to instruction in elementary schools and was fee-based until 1943. Private schools also charged tuition, but they could not charge more than public schools or otherwise they would go out of business. They were denied support unless they followed the governmental curriculum. Because a primary school graduate had to pass English and French language sections on the entrance exam to secondary schools, those who had gone to compulsory elementary schools and *kuttab*s had to pay for outside tutoring (Cochran 2008).

Secondary education reflected confusion in the Egyptian culture as to the place and role of religious versus secular education. Uncertainty existed as to which subjects should be emphasized at schools. Most Egyptians, including some leaders of the independence movement, have been educated in *kuttab*s. But the new secular leaders, including lawyers, doctors, teachers, journalists, government officials, and engineers, had different interests and modes of thinking. These differences were reflected in secondary school curriculum which went through changes by the change in cabinet. The curriculum

ended up as an ossification of modern secular subjects such as math and science over the already extensive religious instruction and vice versa. That is, both the past and the present had to be accounted for not through creating a new formula but rather through adding everything up on top of each other. Memorization and formal exams were the means to cover this vast material in the short class periods allotted to each subject (Cochran 2008).

As a result, reform of secondary education in Egypt failed to address main concerns related to the sector's administrative and financial structures. The Egyptian Minister of Education issued a report in 1935 that criticized weakness in school curricula, continual fluctuation in the examination system, inadequate methods used in language instruction, crowded classrooms, ineffective inspection systems, excessive centralization of administration, ineffective and inadequate teacher training, lack of balance between moral and social education, and reliance upon memorization of facts as a means of acquiring knowledge. Attention was directed to matters that did not confront either the secular or religious aspects of the system and culture, such as age admission to secondary school and procedures for standardizing other post primary studies (Cochran 2008).

Since the secondary school examination was the entry door for university education, which was the aspiration for most secondary school students at that time, the exam was hence of high stakes to students, something that clearly has not changed much in our modern time. In 1923, there was only one national university (The Egyptian University). Al-Azhar was not recognized as a university despite its renowned status as a

seat for traditional Islamic instruction. Higher institutions such as the French Law School and the Muslim Judges School had low enrollment rates (Cochran 2008).

In addition to elementary, primary, and secondary public schools, there were also foreign language and religious schools. Each primary, elementary, and secondary educational system was administered by random, adjunct, or separate units which hindered educational reform. During this period, which lasted between 1923 and 1952, no clear sense of a national curriculum evolved. However, national leaders at the time aimed at unifying national educational systems – foreign, private, religious, and public. National control over examination served to standardize instruction. But the content of courses, whether secular or religious, continued to be in conflict (Cochran 2008).

This review of British educational policies in Egypt does not aim at providing a completely bleak image of education during colonialism. My aim is to present a portrayal of how education was historically perceived as an important tool of politics and the kind of sentiments that independence movements and post-colonial regimes had to interact with and respond to. A number of positive steps did take place, including the establishment of the first civil-society university in 1908 called the University of Fouad I, renamed Cairo University after the 1952 Revolution, the only Arab university to receive a ranking among the world's top 500 universities in the 2007 Academic Ranking of World Universities published by the Institute of Higher Education at Shanghai Jiao Tong University. The Constitution of 1923 made primary education free for all (Ashmawy 2006).

Leaving Egypt to take a broad look at colonial education policies in the Arab world at large, we find parallels to persistently lower funding for education coupled with education discrimination. These policies led to a situation of low education attainment and an ideological perception that the west has advanced because of spreading education, while depriving the Arab world of this asset, and that a way to develop national strength is through education (Richards and Waterbury 2008). The value of education was hence perceived from a nationalist perspective and as worthy in itself. However, and as I will explain later, the affiliation of education expansion with the expansion of the role of the state in all social domains after independence shifted the perceptions regarding education into an element of numbers; that is, the number of graduates for governments and a way to obtain certificates for students/parents. Given poor salaries that became the norm after the huge expansion of the public sectors postindependence in many Arab countries, the value of education in public perception has deteriorated.

While paying low attention to education was a characteristic of most of the Ottoman rule, which dominated the region for some 400 years starting the 16th century, the colonial approach has arguably reversed some positive trends that have been taking place in some countries in the region (Khalidi 2004). The outcomes of these practices are clear from the post-independence situation. Historical data shows that in 1944, illiteracy in Algeria was 86%; 84% in Egypt in 1937, 87% in Libya in 1950, and 86% in Morocco in 1940. Enrollment was as low as 9% in Algeria in 1944. Between 1940 and 1945, the average enrollment of students of school age was 42% in Algeria, Egypt, Iraq, Lebanon, Libya, Morocco, Palestine (including Arabs and Jews), Syria, and Transjordan (currently

the Kingdom of Jordan). Lebanon was an exception, with 72.7% enrollment rate<sup>32</sup> (El-Ghonemy 1998).

At the time of independence, adult illiteracy rates were appalling. They ranged from 70% in Syria and Tunisia, to 85% in Algeria, Iraq, and Libya. The lowest rates of illiteracy were in Kuwait (53%) and Lebanon (45%), while the highest were in Sudan (90%) and Mauritania (95%). When Egypt gained its partial, or nominal, independence from Great Britain in 1922, 85% of the adult population was illiterate. In all countries, as is the case today, illiteracy was much higher among women. Female illiteracy was almost universal (89-98%) in Morocco, Saudi Arabia, Libya, and Yemen. Enrollment rates for children at primary school age were also low. They hit a low of 5% in Mauritania and 25% in Sudan. These percentages, however, were higher in Egypt (66%), Syria and Jordan (78%), while the highest was in Lebanon (90%). Without the traditional Qur'anic schools like *kuttab*, these percentages could have been much lower. These places continued to be established by Islamic institutions and individuals enthusiastic about teaching children, especially boys, the Qur'an and the principles of math and science (El-Ghonemy 1998).

Low spending was not the only negative attribute of education policy during colonialism. Discrimination in education contributed to protracted conflicts in the region and created an environment of unbalanced growth between different regions, religions,

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32. This is arguably a result of the presence of a number of American and European missionaries who were active in the field of education (Cleveland, 2009).

and groups. For example, the French colonial authorities in Algeria allocated only 20% of public expenditure on education to Muslims, who represented nearly 90% of the country's population. A similar situation existed in Libya. During the Italian occupation, public spending on education discriminated against Muslims and, by the time of independence in 1951, Libya had only two men with university degrees – a ratio of one to a million inhabitants. Mauritania's first President, Moktar Ould Daddah, was the only Mauritanian to hold a university degree at the time of independence in 1960. In Morocco, after 43 years of French occupation, there were only 19 Muslim doctors and 15 engineers of the total population of 11 million people. When Iraq gained independence in 1961, there were only 16 university graduates, and the enrollment rate in primary and elementary education was only 8% (El-Ghonemy 1998).

Educational discrimination was reflected bluntly in Palestine, where the plans of colonial powers to divide the land in the region according to certain interests paid no attention to peoples, history, and culture. Palestine was under the British mandate between 1917 and 1948. The purpose of the mandate according to the principles of the League of Nations was purely administrative; that is, to administer parts of the defunct Ottoman Empire until the people of these lands are able to stand up for themselves. The outcome of this mandate, however, was the expansion of Jewish immigration and military organizations leading to the establishment of Israel in 1948. The British policies during the mandate created two parallel systems of education, one for the Jews and another for the Arabs. Jewish education was mainly in Hebrew and of high standard. The two systems were, and still are in the occupied territories, administered separately. In 1940,

the student-teacher ratio was 45:1 in Arab schools and 24:1 in Jewish schools. A fundamental source of this variation was the flow of cash from Jewish non-governmental organizations in the United States and Europe (El-Ghonemy 1998). This striking duality remains a source of divide and animosity that continues to block the road to peace in the holy land.

While the account on the pre-colonial era showed the roots of dual administrative systems in religious and secular education, in addition to other foreign and missionary schools, as was the case during Muhammed Ali in Egypt, this duality further developed under colonial administrations in Arab countries. In general, colonial rulers established schools for their nationals in the occupied countries which replicated educational systems and standards back home. There were also bi-cultural schools in which the language of the colonizer was dominant. Examples of these schools include Brummana, St Joseph. St Marc, Les Frères, Antura, Aleppo, and Victoria Colleges. Such schools contributed to the intellectual and developmental efforts during the time of occupation. They were, however, only accessible to the children of the rich natives who could afford the high fees, and who were generally politically friendly to the colonial administration. For the rest of the population, there were usually government primary and secondary schools. These schools were of much lower quality and their fees were relatively lower (El-Ghonemy 1998).

In the Arab Gulf region, the closed nature of social systems and isolationist policies under treaties with the UK led to high illiteracy rates, political and social conservatism, and low female participation rates in the labor force and education. Before

oil exploration in the 1930s, there was little attention to developing education and other social services. For example, Suliman (2000) points out that, prior to independence and the establishment of the federal union among the seven emirates currently constituting the UAE, there was a general lack of the most important rudimentary services. Particularly in the small and poorer emirates, health, schooling, and housing services were either non-existent or of very poor quality. During this period, education systems became directed toward preserving the traditional ways of thought and belief.

The first modern schools were established at a relatively recent date: 1934 in Saudi Arabia, 1937 in Kuwait, 1940 in Bahrain, 1956 in Qatar, and 1968 in the UAE. Although there is discrepancy in statistics, it is clear that illiteracy rates in the Gulf were higher than in other Arab countries. In 1950, the illiteracy rate was 87.2% in Bahrain, and 99.5% in Qatar and Saudi Arabia. In 1957, 66% of Kuwaitis were illiterate. UNESCO places the illiteracy figures in 1990 at 46% for Saudi Arabia, 41% for Bahrain and Qatar, and 42% for Kuwait (Suliman 2000).

As in the Socialist republics, education played a political role that was under the direct attention of the colonial power. Formal education started to progress in the Gulf during the 1950s and 1960s for most countries, although there was a consistently later start for women with a 10 to 15 year lag. Oil discovery in the 1930s was a major boost to education in the region. Another important factor was the education missions coming with modern education during the 1950s and 1960s from neighboring Arab countries. There were Egyptian missions to Kuwait, Saudi Arabia, Bahrain, and Qatar, and Qatari and Kuwaiti missions to the UAE (Suliman 2000). To counter the possible influence of



Arab nationalist sentiments and independence orientations that could stem from these missions, the British occupation consciously encouraged the establishment of schools that teach the English language and other subjects in an attempt to counter this influence (Dakhiel 2006).

### Concluding Remarks on Education during the Colonial Era

Education during the colonial period mainly catered to the economic needs of the colonial powers to extract resources from the countries they occupied. As a result, they paid little attention to free education or to linking education to the needs of the economy, other than in spheres which were relevant to the economic needs of the occupying power, as was the case with the railroad industry in Egypt which was essential for the transportation of cotton. There was also little attempt to unify the various institutions responsible for education. Religious education through institutions such as *kuttab*s remained central for the education of the masses. The result of diverse institutions for education by foreign, private, religious, and public entities made reform difficult and created a sense among national leaders in Egypt and other countries that unifying the system was a main starting point for reform. Control over national examinations was the first step in this regard.

Nationalist movements aimed at unifying educational systems as a way to increase literacy, build national character, and create secular leadership. This drive was clear in Egypt when, in 1923, it gained its official independence from the UK despite the continued presence of British forces in parts of the country and the direct intervention in

the country's politics. Financial and cultural variables hindered reform, which was achieved in steps through control over the examination system and setting curricular requirements that foreign and private schools had to abide by. Curricular and administrative reform was hindered by the cultural dichotomy between religious and secular education, which were sometimes perceived as representing different worldviews in conflict with each other. The compilation of material for secondary school students which resulted from the preference for layering subjects and material on top of each other led to a situation where memorization and teaching to the exam were reasonable means for muddling through the large quantities of material for which the student was responsible for in high stakes exams.

#### Independence and State Formation

The period of independence represents a critical juncture – a period when important interests, ideas, and institutions develop in a way that affects future developments. This is the case for a number of reasons. For one, independence, generally speaking, is a point when a particular state declares its existence, not only through defining its government, population, and boundaries, but also through delineating its purposes and reasons for existence. The new regimes after independence aimed at creating independent structures and achieve economic growth. Economic growth, structural transformation, and state policies have direct and indirect effects, intentional and unintentional, on economic and social structures.

In this section I attempt to explain the effects of economic policies on educational institutions and outcomes. I then discuss the nature of the social contract and how it affected the link between the education sector and the needs of the government sector. In this discussion, state choices and economic policies interacted with exogenous and contextual factors affecting decision making, the most important of which has been the rise in oil wealth during the 1970s.

### Economic Choices

While countries in the region varied in terms of state structures and economic policies, the general economic trend during the 1950s and 1960s was toward establishing large public sectors and capital-intensive industrialization, accompanied by a bias toward urban at the cost of rural communities. Many of the countries in the region adopted protectionist industrialization policies designed to encourage domestic production. Behind these policies stood nationalistic and anti-colonial sentiments. During the colonial period, many countries became heavily reliant on exportation of raw materials such as cotton. The fall in the prices of these commodities in the 1930s led to a general mistrust of market forces not only in the Arab world but in Europe as well. Keynesian economic theory rose in importance in both the United States and Europe, and the apparent economic success achieved by the Soviet Union during the 1930s and 1940s encouraged developing countries to follow suit. New economic and political theories encouraged this trend as well (Rivilin 2001).

Despite the continued importance of other sectors such as agriculture, as is the case in Sudan, the Arab socialist model, which is the focus of this section, was largely centered on industrialization through a model of Import Substitution Industrialization based on public enterprises. The general ideas and political orientations were socialist and populist, generally hostile to endogenous private sector, and aimed at achieving social justice defined as equality. An endogenous bourgeois class that could lead post-independence developmental projects based on agreement with the new regimes was generally lacking, even in countries where the settler community was small, as in Tunisia, since foreigners dominated the modern private sector, and national entrepreneurs were often perceived as protégés of the occupier (Richards and Waterbury 2008).

The main tenets of this perspective perceived that profit should not be the primary criteria for judging on economic activities, and that the public sector's performance should be judged based on its ability to create jobs, provide cheap goods of first necessity, introduce new economic activity to remote and poor regions, and achieve self-sufficiency in goods of a strategic or military nature. Based on these tenets, the private sector was seen as untrustworthy; and state planning was the tool of economic organization. A wave of nationalizations took place in Egypt, Algeria, Syria, Iraq, Tunisia, and Sudan during the 1960s. These countries followed the Egyptian model of public sector organization which created large public sector enterprises and used general organizations to supervise production in specific sectors such as textiles, chemicals, and metals (Richards and Waterbury 2008). The nationalization of the petroleum sector in

such oil rich countries as Iraq and Libya created large resources that supported state domination (Richards and Waterbury 2008).

The setbacks of this system started to surface at different points in time during the 1960s and early 1970s. They were symbolized, however, by the Arab defeat in 1967, when Israel occupied the Egyptian Sinai peninsula, the Syrian Golan Heights, the West Bank, which was under Jordanian control, and the remainder of historical Palestine, including East Jerusalem, which stayed under Arab control after the end of the first Arab-Israeli war in 1948, known as the War of Independence in Israel, and the *Nakba*, or Catastrophe, in Arab countries (Simon and Abdel-Moneim 2010).

Public enterprises failed to generate profits, and represented a net drain on the economy. While the public sector was able to generate jobs and achieve some other successes when first implemented, the net results were short of what was planned for. Public production was not competitive, and hence was mainly targeted for the local market. This style could be sustained for longer in countries that had large markets. Given the orientation toward heavy industry, hard currency was needed for importing capital goods, and this uncovered the weakness of the socialist economies. This was not a major problem for oil exporters such as Algeria, Iraq, and Libya. But it was certainly a problem for countries like Egypt, Syria, Tunisia, and Sudan. Severe economic problems existed in the form of rapid inflation and growing external debt. These stresses pushed for programs of economic reform and structural adjustments, aimed at aligning the economic systems in the region with the supply and demand mechanisms of free markets (Richards

and Waterbury 2008). I will discuss the effects of economic transformations in non-oil exporting Arab countries in the following section.

### The Social Contract

The Arab socialist regimes, perceived a direct link between colonial policies and poor education, which resulted in backwardness and facilitated the job of the occupier in extracting their countries' resources (Richards and Waterbury 2008). Free, publicly provided education has therefore become a central tenet of the social contract in almost all newly independent countries in the region. The economic growth achieved during the 1950s and early 1960s by countries that shifted toward the socialist model, in addition to the incomes generated by oil extraction, facilitated education expansion (El-Ghonemy 1998).

The social contract in the socialist republics included a guarantee of social and economic rights on the part of the political regime. This included guarantees of free and universal education and guaranteed employment for high school and university graduates. Employment guarantees for university graduates meant that education became an instrument for class mobility, which also meant a shift from rural to urban employment (Richards and Waterbury 2008).

But the financial capacity of the state began to fall short of the needs of expansion. Egypt represents an illustrative example in this regard. The country started after the Revolution of 1952 with a stress on education as a source of building a national spirit and the national economy, and ended up with neglecting education under financial

and military pressures, administrative inadequacy, and overexpansion of the sector.

Education in the aftermath of the revolution became an important space for Arabism and Third Worldism (Herrera 2008). Centralized administration, standardized curriculum, escalated enrollment, and technical education were emphasized to promote Egyptian patriotism through education of the masses. The study of Arabic and science gained nationalistic emphasis (Cochran 2008). The buildings and facilities, however, did not grow at the same pace of increased enrollment. In other words, the limited space placed constraints on the right of each individual for free education (Cochran 2008).

Furthermore, teachers had to take extra loads to meet the shortage. National exams rose in importance as gatekeepers since they became the only feasible and objective standard for the millions of students who want to continue their free education. The two gatekeeper examinations in the Egyptian pre-university educational system are between primary and preparatory, and between preparatory and secondary. The high stakes secondary examination remains the gatekeeper to university education. Given the high stakes of these exams, test taking superseded learning, acquiring skills, or applying knowledge as a goal for students, parents, and teachers (Cochran 2008).

Regime legitimacy is related to the social contract established during independence. Many regimes in Arab countries still base their legitimacy on this period despite many changes in economic orientation. The fact that education was a central part of the social contract after independence has developed to making the very attainment of a diploma an integral part of the social contract that cannot be tampered with. Sayed (2006) mentions an interesting example regarding the centrality of education, regardless

of its quality, as a source of legitimacy for the regime and a sign of its commitment to the masses. In Egypt, free education was first instituted in 1923. But the extension of free education to university and post-doctoral levels has been widely perceived as one of the most important achievements of the 1952 Revolution, on which the Mubarak regime drew its legitimacy. In 2000, Al-Ahram daily newspapers published an article accusing the Minister of Education of intentionally inflating the results of the Secondary School exam (al-thanawiya al-‘amma) in order to gain public support ahead of the parliamentary elections. Needless to say, free education does not necessarily mean that the government allows everyone to succeed by inflating grades, and these grades do not necessarily mean quality education translated into better skills, more employment opportunities, or higher added value into the economy.

#### Economic Choices, Social Contract, and Educational Institutions

The 1950s and 1960s represent a founding period for educational management systems that continue to affect the outcomes of education and its relation to economic performance until the present day. The influence of this period stems from the economic environment and the institutional context, both reflecting the dominant role of the state.

#### The Economic Environment

Public sector employment created an economic environment that required employees to be passive recipients of orders in state-owned hierarchical organization with confined areas of responsibility. Individual responsibility and the ability to respond



to less routine problems, basic skills in the present economic environment, are generally not needed in such contexts (Heyneman 1997). Table 22, from Heyneman (1997), explains the link between the nature of the workplace and the kind of education that produces the matching skills.

Table 22. Nature of the Workplace and the Kinds of Education that Match It

Traditional		Future	
Workplace	Education	Workplace	Education
Passive order-taking in a hierarchical organization; heavy supervision to control workers.	Teachers convey knowledge to passive learners.	Workers expect to take responsibility for identifying and solving problems and for adapting to change by learning	Under teacher support and guidance, students assume responsibility for learning, in the process developing know-how-to-learn skills.
Emphasis on limited responses to limited problems and getting a task done.	Emphasis on facts and getting right answers.	Workers deal with non-routine problems that have to be analyzed and solved.	Emphasis on alternative ways to frame issues and solve problems.
Focus on the specific task independent of organizational context or business strategy.	What is to be learned is stripped of meaningful context.	Workers expected to make decisions that require understanding the broader context of their work and their company's priorities.	Ideas, principles, and facts are introduced, used, and understood in meaningful context.

*Note:* Reproduced from Heyneman (1979).

This comparison between traditional and market-based, or future, workplaces assumes that educational systems are responsive to the needs of the job market. In this logic, the future workplace, which requires taking responsibility, responsiveness to non-routine problems, and sensitivity to context, requires an educational system that builds skills and an understanding of context. Even after the beginning of economic reforms and until the early 1990s, Middle Eastern economies remained highly protected, and therefore tend to produce low-skill jobs producing relatively simple products in protected sectors (Shafik 1994).

#### The Institutional Context

In line with the dominant role of the state in the economic life, the first purpose of the educational systems was to produce workers for government enterprises. The main assumptions of educational management in the Arab world have arguably changed little since the 1950s and 1960s. These assumptions were based on the idea that occupational specializations could be anticipated because growth was planned through manpower forecasts. Access to higher education was, in turn, governed by manpower planning based on the needs of the economy. Academic training was assumed to be irrelevant for non-professional occupations. It was assumed that there would be little movement across specializations, or between manual, technical, and professional occupational levels. The state opened and closed programs according to its estimates and plans, and allowed little opportunity for individuals to follow their own estimates of market demands (Heyneman 1997).

The movement between levels of education and access to specific faculties is determined by performance on national examinations and national curricula. These examinations reflected a clear urban bias. The availability of specialized secondary schools is higher in urban than in rural areas. Rural students and those from impoverished backgrounds were generally unable to enter specialized secondary schools in proportionate numbers, and thus tended to concentrate in terminal secondary technical schools or in faculties of humanities and social science in higher education institutes. This meant that secondary technical education became an avenue to higher education. Since entry into higher cost and prestigious faculties such as medicine and engineering was limited not by demand but by administrative decree, higher education was allowed to expand more rapidly in social science, leading to lower quality in many of these faculties (Heyneman 1997). It is possible to argue that Arab students continue to favor social sciences and humanities because these are the fields traditionally valued in the public sector (Richards and Waterbury 2008).

The problem in Arab countries is that this centralized institutional system persisted despite economic and political changes. Other countries have also started with centralized institutions that limited mobility and choice during the 1950s, but things have changed at a later stage. In the UK for example, secondary schools were specialized during the 1950s. Access to university education could be achieved through secondary grammar schools, and graduation from secondary common schools was considered terminal; that is, it does not allow to enter university education. Entry into secondary grammar schools was determined by an exam at age 11. This situation has changed since

the 1960s, however. In the UK as well as in other Western European countries, secondary education has broadened. Today, there are few specialized secondary school programs in which access to university is prohibited. There are wide latitudes for curricular choice and for changing one's choice of program (Heyneman 1997).

### Summary of the History Box

I started this chapter with a framework presented in Figure 1, where history was the first box. The main idea presented in the previous argument is that influences from the colonial history and the era of state formation had long enduring effects. Colonial powers paid little attention to education in Arab countries. The mosaic picture of various education institutions and curricula in Arab countries interacted with searching for identity among independence movements and the traditional elites educated in religious institutions – mainly the *kuttab*. These diverse foundations led to complicated curricular contents and policies for transition into higher education levels, ending up with a tacit acceptance of the need for centralized control and blind equality to guarantee fairness.

The economic choice and social contract in the Socialist Republics of the 1950s and 1960s stressed quantitative expansion of education and guaranteed public employment for graduates of the public educational system. This further stressed the importance of equality at the cost of quality, which continued to deteriorate as the limited resources available in these countries rendered expanding educational access meaningless. The main interest of the government was focused on numbers of graduates, and the interest of students and their parents was directed toward obtaining a degree. The

expansion of the public sector favored memorization-based educational systems and directed student to fields of social sciences and humanities, which are preferred in public hiring.

### Oil: Economic Choices, Social Contract, and Educational Institutions in the Arab Gulf States: A Rentier Mentality?

The expansive role of the state and protected economies can also explain a good deal regarding the relation between education and economic performance in the Arab Gulf region. But the reliance of these countries on oil revenues and the special nature of state creation established distinguished characteristics that claim special attention.

The main determinant of economic choices in the rentier Gulf countries was the oil wealth, which put the logic of political development in the west on its head. Instead of being concerned with sources for mobilizing finances for government expenditures and asking where to get money from, the question for GCC countries was how to spend money (Cause III 1994). This had direct effects on governance structures. Petrodollars allowed the expansion of the state role in almost all social and economic spheres (Moore 2004; Sadiki 1997). Arab Gulf countries have the largest public sectors in the Arab world (Richards and Waterbury 2008).

The developmental policy in the Arab Gulf states was centered on the state given the fact that it had control over oil – the main economic resource. The state started by the expansion of basic infrastructural projects since many of the basic services such as electricity and fresh water supply were not available. Education, health, and housing

services were expanded broadly during the process. The state then started to collaborate with private investors for the development of larger projects. Economic incentives were offered to encourage nationals to join the process. These incentives included interest free loans, tax exemptions, lands, and other facilities. Incentives for expanding private initiative aimed at economic diversification and industrialization. However, given the limited capacity of the domestic markets of many of these countries and the effects of the Dutch disease which increase incentives for investing in areas related to the natural resource, increase imports, and discourage exports, the outcome in many of these countries was to limit diversification to oil-related areas such as petrochemicals and hydrocarbon industries. Construction also expanded rapidly (Looney 1994). Agriculture lost ground and migration into urban areas increased (Al-Kazi 1983).

In this environment, public employment was an avenue of rent distribution. The expansion of the public sector aimed to achieve a number of goals in addition to the need to cope with the large projects that were pursued with the oil wealth and acting as a tool of control. One of these goals was to act as another avenue for rent distribution. In essence, public employment, and the high privileges associated with it, became important dimensions of the extensive welfare systems put in place by the ruling elites in oil-rich Gulf states. Nationals in government jobs enjoy the high salaries, fringe benefits, and social prestige associated with government employment (Gonzalez, et al. 2008). The welfare state system extended to providing social allowances, land, housing, and loans (Al-Kazi 1983). Reliance on expatriate labor has increased on the other hand, causing social and political concerns for political stability and economic sustainability. Another

purpose for the growth of the public sector was to act as an area for absorbing the labor released from agriculture and other traditional sectors such as pearling (Fergany 2001).

The growth of the government apparatus in the Gulf did not only begin with the oil boom in the 1970s. It started before that. Kuwait established a centralized Planning Board in 1962 and adopted its first five year plan in 1967. In Saudi Arabia, then Crown Prince Faysal's 1962 ten point reform program led to administrative growth, as the government sought to make good on its promises to foster educational, economic, and infrastructural development. In January 1970, Bahrain implemented a new administrative structure, replacing 21 separate departments which had grown up during the 1950s and 1960s with a 13-member cabinet. However, before independence, it was difficult to speak about a government in the bureaucratic sense in Qatar, UAE, or Oman outside of British advisers (Cause III 1994).

Planning institutions started to develop in Gulf countries following oil explorations and developmental plans that made these societies rapidly more complicated. The size of oil revenues determined, to some degree, the timing for when institutional development started in order to guide the economic and social reforms. For example, planned development in the UAE started before the creation of the federation in December 1971. Abu Dhabi, the emirate endowed with the most oil reserves, was able to set up a Developmental Fund in 1965. On the other hand, Qatar started by taking a few projects at a time since its oil revenues were the smallest compared to Saudi Arabia, UAE, and Kuwait. As a result, it has not felt the need for a central planning apparatus. In 1972, Qatar requested a British firm of consultants to launch an all-encompassing survey

of the developmental requirements for the entire country. In the end of 1973, this broad plan was adopted (Al-Kazi 1983).

Educational institutions in the Arab Gulf region are affected by the foundation of the regimes, which was based on Islamic political ideologies and tribal support. This foundation, which I will elaborate on further below, explains the perception that Muslim states have followed a path to modernity that bases progress on a centrally administered emphasis upon moral as well as economic development (Herrera 2008). This observation could be true of most Arab countries, with a few exceptions such as Lebanon where diversity and the civil war history led to reducing the emphasis on religious education on the national level.

The importance of religious education in Gulf countries stems, at least in part, from the foundation of the state. The foundation of legitimacy in Gulf states is based on the dual forces of tribalism and Islamic ideology. Islamic political ideologies were used to foster alliances and unite tribes into larger political movements. Tribal support was absolutely necessary for the founding of these states. This is clearest in the case of Saudi Arabia, where the alliance between the Al-Saud family and Wahabbism started in 1745 when Muhammed Ibn Saud, ruler of a small oasis town called Dur'eyya, formed an alliance with Muhammed Ibn 'Abdel Wahab, a scholar who was preaching a reform of religious practice through a return to strict and more pristine interpretations of Islam. This alliance was central for military mobilization during Abdel Aziz Al-Saud's campaign to create control over present day Saudi Arabia. The alliance continued across generations to the present through intermarriage between the two families. Given similar foundations



in other countries in the Arab Gulf, these countries had to leave certain social issues under the influence of religious groups, with varying degrees based on the ability of the state to establish its control over these groups (Cause III 1994).

The religious content of education curricula has thus been traditionally emphasized in GCC countries. In 1985, Saudi Arabia was the highest among all Muslim countries in terms of the time allotted to Islamic education within the curriculum, which was 30% of the time (Zia 2010). In 1995, a conservative estimate of the curricular structure of primary education would put the literature content, in which Islam also plays an important role, at 70% of classes, on average, while science and technology subjects accounted for 20% (Samman 2003). By 2006-2007, the percentage dropped to 14%, and Yemen replaced Saudi Arabia as the country with the greatest percentage of time allotted to Islamic education at 20%. Another observation is that Arab countries foster the spiritual and moral development of children almost exclusively through religious education (Zia 2010). According to Eaterlin (1998), the content of religious studies is not always conducive to economic development.

The centrality of Islamic education in the Saudi educational system is embodied in the stated goals of the 1970 Educational Policy and Guidelines issued by the Higher Committee of Educational Policy. The goals, objectives, and principles of the Saudi educational system aim to ensure that the religious, economic and social needs of the country are met. The Educational Policy and Principles, which govern and direct curricular policies in the Kingdom, state that Islam should be at the core of the curriculum (Abdulsalam 2008). There is no problem in religious education per se,

probably until its expansion comes into conflict with other classes such as math and science for students' time, which is the case in most Arab countries (Herrera 2008; Zia 2010).

Outside Saudi Arabia, the Wahabbi ideology had little influence until it started to expand during the 1970s. Its simplistic and parochial interpretation of *hadith*<sup>33</sup>, dislike of art, call for the segregation of women, and validation of religious police, among other characteristics, made it of almost no appeal outside the peninsula. Doumato (2007) argues that a main change happened in 1933 when the famous Egyptian writer Taha Hussein mistakenly considered Wahabbism as a vehicle for Arab nationalism. The main interaction which broadened the influence of Wahabbism was the meeting with the ideas of the Muslim Brothers based on *Salafism* – the return to the pure source of Islam. The Muslim Brothers called for a reformed Islam as the answer to colonialism. These ideas were meshed in with the Wahabbi ideas regarding the unity of religion, spirituality, and politics.

The radicalization of the Brotherhood during the 1950s and 1960s brought them closer to Wahabbism. The Muslim Brothers came to influence the educational system in Saudi Arabia when a large number of teachers affiliated with the Brotherhood from Egypt, Syria, and Iraq were given asylum in the Kingdom as a way to counterbalance the threat of Arab nationalism on conservative monarchies. The teachers who came to Saudi Arabia during this period, many of whom were from the Muslim Brothers, found an

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33. *Hadith* is a reference to what Prophet Muhammed had said or done.

educational system in its infancy. They worked as teachers in schools and universities and as officials in the Ministry of Education, where they designed curricula, wrote textbooks, and forged ties with Saudi ulama (Doumato 2007).

The problem of such outcome is that it becomes so intertwined with regime legitimacy and social contract that it could become an obstacle for change. In Gulf countries, the groups with direct influence on the education system are not illegal, and their role reflects the foundation of the state. The challenge in these countries would be to navigate a way for educational reform that takes into consideration the effect of Islamic ideology and bureaucratic influences.

### Summary of the Oil Box

In Rentier countries, religious education became an integrated part of the foundation of the state. The expansive role of the state and lucrative government employment favored public employment and compromised the incentives facing students to engage in challenging educational endeavors. I will elaborate on this point further when discussing the “welfare mentality” as part of the incentive structures for students and parents in their approach to education.

### Political Stability and Regime Security

Political stability and the security of the regime in power, as discussed in chapter II, are important determinants of the long term perspective of the political incumbents. In order to discuss how this dimension plays in education policy and reform, I will discuss two issues: the definition of security and the control functions of education.

### Definition of National Security

The definition of national security and the status of education within it are important for understanding the will for reform. It is difficult, whether among Arab countries or in any other place, to find a leader who does not stress the value of education and the importance of education reform for the future of the nation and its international status. From Syria's Al-Assad to Egypt's now-former President Mubarak, to Qaddafi's Libya, to Algeria's Bouteflika, Arab leaders never fail to stress the central role of education in their national plans for development and economic growth. In this context one is induced to ask about the reasons for the maintenance of obsolete educational governance structures in many countries in the Arab region.

For example, during the 1990s, Egypt's former President Mubarak declared education as Egypt's number one national project (Abdel-Kerim 2001). Beginning in the 1990s, basic education was referred to as a matter of national security in every single presidential speech, ministerial press release, and official government statement addressing the topic. When a topic is signaled out as a matter of national security, it means that it should be beyond the normal ways of doing politics, and that sufficient resources should be guaranteed for it (F. H. Sayed 2006). Budgetary allocations to education did increase significantly starting the 1990s (Abdel-Kerim 2001). But the problem is that they were never sufficient (F. H. Sayed 2006).

Most education funding in Egypt goes to current spending on salaries and compensations instead of investment<sup>34</sup>. This nature of spending does not direct resources to the core of the education process – the classroom, where the expectation is to have up-to-date curricula, examination systems, incentives for teachers, and ways to hold both teachers and school administrators accountable for outcomes. This is why Galal (2002) points out that we need to understand the composition of public spending on education in order to understand the outcomes of the education process. On the other hand, one notices a continued decrease in education spending as percentage of public spending and as percentage of GDP between FY 2002/2003 and FY 2008/2009 despite the rise of spending in absolute terms (ElHosseiny 2009). This trend toward fewer resources in relative terms directed to the field of education comes at a time when a number of national and international experts argue that one problem of implementing education reform programs in non-oil rich Arab countries stems from funding.

In this context, it might be difficult to highlight what the state wants from education and the perception of the leadership for reform. On the one hand, leaders in the region stress the role of education for economic growth and development. However, when we look at the allocation and distribution of resources and the willingness to invest more in education, we find contradictory evidence. Absent economic and political commitment, defining education as a matter of national security will not lead to

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34. In Egypt, current spending has been steadily increasing, from 71.1% to 83.5% of total spending on education between the financial years 2000/2001 and 2007/2008 (ElHosseiny, 2009).

implementing the goals and objectives of reform. In order to understand this contradiction between words and deeds, we need to understand how the state defines national security, interacts with social constraints on reform, and attempts to guarantee stability while pursuing change.

As previously explained, independence in many Arab countries came after confrontations with occupying powers. This was the case in a number of Socialist Republics such as Egypt, Algeria, and Libya. The situation in a number of Arab Gulf countries is different. The British presence in the Gulf region guaranteed the independence of ruling families who negotiated their independence with the British. In the former group of countries, the Socialist Republics, the multiple threats confronting the new regimes after independence had direct effects on their definitions of national security.

The case of Egypt could present an illustrative example. The definition of national security in Egypt could be traced back to the 1952 Revolution, when the “Free Officers” were trying to consolidate their power against domestic and international challenges. As a result of multiple sources of threats for regime survival after 1952, almost every internal issue became a matter of national security – defined as the survival and reproduction of the ruling political system (F. H. Sayed 2006). While this definition of national security was broad in terms of defining the sources of threat, it was narrow in terms of limiting threats to acts of violence, domestic or international, affecting the political regime.

After a period of power struggles, the main domestic threat to the political regime established after 1952 in Egypt became political Islam. A branch of political Islam turned

violent during the 1990s and led a wave of violence that claimed hundreds of innocent lives. A similar wave took place at a much higher level in Algeria. This point is reflected in the description of former Minister of Education in Egypt, Hussein Kamel Bahaa El Din, of education as contributing to the military, economic, and political security of the country. The political security dimension includes contributing to democracy and internal peace through empowering students to think critically, thus protecting them from brainwashing attempts by terrorists and extremists (Ginsburg, Megahed, Elmeski, and Tanaka 2010).

On the external front, the main threat for Egypt's territorial integrity came from Israel. In this context, education became an important tool for national unity against external threats and an important arena for stopping the spread of the influence of Islamists. This could explain why, even after signing the Peace Treaty with Israel in 1979, the state continued to exercise direct control over all aspects of education (F. H. Sayed 2006).

Education plays an important role for national security in yet another way. Education, in the sense of building schools and supervising them, is a demonstration of the presence of the state. For example, when the border dispute of Halayeb and Shalatin between Egypt and Sudan resurfaced in 1992, one way the Egyptian government intervened to confirm its territorial sovereignty, after it had intervened militarily, is through building schools. The government established more primary and preparatory schools, extended health services to all villages, and provided other state services. The purpose was to strengthen the feeling of Egyptian citizenship among the villagers and

integrate their children within the formal educational system (F. H. Sayed 2006). While there is nothing wrong about extending schools to all parts of the country, this example tells us that the state's definition of national security in the narrow sense as guaranteeing regime survival and maintaining territorial integrity has pushed toward a focus on the quantitative aspect of education expansion relative to qualitative development.

We find echoes of the logic of building schools to stress the Egyptian character in Halayeb and Shalatin in the attempt of many governments in the Arab world to build schools and monitor the educational system closely through a centralized structure in order to guarantee that political Islam is not spreading through schools and that the topics discussed in school curricula are in line with regime alliances. For example, Yamani (2006) argues that Saudi Arabia insists on maintaining control over its education system and avoids decentralizing educational services given the political limits of its historical alliance with the Wahabi movement. Teaching Darwin, for example, in a small school in the outskirts of the Kingdom would be political suicide for the ruling family.

In sum, while Arab regimes have stressed the importance of education for economic performance and national security, their focus was clearly on a traditional and narrow definition of national security centering around regime survival. Many of the non-rentier regimes were themselves established through coup d'états, which meant that they had to struggle to maintain their status against domestic and international challenges. The security challenges faced by many countries in the region means that education is an important tool for nation building and sometimes for resistance, as in the case of the Occupied Palestinian Territories. Domestically, education strengthens the presence of the



state and gains it important ground against opposition groups, especially Islamic opposition. This focus on regime survival and territorial integrity in the definition of national security explains the observation that Arab countries were successful in the quantitative dimension of education reform but were less able to establish educational systems based on incentives for high performance and accountability for outcomes. The drive for control is an important factor in explaining differences in education reform among Arab countries.

#### Control and Change in Education Policy

One reason for the maintenance of the current institutional system is the continuity of what Herrera (2008) calls the continued paradox between economic and political reform, between local autonomy and global governance, or between development and national security. In order to understand the reasons behind the delay in reform in Arab countries in the field of education, despite economic changes since the 1970s and, especially, since the 1990s, it is important to address the issue of control. Threats to regime stability affect its interest in long term growth, and security threats act to defer important reforms for fear of political repercussions.

The issue of control could be addressed through 3 points: control over actors, control over curricula, and control over structures. These kinds of political and administrative control meet in maintaining centralized institutions and hindering change in the system's administrative structures.

### Control over Actors

It is difficult to do a generic review of social actors or policy networks in the field of education in Arab countries as a group. This is an issue which could be left for individual case studies.

One main observation to note about Arab countries is the fact that the political space is dominated by the state. The opposition, on the other hand, whether secular or Islamic, is rather divided. This situation, for a while, has led to political stagnation (Ottaway and Hamzawy 2009). In other words, there is an imbalance of power and capacity in favor of the state and the bureaucratic establishment versus civil society and other actors in the political arena. Despite the pro-democracy uprisings that swept through a number of Arab countries, it is still too early to determine how the balance has changes.

This means that the concerns, fears, and interests of the state and the bureaucracy are more likely to prevail. Nolting (2005) notes that the actors relevant to an understanding of governance structures in the Arab world are: governments; professional organizations, lobby groups, and NGOs; the military, and Islamist organizations. The military is an important domestic actor, but its relevance to the formulation and implementation of education policies is not central in this study, except for competing for resources in the government budget. Professional organizations and other interest groups have been active in a number of countries in attempting to present sectoral demands and calling for expanding participation, but their role in formulating public policies is

arguably limited. Therefore, the main actors I focus on in this discussion are Islamist groups and civil society.

### Islamist Groups

The Muslim Brothers are particularly active in the education market in many Arab countries (Leirvik 2004). For one thing, education has been an important approach for the founding and expanding influence of a number of Islamist groups. Hassan El-Banna, the founder of the Muslim Brothers in Egypt in 1928, was himself a school teacher. This activism has historically been an important way for infiltration and expanding support for both non-violent and violent Islamist movements in Arab countries.

Islamist movements are organizationally the strongest among opposition groups in the Arab world because they have devoted much systematic effort to building up their political structures as well as networks of social welfare organizations that help them establish a social presence (Ottaway and Hamzawy 2009). The decline in the state budgets and allocations to the education sector allowed Islamist groups space to provide social services that governments became increasingly unable to provide. A conjuncture of events on the regional level interacted with local changes to facilitate the transformation of the source of mobilization from nationalist to Islamist ideologies (Beinin 2009).

There are different variations of Islamist groups in the Arab world. A number of Arab countries faced a wave of terrorism by radical Islamist groups during the 1990s. The worst of these waves took place in Algeria. Egypt also faced a series of terrorist episodes during this period.

An important trend is represented by moderate groups that seek a role in the political process. There are variations in the recognition of the political regime to these groups and how it deals with them. While the Muslim Brothers was banned in Egypt since 1954 and until the ouster of Mubarak, Jabhat al-'Amal al-Islami (Islamic Action Front) is recognized in Jordan. The Muslim Brothers are forced underground in Syria. In the Arab Gulf region Islamic political groups are not present in the form of political organizations. Instead, Islamic trends depend on important figures such as Sheik Yousuf Al-Quaradawy in Qatar. The Muslim Brothers in the Gulf established their presence through members who started emigrating during the 1950s, especially from Egypt after the clash with Nasser's regime, followed by another wave from Syria during the 1960s as a result of the bloody clash with President Hafez El-Assad (Abdel-Aziz 2010).

Without going into details of Islamic activism in Arab countries, it is possible to argue that the strength and radicalism of Islamic groups act as an important consideration for the extent of reform the regime will go for. While this argument makes sense in Egypt during Mubarak's rule, it might also make sense in the new regime, depending on the nature of the party system and laws regulating political participation, among other factors.

I explained earlier how curricular reform especially in religious education is affected by delicate political balances. In terms of the governance structures of the education sector, Ginsburg, Megahed, Elmeski, and Tanaka (2010) attribute the uneven movement toward educational decentralization in Egypt during the 1980s and 1990s to the conscious effort of the government to avoid the penetration of radical Islamist groups

into the educational system. The competition of nonviolent Islamist groups with the ruling National Democratic Party (NDP) through providing local social services such as education and health services was also met with caution. Sayed (2006) argues that containing the penetration of radical Islamists into the educational system was achieved by fastening the central grip of the Ministry of Education (MOE) and exercising more control on all levels. In an interview with former Education Minister Bahaa El Dinn cited in Ginsburg, et al. (2010), he pointed out that he took open and drastic steps to curtail the activities of “nonviolent radical Islamists,” in reference to the Muslim Brothers.

One could argue that reform in the Arab Gulf region is also affected by the role of Islamist groups. Islamic groups in the Gulf were central for state creation and were given, to various degrees, roles in social policies, including educational policies. But unlike countries where they are officially banned, as in Egypt, or face outright persecution, as in Syria, these groups have played on the fringes of sanctioned institutions (Cause III 1994). This logic also applies in Saudi Arabia where the important Wahabbi family and scholars continue to exercise important control in various fields, including in the field of education.

For example, Yamani (2006) attributes the more aggressive educational reform effort in Qatar compared to Saudi Arabia, although both countries are among the richest in the world, to the more limited role of Islamist groups in the former. This allowed the Qatari leadership to move with limited political and social constraints for decentralization and choice, making use of foreign expertise, mainly through contracting with the RAND Corporation, and initiating curricular reform.

Another category of Islamist organizations are the Islamic religious establishments which exist in most countries. These establishments are usually close to the government. The Wahabi establishment in Saudi Arabia is a good example, where Wahabi organizations, clerics, and institutions are integral parts of the power structure, and the royal family has ceded to it control over most social and educational issues to the point where it is virtually impossible for a child to attend a nonreligious school or for a woman to enjoy even minimum levels of personal freedoms outside the family tutelage. The Islamic establishment in Egypt, centering around Al-Azhar University, is similarly powerful and have contributed to creating a conservative atmosphere in Egypt that was not present until the 1970s (N. J. Brown, Hamzawy, and Ottaway 2006).

A number of religious groups and influential religious scholars in the Arab Gulf region voiced their opposition against education reform in their countries. The reduction in Arabic and Islamic content in school curricula in Qatar and introducing English instruction as mandatory from first grade on raised widespread suspicion. The leading Saudi newspapers *Al-Watan* described the Qatari program for education reform as a conspiracy by a “Jewish foundation,” in reference to RAND (Glasser 2003).

The seeming determination of a number of Gulf leaders regarding reform has passed the initial steps regarding the setup of ambitious programs, especially in Qatar, which provides one of the most comprehensive examples of systematic reform. Other countries could be facing opposition from conservative elements. It is arguable that the relative independence of the ruling elite from traditional religious groups could explain variation in the pace and program structures of education reform initiatives.

One could also expect that governments will be aware of public sentiments that oppose change based on perceptions of foreign plots and conspiracies. These sentiments are established in history and tightly knit with regime legitimacy especially in the Socialist Republics. The creation of Israel in 1948 led the region to wars in 1948, 1956, 1967, and 1973, in addition to continuous violence and violations of human rights conventions to various degrees by Israel, Palestinian resistance groups, and other groups such as *Hizbullah*. The effects of these violent episodes and the resulting antagonism and flaring of religious and nationalistic sentiments were clear in the so-called “Ring Countries”: Egypt, Syria, Lebanon, and Jordan, in addition to the Palestinian Occupied Territories<sup>35</sup>. These continued tensions and their victims created strong definitions of the Self and the Other. The societies found in history, language, religion, and culture important tools for resisting some sort of a conspiracy or conspiracies being woven by Western countries with a central role for Israel. This kind of collective conspiracy theory mentality has direct effects on education reform given the central role of education as a tool of national mobilization and identity formation (F. H. Sayed 2006).

Sayed (2010) explains how curriculum reform in Egypt faced clear opposition emanating from this perception of a conspiracy theory. Three curricula in particular, and the weight they get relative to other classes, gained special attention and importance: Arabic, Religion (Islam), and History. The conspiracy theory mentality views foreign or local agents engineering episodes, events, and policies to advance their strategic interests

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35. “Ring Countries” is a term used for Arab countries that share borders with Israel.

against those of the country. The champions of this perspective are not only among the lay people, but some of them are prominent intellectuals, political party leaders, and famous journalists. The influence of such people gives weight to their arguments. Whether these arguments have merit or not, a topic I will not attempt to discuss since it lies outside the frame of this work, the result was putting limits on pre-university curriculum reform in Egypt, especially where bilateral aid agencies were involved, particularly the USAID. Accusations of betrayal and being agents of conspiracies against national security targeted ministers and other prominent persons in Egypt for cooperating with international agencies on curricular development. Media and political campaigns were generally successful in ending such cooperation. The USAID in Egypt has decided to stay away from programs targeting pre-university curriculum development after its experience in the 1990s. Aid provided by the European Union and United Nations agencies has faced less controversy.

#### Civil-Society Organizations

Civil society organizations also play some important roles in education policy, although their role is often confined to policy implementation rather than policy making. The service orientation of Arab NGOs is most welcome by Arab government since they pose little political demands and cause limited threats in terms of organizing the masses, a threat not completely ruled out, especially after the recent uprisings. Security services are vigilant to any activity that could escalate out of control (Ottaway and Hamzawy 2009).



These kinds of NGOs serve the purposes of the political regime in a number of ways. First, they help the regime claim a reputation of openness and tolerance internationally, and Arab regimes are willing to work with NGOs in policy making, such as in drafting laws, in order to gain international legitimacy (Ottaway and Hamzawy 2009). Second, these NGOs are not as directly involved in decision making as they are agents for implementing government plans that are usually formulated in cooperation with international donors. The case of Egypt shows that despite the growing role of NGOs in implementing education reforms, they are not involved as active partners in formulating policy (F. H. Sayed 2006).

Despite their limited role in policy formulation, NGOs in Arab countries are active players in the international aid machinery and have developed various techniques for successful competition for funding. As was the case in our discussion of economic development in the region, sources of funding came from Western and Arab, mainly Gulf, countries (Carapico 2000). One could conclude that the more vibrant civil society in countries like Egypt, Jordan, and Palestine is attributed to the need of these countries for funds for social services. Gulf regimes on the other hand can use their own wealth to achieve a more “politically managed” development.

Given their importance as social actors, Arab governments have been alert to coopt and continually keep civil society organizations under their control, especially when they have access to scarce foreign funds. In a study on the political constraints on the activities of NGOs in Jordan, Wiktorowicz (2002) points out that the government uses a combination of administrative oversight, infiltrating civil society organizations, and

creating an umbrella organization, the General Union of Voluntary Societies, in order to create a centralized framework to monitor the activities of civil society organizations. Similar policies could be found in other Arab countries in the Western part of the Arab world – mainly Egypt, Lebanon, and Palestine – which include legal and political constraints. These constraints and the legal framework for civil society organizations are expected to change with regime change and challenges sweeping the region at the moment.

One interesting development regarding civil society organizations, that has been taking place all over the world, in developed and developing countries alike, is the creation of GONGOs – Governmental Nongovernmental Organizations. Through establishing GONGOs, governments attempt to fund and control NGOs. This control does not have to be done with the intention of diminishing the role played by civil society organizations. The National Endowment for Democracy (NED), for example, is a GONGO. It is a private, nonprofit organization created in 1983 by the U.S. government to strengthen democratic institutions around the world through nongovernmental efforts. The interference of Arab governments to encourage the formation of development-oriented NGOs or to create their own GONGOs, such as Saudi Arabia's International Islamic Relief Organization, represents attempts to maintain presence in the civic and non-governmental spaces. Government-sponsored NGOs can absorb some of the cost of socioeconomic programs and projects while constraining the scope and range of associational life (Wiktorowicz 2002).

### Control over Curricula

Control over curricula stems from similar concerns to the ones mentioned above. These concerns are mainly related to the alliances of the political regime and the groups that have direct or indirect control over curricular content. Religious education represents clear manifestations of these controls.

For example, Landis (2003) highlights the paradox between the ruling secular Ba'athist ideology in Syria and the lack of a tolerant and liberal approach to teaching Islam in schools. He attributes this to factors related to the founding of the state as well as the heterogeneity of the population. The current educational system in Syria was established in 1967 with the signing of the Arab Cultural Unity Agreement with Jordan and Egypt. It established the bases for universal curriculum, examination procedures, and teacher training. Many textbooks, printed in Egypt, were used for years in schools in Syria and Jordan. This Arab nationalist school system embodied in a centralized institutional context aimed to promote cultural and political unity among Arab people. Therefore, the focus was on an integrationist version of Arabism and Sunni orthodoxy, which avoided discussing regional or sectarian differences among Arabs and Muslims. Syria's Islamic minorities include Alawis (12%), Druze (3%), and Isma'ilis (1%). However, the only recognized religions are Sunni Islam and Christianity. The foundation of regime legitimacy on Arab Socialism led to a policy aiming at eliminating differences and creating unity.

This enhanced the paternal role of the state. The military defeat in 1967 was followed by nationalizing some 300 Christian schools and 75 private Muslim schools.

These schools were largely based on the Western model and often provided by foreign missions. Private schools are required to follow the same national curriculum. Religious conservatism in the sense of a unifying curriculum was further enhanced following the uprising of the Muslim Brothers in the 1980s. Although President Assad belongs to a Muslim minority, the Alawais, the delicate sectarian compromise in the country, in addition to the foundations of regime legitimacy, created a domination of Sunni Islam in religious education. In 1973, late President Hafez Al-Assad was pressured by widespread protests to include the controversial article that the president of the republic had to be a Muslim. This was accompanied by aggressive efforts to define Alawis as part of mainstream Islam. While basing political power on religion seems to contradict the principles of the Ba'ath Party, the balance between the drive for social and political unity, control, and countering religious uprising has contributed to this outcome (Landis 2003).

Religious education in Jordan also reflects the paradox between modernity and control, and reflects the mismatch between government discourse and outcomes on the ground resulting from the availability of resources and social and political expectations. Mustafa and Cullingford (2008) argue that Islamic education in Jordan is an example of the tension between the desire to control and modern teaching methods that go beyond rote learning. As with many other Arab countries, *kuttabs* were the main institution of learning, and it was only in 1955 with the establishment of the Ministry of Education that a modern system was established. Islamic curriculum is deemed not to be challenged since what is to be learned is assumed to be agreed upon without argument. In practice, teachers do not have much freedom to explore a variety of teaching methods. This is

attributed both to the nature of Islamic education which aims at instilling common understandings among students and the education policy centered around the unified schoolbook on the one hand, and the lack of alternative teaching methods and technologies.

### Control over Structures

The relation between the expansion of the public sector and the role of the state on the one hand, and education on the other, seems cyclical. On the one hand, expanding the role of the state increased the incentive for education certificates to find a place in the labor market. On the other hand, the expansion of formal education was itself one reason for the expansion of the size of the public sector as a source of employment.

Without going into the details of bureaucratic expansion, which was generally characterized by bias toward law and order sectors such as defense, police, and central security forces (Ayubi 1995), the role of Arab bureaucracies in maintaining order even outside the traditional law and order sectors could explain the continued centralization of social policies. According to Max Weber, bureaucracy is the administrative tool for achieving domination in an industrial and rational society. Bureaucracy in this view achieves control not only over society but also over those working within it. This was clearly expressed in his notion of the “iron cage of bureaucracy” – referring to the detrimental effect of bureaucracy, and the mode of subjective rationality that it reflects, on those subject to it. Through controlling the lives of individuals working in a massive public sector that is the main employer, the government guarantees establishing an “iron

“cage” governing the political actions, in addition to administrative actions, of most of its citizenry. In a sense, bureaucratic organizations could replicate modes of the exercise of power on the national level through their direct effects on the lives of individuals within them. According to Dahrendorf (1959):

Weber defined the state in terms of the monopoly of physical force in a given territory. But even in recent times there are examples where the managers of industrial enterprises of production have this monopoly and used their own police force to try to enforce the obedience of their workers. Even apart of extreme cases of this kind, dismissal and even removal to worse-paid position constitutes infringements on the lives of people so severe that one could call them at least quasi-physical sanctions. The severity of sanctions is not the least cause of the fact that under certain conditions conflicts within industrial organizations may transcend their limit and dominate the scene of social conflict. (Dahrendorf 1959, p.143)

This perspective could explain a number of cases that would seem for an outsider as outright illogical or even unimaginable. Again, I will use examples from Egypt, not only because I am using it as a case in the final two chapters, but also because of the influence of the Egyptian bureaucratic model given the role it played in leading the Arab socialist model in the 1950s and 1960s, and given the influence of Egyptian expatriate labor who spread to a number of Arab countries, especially the oil rich countries during the 1970s. For example, a number of Egyptian newspapers mentioned that when former President Mubarak made a cabinet reshuffle on January 3rd 2010 including the replacement of the Minister of Education, the later did not even know about it until the day the news were announced. On that day, he was actually following his normal routine and meetings. This rather humiliating change sends a message about the political hierarchy not only to the cabinet, but throughout the administrative apparatus at large,

about who is in charge. The message is that the higher echelons do not have to follow standard procedures or worry about subordinates, whatever the statuses of these subordinates are.

The unpredictability of the centralized administrative structures in Egypt and other Arab countries also sends a message that there is no one in the system beyond punishment for rather unpredictable reasons. For example, the then-new Minister of Education in Egypt, Ahmed Zaky Badr, who replaced Yousry El-Gamal in 2010, has taken a number of punitive measures against school headmasters and consultants in his ministry in a way that raised lots of criticisms. One of his first moves was to visit a preparatory school in Helwan governorate. Unsatisfied with the standards of students, the Minister ordered the transfer of the school's administrators, teachers, and workers to El-Menia governorate in the southern part of the country. This move was criticized as not based on standard operating procedures and as sending a message that the southern governorates of the country deserve lower standard administrators and teachers. He also fired the Chair of the Center for Curricula Development, Dr. Yousry Afifi, and 10 consultants in the Center, with a 15-day reduction in their salaries for participating in writing educational books for a number of publishing centers that students use as outside books.

Even more interestingly, the government-owned Al-Ahram newspapers published news on April 8 2010 saying that the new Minister decided to suspend the transfer measures against the Helwan school administration, saying that the transfer should take place in stages so as not to interrupt the educational process. He also declared that he will

revisit the school to make sure that changes have taken place. This change could be attributed to the media campaign directed against the Minister for humiliating the school administration before the students and the local community, but it also reflects a degree of unpredictability and lack of institutional channels for accountability.

Such moves reflect a general tenet of Arab bureaucracies to keep employees vulnerable to higher levels in the hierarchy. This is arguably one characteristic that makes monocratic types of administration favored in Arab countries given the role it plays as a tool of control. This is also why other forms of administration, like decentralization, are either not tried or they fail to reach the critical mass necessary for success thus becoming void of real power-sharing. Therefore, while rulers and politicians never fail to express their impatience with Weberian-style bureaucracies that seem incapable of achieving development, including in the case of education reform, they cannot change the elaborate hierarchies and strict chains of command given the invaluable role they play as control devices. This puts development in contradiction with power, which explains the slow pace of reform in a number of Arab countries, especially where the control devices are much needed given the existence of threats to regime survival. Without legitimacy and acceptance to the system at large, decentralization and flexibility will not be welcome. These measures are more feasible in more benign environments (Ayubi 1995). These differences will become clearer in the final chapter where I compare the cases of education reform in Egypt and Qatar.

The overlapping of jurisdiction also acts as a reminder that the ruler or those at the top of the hierarchy are the final arbiters while maintaining struggles between those at



the lower levels. A certain level of corruption in such systems should be tolerated to ensure the official's loyalty. This keeps the administrators under the constant threat that the authorities might decide to stop this tolerance and start applying the law (Ayubi 1995). This is what happened with the head and consultants in the Curriculum Development Center in Egypt. The fact that these people wrote outside educational books for a number of publishing houses is not a secret since their names are already on these books. But the timing of the decision to hold them accountable was unpredictable.

This situation creates a culture among Arab bureaucrats of reluctance to delegate authority, arguably for fear of being held responsible for actions taken by lower levels that the higher levels in the hierarchy are not satisfied with. A study by Muna (1980) of 52 executives in Egypt, Jordan, Kuwait, Lebanon, Saudi Arabia, and the UAE, he found that 55% of the decisions likely to be taken by these executives is based on discussion with a small selected group after the executive takes the decision, while only 10% of the decisions are based on delegation. Twenty two percent of the decisions are likely to be the executive's own decisions and 13% are joint decisions. Such power conscious executives, who share a culture that flows from the top of the hierarchy toward its lower levels, will find it difficult to accept real decentralization (Ayubi 1995).

This could explain why the decentralization initiatives of Egypt's President Sadat during the second half of the 1970s, which were formulated into law in 1979, died prematurely. The political purpose behind these decentralization initiatives was actually control, not delegating real authority to subnational levels. The food riots in 1977 had focused attention on agriculture and rural development in order to support the food needs

of urban communities. Socio-political unrest in both urban and rural areas in Egypt led the government to increase the status and privileges of the governor while at the same time reducing the powers of the elected local councils, and the Governor was made more accountable to the President, the Council of Governors, and the ruling party. The main objectives of these changes were security related. In other words, the authority of the government was challenged not only in the capital, but in other regions as well, and there was a need to install administrative structures controlled from the center to deal with these threats (Ayubi 1995).

While bureaucratization in the Arab Gulf countries arguably had similar security purposes, the main purpose was to pay citizens, through lucrative government employment, for acquiescence to the state's authority at the cost of tribal loyalties and accepting the supremacy of the ruling tribe. The relationship established between the official and the state is different. The official or administrator knows that the state needs him. On the other hand, he needs a public post so as to guarantee the prestige and contacts it offers. These contacts are necessary for conducting business. By time, the benefits provided by the state surface as more central for the individual's wellbeing, who has nothing to offer to the state more than control over himself and his affiliations. The wages, benefits, and subsidies provided by the state bureaucracy provides those in control of the state apparatus with a source of power that does not require as high level of physical power as in other countries in the Arab world. This explains why, on the whole, Gulf countries managed to rule with less physical coercion than many other governments in the oil-poor Arab states.

This control function of Arab bureaucracies explains the central role of ministries of education. A confluence of factors on the global and local levels, including global competition and the youth bulge in Arab countries, creates incentives for reform. However, the long history of centralization, obsession with control, and limited resources create counter-incentives. This could explain the lack of clarity regarding the supporters and opponents of reform. For example, the Egypt Human Development Report 2004 and El-Baradei and El-Baradei (2004) present hypothetical stakeholder analyses of decentralization of education in Egypt. A comparison of these two frameworks reveals a number of disagreements.

A quick look at Table 23 shows that it is easier to agree on political commitment, but it is less likely to understand the bureaucratic response in formulating and implementing plans. The political leadership is interested in education reform for a number of reasons, including the desire to better the link between education and the labor market, reduce unemployment rates, improve Egypt's ranking in HDI and other assessment of international organizations. This commitment comes in agreement with the support of the business community for achieving better education outcomes to provide competitive graduates for the market. However, it is still difficult to assess the commitment of the political leadership as compared to support. That is; how much of a priority education reform is and the willingness to direct resources, both financial and political, are not easy to agree upon. The fact that we saw signs criticizing the education system and the lack of job opportunities held by the demonstrators in Tunisia and Egypt

Table 23. A Comparison of the Stakeholder Analyses in the Egypt Human Development Report 2004 and El-Baradei and El-Baradei (2004)

Stakeholder	EHDR 2004	El-Baradei and El-Baradei (2004)
Political Leadership	Support	Support
National Democratic Party	---	Support
Ministry of Education	Oppose	Support
Local Administration Units	Support	Supporters of general reform, but potential mixed response regarding decentralization
Public Schools	Support	Support
Teachers	---	Support
Private Tutors	Oppose	Oppose
Parents	Mixed	Mixed
Students/Student Unions	Mixed	Mixed (supporters of reform that satisfy their interests and opponents of reforms that lead to more stress)
Educational NGOs	Support	Mixed
Private Schools	---	Supporter of reforms that allow them more discretion and opponents of reforms that lead to more stringent controls on their performance
Business Community/Labor Market	Support	Support
Textbook Publishers	Support (opportunity for competing with public sector)	---

*Table 23 continued.*

Stakeholder	EHDR 2004	El-Baradei and El-Baradei (2004)
Publishers / Authors of Nongovernmental schoolbooks	---	Supporters of more decentralization efforts that may give them an opportunity to produce books and implement curricula/  Opponents to rapid rates of change in curricula that may lead to rising publishing costs
Higher Education Institutes	Mixed	Support
Donors to the Field of Education	---	Support

tells that the support of the previous regimes in both countries was not translated into committed policies and allocation of needed resources.

The lack of clarity seems to be affiliated with the bureaucracy, mainly the Ministry of Education (MOE) and local administration units. According to El-Baradei and El-Baradei (2004) the MOE has concerns regarding the quality, equity, and efficiency of education which act as drivers for reform. There are also political concerns. These could include the satisfaction of the public and the appreciation of the political top, or the President. The EHDR 2004, on the other hand, perceives that concerns for quality, equity, and efficiency, in addition to political concerns, would push the Ministry to resist decentralization, possibly to maintain its control over processes which guarantees higher levels of technical skills and administrative expertise, and the avoidance of certain

political risks such as the involvement of Islamist elements within a broader education governance structure. The lack of clarity regarding the support of local administration stems from the support of some groups for higher managerial authority and independence at the local level, while other groups are reluctant to pass on authority to lower levels of the administration.

Two other important points should be mentioned regarding the bureaucratic and business interests in maintaining the status quo of education systems in Arab countries. The first is the multi-hat bureaucracy, a term I developed through talking to a number of people in Egypt, and it is possible to apply it in studying the educational and other social policy arenas in other Arab countries given the many similarities among them in terms of political development and the expansive role of the bureaucracy. The term is also arguably applicable to other Arab countries given the dominance of one major party in almost all of them, especially the Socialist republics. It remains to be seen how this situation will change when new constitutions and laws start to emerge in Tunisia, Egypt, and possibly in other countries such as Yemen and Syria.

This term, the multiple-hat bureaucracy, refers to a triangle of dominant actors who change positions and play simultaneous roles through a revolving door between the government bureaucracy, business community, and the ruling party. The same person can wear the multiple hats of bureaucracy, business, and the ruling party all at once. The same individual can be a high ranking bureaucrat in the ministry of education in addition to being a shareholder in a company responsible for the construction and maintenance of school buildings, for example. This company is expected to make huge profits through

the centralized control of the Ministry of Education over school buildings. Part of these profits will be transferred by the multiple-hat individual as contributions to the ruling party, which also controls the Ministry of Education. These contributions, which support the ruling party, will increase the interest of the latter in maintaining the same centralized institutional system.

This multiple-hat phenomenon does not have to be embodied in one individual. The dominant role of the ruling party means that it acts as a door between business, bureaucracy, and the interests of the majority politicians. Businesspeople and bureaucrats meet in the ruling party, and they can exchange hats depending on whether they act as politicians and bureaucrats, politicians and businesspeople, bureaucrats and businesspeople (after retirement from the government), or all three together. This phenomenon is worth of separate studies in individual countries. For now, it is enough to mention it as one possible factor contributing to the maintenance of centralized institutions in the field of education in Arab countries, especially the Socialist republics where dominant ruling parties are the norm.

The need for stronger accountability systems is also clear from the inefficient use of resources directed to the field which are, as mentioned earlier, comparable to the levels of spending in other similar countries. For example, El-Baradei and El-Baradei (2004) point out that waste in school construction and design in Egypt was reported by the World Bank as between 5 and 20 percent.

The hypothesized mixed positions of parents and students could be attributed to decades of a system based on memorization, centralization, and clear input-output

expectations – you put in effort at studying hard from MOE textbooks and invest in private tutoring, you get a degree and possible employment in the formal sector.

Sometimes the opportunity cost of change is high. And both students and their parents are afraid from try-and-error efforts that could lead them to lose important positions in universities or missing a chance for formal employment.

A history of bureaucratic control and centralization are arguably factors that delayed educational reform in the Arab world. These attributes of public administration in Arab countries were partly inherited from colonial times, and partly adopted for their functionality in maintaining social and political control. A favorable political environment where a political elite is determined about reform, independent of groups that traditionally influenced educational policy such as Islamist groups, and have sources of leverage over the bureaucracy are more likely to be able to design educational reforms based on accountability and modern pedagogical techniques.

#### Summary of the Political Stability and Control Box

Like many other sectors in society, political, bureaucratic, and business interests in maintaining social control play important roles in the maintenance of the system. Education in particular plays an important role in maintaining control given its direct effect on new generations.

My main arguments in this section are that understanding the control function over education requires a consideration of the control over actors, curricula, and structures. Control over actors determines policy networks and the inputs contributing to



reform. Generally speaking, one could argue that the central government has been in control in most Arab countries, not only over processes and structures, but also over decentralization efforts. The definition of national security and relations with Islamist groups play important roles in controlling the pace and nature of reform.

Bureaucratic and business interests should also be addressed in any attempt to understand policy making and implementation of reform measures in the field of education. These topics could be addressed in individual case studies. The main point here is that it could be expected that the ideas and interests that were embodied in centralized institutions will be very difficult to change especially that they were able to shape the values and interests of the other two main groups of actors in the process: parents/students and schools/teachers. I turn to these groups next.

#### Other Social Actors

Parents and students. The incentives directing parents and students in the field of education could be discussed under the following subheadings.

#### Labor Market Signals

In both the socialist and rentier states, or the semi-rentier and rentier states, the economy is characterized by a high share of public sector in total employment, a greater degree of job protection in the formal sector, and a centralized and highly subsidized system of education. This makeup is an important source of signals that value rote memorization and obtaining a university degree sometimes regardless of how the degree

aligns with what the individual wants to do eventually in his or her life (Djavid Salehi-Isfahani and Dhillon 2008).

For parents and students, the approach to education is tightly related to the labor market. In the years following independence for the socialist republics, employment guarantees for university graduates created higher stakes in formal education and formal employment (Richards and Waterbury 2008). This system sent the wrong signals to parents and students. Assaad (2005) argues that the longstanding policy of the Egyptian government to guarantee employment in the government for upper secondary and university graduates has distorted household decisions as to the level and type of human capital to acquire and has resulted in the entrapment of significant portions of the human capital in unproductive government employment.

Although one of the characteristics of unemployment in the region is that it is far higher for university, secondary, and intermediate school graduates than for those with only primary education (Shafik 1994), government jobs are still highly sought given higher job protection and other privileges. This could be attributed to the fact that even though unemployment decreased in a number of Arab countries after the beginning of structural adjustment programs, the majority of the new jobs were created in the informal sector. The World Bank estimates that the percentage of informal sector workers in the total nonagricultural work force range from 32% in Syria to 55% in Egypt (The World Bank 2004). As a matter of fact, the informal sector became an important avenue for employment in the era of structural adjustment. But wages in the informal sector are likely to have fallen as the formal sector became increasingly unable to absorb new labor

market entrants, in addition to less job security in the later sector (Abrahart, Kaur, and Tzannatos 2002). This could explain why parents still perceive government jobs as the “good” jobs. The rise in informal employment could explain part of the absent link between education and economic performance in the region given their inherent ills: low productivity and meager earnings (Fergany 2001).

The value of public employment remained dominant regardless of the privileges of public sector employment relative to other sectors. This could be attributed to the perception, created over history, of the possibility of social mobility through education. However, this might not be the case since the 1970s. Political sociologist Saadeddine Ibrahim found in a survey of three generations in Egypt – father, respondent, and son – that the middle generation enjoyed greater, mostly upward, mobility than the other two generations. Ibrahim concluded that Egypt’s stratification system reached its maximum between the mid-1950s and mid-1960s (Suliman 2000). Given the importance of a university degree to achieve better opportunity of employment in the formal sector, the high stakes examinations governing the transition from one educational stage to the next, especially the high school diploma, became of special importance.

### Labor Market Structures

Another issue often referred to regarding the relation between labor markets and education is the issue of the rigidity of labor markets. The idea here is still the same: the labor market is giving the wrong signals to parents and students. The argument of labor market rigidity states that the private sector cannot act freely in hiring and firing, and

choosing people according to their skills rather than their degrees, due to government regulation, which forces the private sector to follow the same hiring techniques as the government sector (Middle East Youth Initiative 2009).

The argument is that the labor market has been weakened by labor regulations that preclude firing staff for any reason other than grave misconduct. These regulations restrain the private sector from seeking talent (Galal 2002). In other words, adherence to labor laws and regulations leads to reinforcing public sector signals for skill formation. The high cost of firing precludes the private sector from rewarding productivity and skills since the costs of risking to hire a skilled person, based on volunteer work rather than university degree for example, are very high. It becomes safer for the private sector to hire based on educational degrees, just like the government, to avoid the risk. The argument goes that the absence of a volunteer culture in the Arab world is related to this labor market rigidity. Since volunteer work is not appreciated in a job application as the primary importance is attached to formal diplomas, following the classical approach of the governmental sector, Arab youth do not pay much attention to it (Middle East Youth Initiative 2009).

### Social Norms

Education was a central value in the national project of Arab socialist countries. But as explained above, limited resources and population growth practically emptied the idea of equal opportunity from its meaning. What remained was blind equality: the traditional focus on grades that allow one to pass from one educational level to another,

thus guaranteeing the continuation of free education and the possibility for formal sector employment. Centralization and systematization of the educational process became an integral part for guaranteeing this kind of blind equality.

This issue is compounded by social norms allowing for nepotism and relegating educational achievement to a secondary consideration at best. *Wasta*, which is Arabic for connections or, literally, a middleman, became a source of frustration for educated young people in the Arab world. Young Arabs in a number of countries in the region complain bitterly that they are qualified for jobs, but it is informal networks, or *wasta*, and connections which really matter (Singerman 2007a). This problem is even more compounded by the education policy itself, which produces graduates who find it increasingly more difficult to find a place in the private sector since they do not have the required skills (Djavid Salehi-Isfahani and Dhillon 2008). With the reduction of the value of education in social mobility and the perception that, after all, finding a job will dependent on the good offices of a middleman, students became less motivated to excel in education or do more than what are the minimum requirements for passing between educational levels. This usually reinforces memorization and private tutoring.

In rentier states, a norm developed regarding the link between education and life achievements. The extensive welfare state arguably reduced the value of work. A sort of a public culture has developed, especially through the early years of the oil boom, that Minnis (2006) calls the rentier mentality, a term that refers to the disjunction in the popular mind between work and education and between achievement and reward. Amuzegar (1999) argues that traditional work ethics in the Arab Gulf countries were

replaced by a welfare state mentality. This literature argues that this rentier mentality is a causal factor in the poor educational performance of Arab students. Oil wealth in this sense breaks the work-reward causality.

#### Schools/Teachers

Schools. The school is the final and most central arena of educational policy. It is the point of delivery, where policies, ideas, perceptions, and aspirations of state and society meet to provide educational output. This output can be of high or low quality, directed to market needs or to serving unproductive jobs, fulfilling students' aspirations for development or just for obtaining a diploma.

The centrally planned education systems that spread across the Arab world after independence, which were typical of developing countries during these times, had direct effects on both schools and teachers. Schools became tied to direct, and at present obsolete, methods of control from the ministry of education and its local bodies that are technically but not actually decentralized (The World Bank 2008). This centralized model fails to motivate teachers because their salaries are low and follow a rigid civil service code. Their career development is not dependent on student achievement. The bureaucrats, like teachers, have little incentive to efficiently monitor, regulate, and improve the education process since their salaries are low, their performance difficult to assess, and their careers are not linked to measureable achievements. The incentives of teachers and schools thus become directed to responding to superiors at the center than to

the needs of the direct beneficiaries of the education process: students and parents (Galal 2002).

This centralization marginalizes schools. Schools are often controlled by the government, restricting freedom of action in schools and reducing incentives for achievement. A study on Jordan, for example, found that schools are marginalized, and that major educational policies, decisions and processes are managed centrally, including funding, staff recruitment, curricula, textbooks, and regulatory tools. This situation, however, has been improving since the 1980s and early 1990s (Masri 2004).

Teachers. An interesting point to note about the development of administrative structures in the field of education in the Arab world is the spread of influences from one country to another. This has been facilitated by shared language and cultural heritage. As mentioned earlier, Egypt and other Arab countries sent delegations to develop education in the Gulf region before the independence of the later. After independence, and especially after the oil boom of the 1970s and early 1980s, Gulf countries relied on teachers from Arab countries, notably Egypt, at all stages of education. While this importation of teachers helped develop the education systems in these countries and satisfy the lack of experienced teachers in them, in addition to being important source of income for labor exporting Arab countries, these teachers from fellow Arab countries came in with their teaching methods developed over years in their home countries, which are based on rote memorization and teaching to the exam. While many of these teachers were replaced by young natives, this younger generation of teachers was often marginalized by the older cadre of bureaucrats and teachers who follow the centralized

policy and guidelines of the Education Ministries. In addition to these factors, the teaching profession is not attractive to Gulf youth, especially given its relatively lower wages. This does not entice talents to enter into this profession (Samman 2003).

The large number of teachers in many Arab countries is a reflection of the centrally-planned and labor-intensive education systems established after independence. Quantitatively, successive educational reforms in the region have attempted to ensure that schools are equipped with adequate numbers of qualified teachers. Teaching supply and conditions of teacher service are largely controlled by the government. The supply of teachers in the MENA region has either stabilized or continues to grow, after a period of rapid increase during the 1980s which was followed by a period of leveling or decline in enrollment rates. Only in a few countries has the number of teachers declined in line with the rate of student enrollment (Chapman and Miric 2009).

Although the UNESCO Institute for Statistics (2009) predicts that Arab countries will face shortages in Primary teachers by 2015, these shortages are generally average in international comparison. Figure 10 shows UNESCO's projections. This data hides important regional variations. Four Arab countries are projected to have severe shortages: Djibouti, Palestine, Sudan, and Yemen (UNESCO Institute for Statistics 2009).

As pointed out in Chapter 1, Arab countries generally have favorable student-teacher ratios. In Jordan for example, the average student-teacher ratio has declined from 39:1 in 1970 to about 20:1 in 2004. This ratio has also fallen in urban areas in Egypt from 23:1 in 1993 to 20:1 in 2000. Similar examples could be found in other countries such as Libya, Yemen, and Tunisia. But this theoretically favorable situation was not reflected in



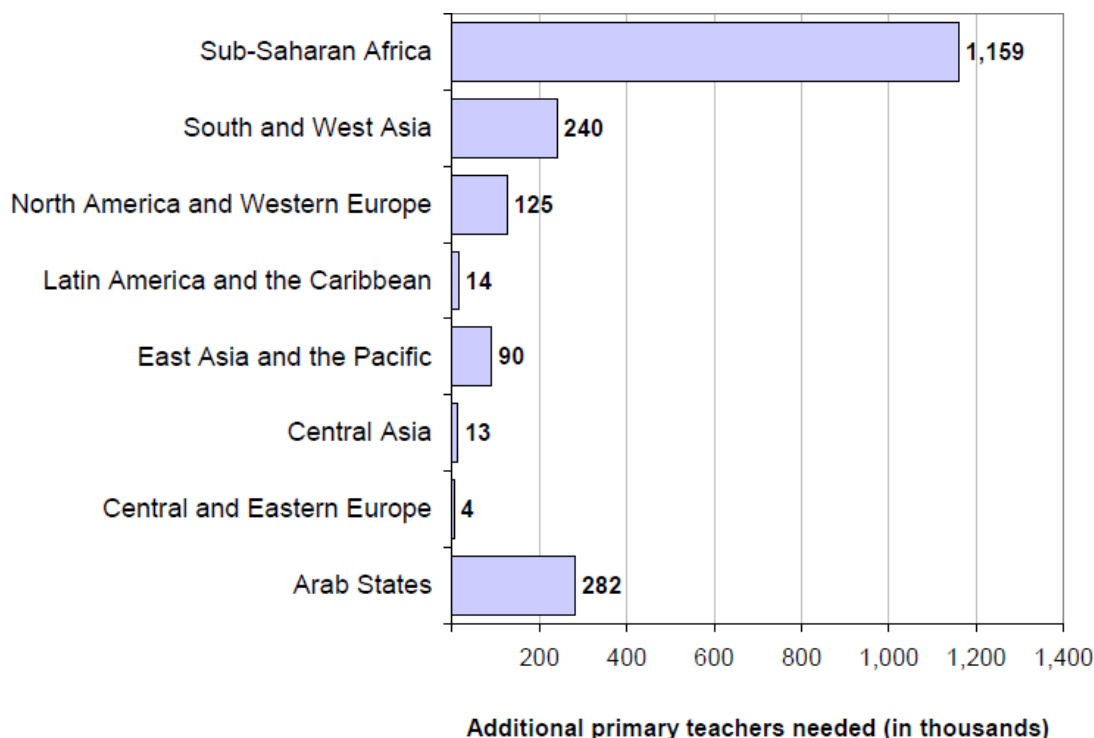


Figure 10. Increase in the number of teachers at the primary level needed by 2015 by world region.

student achievement (Chapman and Miric 2009). This could be attributed to a number of factors. First, available figures on student-teacher ratios could be misleading given the large size of bureaucracies in the Arab world. For example, in Egypt, a significant number of the teaching staff may actually be involved in administrative functions. The non-teaching staff rates in Egypt are high by international standards – 0.78:1 as compared to 0.58:1 in OECD countries. The increase in the number of teachers could also be attributed to the high unemployment rates among university graduates (M. El-Baradei and El-Baradei 2004).

Another factor contributing to favorable teacher-student ratios in Arab countries is teacher qualifications. The period of rapid quantitative expansion increased the need for teachers, and some countries had to increase their teaching staffs by hiring unqualified teachers. For example, in Jordan until 1988, a community college diploma was enough for teaching in the nine-year basic education cycle (Masri 2004). Chapman and Miric (2009) present characteristics and requirements for teachers in several Arab countries based on individual World Bank country reports and other documents (see Table 24).

Generally speaking improvements in teacher training in Arab countries have not, at least so far, been conducive to student learning (Chapman and Miric 2009). This should bring us to the central point of this discussion: the issue of incentives.

Incentives that encourage the desired behavior, which refers here to transferring knowledge and skills, include salaries and remunerations. Teachers' salaries in the MENA region occupy high proportions of GDP. But studies in a number of countries show that the teachers tend to perceive their salaries as low. For example, Algerian teachers see themselves as underpaid whereas the general public perceives them as overpaid. Most citizens in Tunisia and Oman perceive teachers as well paid. Teachers in Egypt, Yemen, and Iraq complain that they are more poorly remunerated than less educated workers such as taxi drivers. Despite the relatively high investments in salaries, salary increases remain tied to seniority in most Arab countries, which diminishes their role as incentive tools (Chapman and Miric 2009).

The incentives governments are trying to create through special cadres for teachers and training and education requirements are met by perverse incentives

Table 24. Teachers' Education Requirements and Characteristics in Selected Arab Countries

Country	General requirements/ teacher characteristics	Primary level teacher requirements/teacher characteristics	Secondary level teacher requirements/teacher characteristics	Quality of teacher training institutes/ other institutes
Djibouti	High formal standards	-	University degree of 2 years of Math or French required	Teacher training institutes highly selective
Algeria	New standards being established; current level of training low	-	New requirement: Baccalaureate + 5	-
Egypt	<u>Mixed data</u>  World Bank report – inadequately qualifies at primary level, due to previous policy allowing teachers with no tertiary education; almost half of teachers with tertiary education have no pedagogical training.  UNESCO report – almost 100% of primary teachers have received pedagogical training	-	-	-

Table 24 continued.

Country	General requirements/ teacher characteristics	Primary level teacher requirements/teacher characteristics	Secondary level teacher requirements/teacher characteristics	Quality of teacher training institutes/ other institutes
Tunisia	Most teachers in primary have a BAC (baccalaureate degree), and large proportion of secondary teachers have post-BAC additional years of schooling; UNESCO report – more than 90% of primary teachers have pedagogical training	In 2002, 9.1% of teachers had a primary school certificate; 6.0% a lower secondary certificate; 60.8% a BAC, and 24% other	In 2002, 6% of teachers had a lower secondary certificate; 48.3% a BAC, and 45.6% other	-
Yemen	Low standards	Fifty percent of teachers in primary did not finish secondary education	-	-
Jordan	Not clear, prevalent use of contract teachers (12% of the teaching force) to fill teacher quality gaps; new standards in the 1990 s require teaching staff to have a first university degree	-	-	-

Table 24 continued.

Country	General requirements/ teacher characteristics	Primary level teacher requirements/teacher characteristics	Secondary level teacher requirements/teacher characteristics	Quality of teacher training institutes/ other institutes
Bahrain	The majority of teachers (both Non-Bahraini and Bahraini) have at least a Bachelor's degree; since 183/4, only bachelor degree holders eligible for teaching job – a pretest required since 1994/95	-	-	University graduates who hold noneducational qualifications may seek a one-year postgraduate diploma in education

Note: Reproduced from Chapman and Miric (2009).

ingrained in the system. Arguably the most critical incentive system facing teachers is presented by private tutoring, a practice that has become pervasive as a result of examination systems and the centralization of curricula and textbooks.

Private tutoring represents a critical source of income to supplement teachers' perceived poor salaries. These private lessons are directed toward the national exams which determine educational advancement and hence strengthen "teaching for the exam," without contributing to the learning process and experience. Teachers as a result started lowering the quality of in-class instruction and formal teaching in order to increase the demand for private tutoring (F. H. Sayed 2006). This is why the Egypt Human Development Report 2004 distinguishes between the interests of schools and teachers regarding decentralization of education. Schools are expected to support decentralization to gain more autonomy. Teachers, on the other hand, are assumed to be resistant to decentralization given their interest in national curricula and centralized exams which facilitate and encourage the practice of private tutoring (United Nations Development Programme and The Institute of National Planning 2004). Decentralization could mean more control by parents and school administrations and a variety of textbooks which make the development of summaries for exam material useless.

#### Conclusion: Self-Reinforcing Systems of Education in the Arab World

It is be difficult to speak about one educational system in the Arab world. However, similarities in terms of political and social structures, governance systems, and historical developments make this discussion feasible. In addition, mutual influences

among educational systems in Arab countries are prevalent. As discussed above, the educational systems in a number of Arab Gulf countries were based on expatriate teachers and administrators from other Arab countries, mainly Egyptians, Jordanians, and Palestinians. The influence of political Islam, and its effect on educational systems and curricula, is a common factor in many Arab countries.

This chapter is a reading of the literature that discussed the reasons behind the development of memorization-based educational systems in Arab countries through a discussion of the incentives guiding the state, parents/students, and schools/teachers, and how these incentives were embodied in formal and informal institutions through history. One goal of the chapter is to set an organizational framework for future studies aiming at analyzing the situation of education in individual countries or make comparisons in terms of structural changes and reform measures. I used the same group of variables as in Chapter 2: History, exogenous variables (oil), and political stability. The reason is that these variables tell us about the foundations of institutions, the regime time horizon, and the socio-political context for the provision of public goods generally. My purpose is to provide an explanation for the lack of a relation between education and economic performance in Arab countries, an observation that was found in previous literature and the analysis in Chapter 2 has proven.

From an economic or market-based perspective, one could highlight three main factors in the literature that contribute to this outcome. The first is related to the labor market. The state is still the major employer in many Arab countries. In addition, structural adjustment policies created new jobs that were mostly in the informal sector.

The benefits, security, and social prestige of government employment gave it continued appeal. However, empirical evidence shows that employment in the government sector does not contribute as highly to economic growth as employment in the private sector.

The second economic or market-based explanation for the absence of a relation between education and economic performance in the Arab world is related to the characteristics of unemployment, which tends to be inversely related to the individual's level of education. This brings us to the argument that investment in low-quality education could actually be a sort of wasted investments. The solution is not to invest less, but rather to target investments to primary and secondary education and to build structures that guarantee accountability and skill creation based on the inclusion of relevant social actors.

There is also a need to untie the knot of examination systems, outdated curricula and teaching methods, and centralized institutions that contribute to memorization-based systems in Arab countries. This chapter does not attempt to address where the starting point for this change could be, but it attempts at understanding the developments that led to existing educational systems and outcomes from historical, political, and social perspectives.

In the discussion of history in this chapter, one notices a number of characteristics that continued through historical periods. The *first* is the importance of religion as a foundation of education in a number of Arab countries. Institutions such as *kuttab*s, mosques, and religious schools played important roles since the Middle Ages in spreading literacy among the masses. With the development of nationalistic movements,



a new track of secular education developed. This branch was represented in schools and curricula that were layered over previous religious educational institutions. As discussed in the case of Egypt, one outcome of this layering was encouraging memorization and centralized exams. Memorization was the only way to cover the vast material, and centralized exams aimed at unifying certain standards for the educational system and controlling the transition from one education stage to the next.

The *second* characteristic we note about the development of education systems is their continued close affiliation with the state. With the advent of Western colonialism, the educational system aimed basically at satisfying the needs of staffing the administrative apparatus and fulfilling the needs of the occupier both socially, through creating and sustaining elite classes as protégés of the occupation, and economically, through creating the administrative structures needed for extracting resources from the occupied countries. Little attention was paid to linking education to the needs of the market, and the financial resources dedicated to education fell considerably. Colonial authorities also paid special attention not to allow education to act as a door for empowering anti-colonial forces and sentiments.

When the time of independence came, around the 1950s and 1960s, the expansion of education was inevitable. Education attainment was low and the developmental plans needed to rely on a base of educated labor force. In addition, and given a history of education discrimination based on social class, religion, and race during occupation, expanding educational opportunities became an important pillar of the social contract after independence especially in the socialist republics. Despite the attention these

countries paid to education, the drive for equal educational opportunities was in fact emptied from its meaning. Population growth and foreign wars inflicted financial burdens that the state was not able to satisfy. The continued expansion of education came at the cost of reduced quality. There were not enough buildings or trained teachers to respond to this expansion. Subjects such as math and science suffered the most due to the lack of resources. Their teaching, therefore, turned to the easier and less expensive method: memorizing facts, about the components of a plant cell or formulas about the speed of light, for example, instead of conducting experiments and framing answers to unstructured questions.

With oil wealth came the expansion of these educational methods through Egyptian, Jordanian, and Palestinian teachers, in addition to teachers from other Arab nationalities who travelled to work in the Arab Gulf. Oil wealth created more interest in government employment in the Gulf, and arguably also enhanced the interest of Arab youth in neighboring countries in obtaining an educational degree in order to travel and work in the Arab Gulf, which was booming during the 1970s with the rise in oil prices.

To summarize, we could conclude from our discussion of history and oil that the interests and context of the Arab state's decision making toward education is shaped by a history of centralized institutions and crowded curricula of both religious and secular science. The state is also controlled by a social contract which perceives a diploma, more than skill-based education, as part of the rights of the citizenry.

The discussion of the role of political stability in the maintenance of outdated educational systems despite changes in economic and political fronts focused on two

points: the definition of national security and the control function of education. One important threat for the survival of political regimes in a number of Arab countries came from Islamic groups, both violent and non-violent groups. Countering the threat of these groups in countries such as Egypt and Syria delayed institutional reform. Bureaucratic and business interests support the maintenance of this control.

The control over actors, curricula, and institutions in the field of education is another way of looking at the political and social context for reform. Despite the dominant role of governments, ruling parties, and centralized institutions, mainly ministries of education, control seems to go both ways. That is, both the society and governments vie for control. Religious conservatism and the conspiracy theory mentality are but two manifestations of how control over curricula and institutions is supported by influential social forces.

This control is encouraged by the fears of parents/students from the costs of reform that could lead to the disruption of an ages-old system without direct benefits on the job market. Teachers, while possibly interested in gaining more discretion, are interested in maintaining the status quo which base education on memorization and national examinations and hence allows them a huge source of income through private tutoring which aims at presenting the complicated textbooks in “memorizable” and exam-oriented formats. Schools are under the direct control of central bureaucracies, which are assumed to be interested in maintaining their control and avoiding the pitfalls that could result from lack of needed skills on the school level.

In sum, the memorization characteristic of education systems in Arab countries is a main ingredient and outcome of a tightly knit system that developed through history with a dominant role of the state in society at large. This system appears to be self-reinforcing not only through centralized control by governments, but also through the buy-in of other important groups in the system, mainly parents/students and schools/teachers. This meeting of goals among the main actors supports the preservation of outdated systems of education which result in adding more people to the unemployment rosters and contribute little or nothing at all to economic reform. These systems are composed of centralized institutions, curricula, examinations, social norms and expectations. Reform of examinations, curricula, teaching methods, and centralized institutions could all be possible approaches for reform individually or collectively. The development of memorization-based systems of education in Arab countries is presented in the following points based on the analyses in this chapter.

Attributes of the Memorization-Based Education  
Systems in Arab Countries and Factors  
Contributing to their Development

The main attributes of memorization-based education system in Arab countries can be summarized in the following points. These attributes are the focus of this chapter and the coming analysis that focuses on reform.

- National, High Stakes Examinations
  - Size
  - Equality (Social Contract)
  - Control over curricula

- Curricula
  - Nation-building
  - Religious Content (Religious Groups, Regime Alliances)
  - Limited Resources (especially affecting math and science)
- Teaching Methods (based on rote learning)
  - Limited Authority for Teachers
  - Teaching to the Exam
  - Limited Popular Accountability
  - Limited Resources (especially for teaching math and science)
  - Bureaucratic Inertia (limiting central control)
  - Government Employment as a Goal (less attention to skills)
- Centralized Institutions
  - Political Control
  - Bureaucratic Control
  - Business Interests

CHAPTER 5  
REFORMING INCENTIVE STRUCTURES:  
A CONCEPTUAL FRAMEWORK

Introduction

Metaphorically, the purpose of this and the coming chapter is to add flesh to the skeleton that I have been building so far. This skeleton is composed of variables that help us explain the variation in social and economic outcomes among Arab countries, and the reasons behind the observed shift in leadership and innovation in the Arab world to small Arab countries on the outskirts of the region such as Qatar and the UAE. The main thesis is that there are factors pushing for reform, such as globalization and economic openness, while there are other factors that pull toward stagnation, such as the political regime's stability and drive for control.

I used the relationship between education and economic performance as a lens to explore the ability to be a fast mover for change, building on opportunities and managing obstacles. In Chapter 1 we saw that there is limited-to-no relationship between education and economic growth in the Arab world. In Chapter 2, we examined this relationship empirically, and concluded that smaller and stable countries are growing faster, but we still found no relationship between education and economic performance. This final result agrees with previous empirical research which examined this relationship among Arab countries.

In Chapter 3, I provided a framework for reading the literature that addressed the relationship between education and economic performance in the Arab world. In conformity with the framework I used in Chapter 2, my reading of the literature which observed the role of education in Arab countries is based on history, exogenous variables, and political stability. This reading attributes the development of a memorization-based system that has little or no contribution to economic growth to factors related to the historical development of education in the region under foreign occupation, the relationship between religious and secular education, socioeconomic developments in the region, and political stability and other business and bureaucratic interests.

So far the skeleton has been established through observations, quantitative analysis, and developing a lens for reading the previous literature. In order to add flesh to this skeleton, I show in this chapter how history, exogenous variables, and political stability help determine the shape and implementation of education reforms which can act as basis for long-term economic growth. In this sense, education reform is perceived as a government initiative that is shaped within historic, socioeconomic, bureaucratic, and political contexts. Hence, I bring into the picture the opportunities and obstacles facing governments in the region, and elsewhere, in changing formal and informal institutions that guide decisions and policies in a particular field.

I will use Egypt and Qatar as case studies. This choice is based on the differences between these two countries in terms of a number of variables that are central to this study, such as size, population, history, and political stability. They also represent two different models of development in the region: the Arab Socialist model which prevailed

in Egypt during the 1950s and 1960s, and the rentier state model in Qatar. Despite these differences, these two countries share a number of similarities as is the case among other Arab countries. The education system in Qatar was based on the Egyptian model since its early beginnings in the mid-20<sup>th</sup> century, until the recent reforms that started in the early years of the third millennium.

My purpose is to highlight the differences which could shed light on the reasons behind the shift in innovation to smaller countries on the outskirts of the Arab world. In this sense, this effort could be taken as a step toward creating a categorization or typology for understanding the potential and obstacles leading to varying speeds in reform and innovation. The results could be generalized beyond the region, except that this generalization requires replicating this framework in other regions.

The lens I use to explore education reform efforts in both countries is the World Bank's conceptual framework for examining education quality assurance developed initially for Chile. This framework, as will be explained later, is based on two premises. First, there is a number of quality assurance functions that need to be defined and assigned to participants in the education system. Second, there has to be a separation between policy making and oversight functions. The choice of this lens aims mainly at minimizing the effect of financial resources to get a better grasp of the effects of history, exogenous variables, and political stability. This framework mainly focuses on the characteristics of quality assurance, including the separation between policy making and oversight functions. The role of financial resources for institutional building is still present, for sure, but it is clearly minimized.



It is important at this point to mention briefly what I will not find, although it might seem a bit too early to elaborate on this point. I cannot find, through this framework, whether education reform in either of these two countries will lead to long term economic growth. I will not evaluate the effect of these reforms on student outcomes, since it is too early to evaluate the outcomes based on these reforms anyway, given that the shift toward a focus on quality is a product of the 1990s in the Arab world at large, and Qatar's Education for a New Era (ENE) has only started in the early years of the new millennium. I also cannot judge the sustainability of reform based on this framework. However, building an effective quality assurance system is the first step toward achieving sustainable growth based on human capital and improving the quality of available human resources.

This chapter will start by summarizing the lessons learned from reading the literature in Chapter 3, focusing on the factors sustaining memorization-based and unproductive educational systems in Arab countries. I then move on to explore the imperatives of education reform, which act as counterbalances for maintaining the prevailing educational systems and pushes for reform. After exploring these imperatives, I explain the reasons for choosing my country cases, review their educational achievements and shortcomings, and discuss factors in their socioeconomic and political contexts that encourage or deter change. Finally, I discuss the conceptual framework that I will be using and place the educational systems in both countries within it. In the next chapter, I will apply this conceptual framework in exploring the recent developments in their educational quality assurance systems.

### Incentive Structures: A Summary

The relation between education and economic performance in Arab countries could be understood from two perspectives: the supply side and the demand side. The supply side refers to the educational systems as defined by policy making institutions in this field and the points of delivery – most importantly the school. The demand side, on the other hand, refers to the labor market. My focus on the incentive structures of the main actors involved in the field of education required focusing on both dimensions. In this chapter I shift the focus to be predominantly on the supply side as a major arena where we can infer the willingness and ability of the government to initiate and sustain reform. The labor market is central for complementing the other half of the picture given its central role in determining the incentives of parents and students. I choose to leave this market dimension to labor economists, while focusing on the side where government interference can make a difference in affecting incentives. Through this focus I aim to highlight how context could affect governmental programs, institutional reorganization, and implementation capacity.

At this point, it is important to review the structures of incentives in the memorization-based educational systems and how they combine to maintain it although it seems that this maintenance is against the interests of almost all the actors involved. I start by graphically presenting the incentives which combine to create and sustain the system in Figure 11.

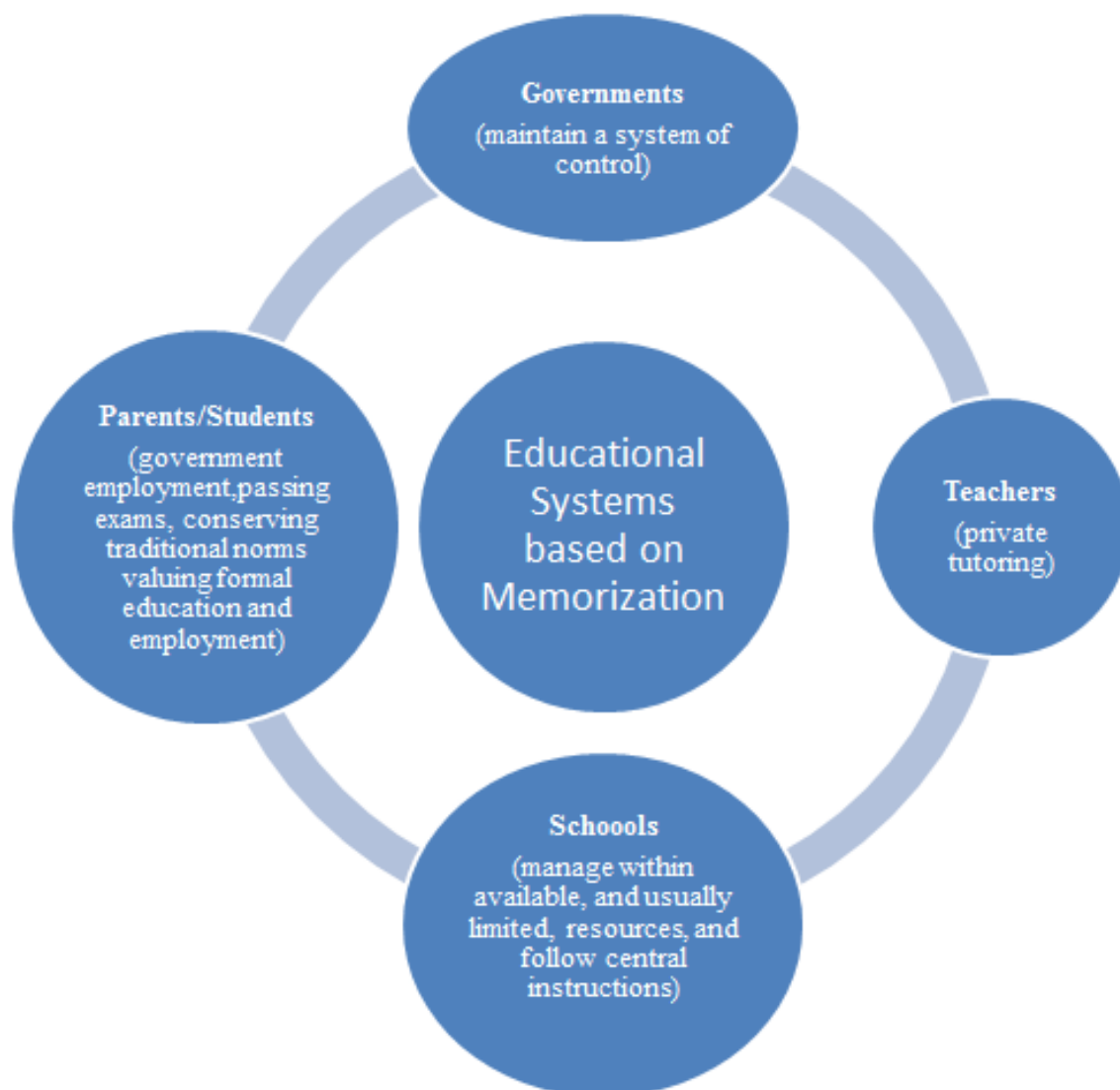


Figure 11. Interests and incentives leading to memorization-based educational systems in Arab countries.

The first thing to note about Figure 11 is that it intentionally left out the labor market. My argument is that the liberalization policies that took place in a number of Arab countries did not have a direct effect on the incentives of parents and students, given the rigidities of the labor market which slowed down the expansion of the private sector. On the other hand, the liberal economic reforms were not matched by an

expansion of the abilities of schools to respond to the demands of the labor markets. Instead, they remained subject to centralized governmental policies and directions.

This system is self-sustained and reproduced although it clearly harms the majority of the societal actors involved. On the one hand, governments are expected to be interested in an effective education system that provides students with the skills necessary to join the labor market in order to reduce unemployment, enhance economic growth, reduce social tensions, and fight extremism, in addition to supporting their own legitimacy. On the other hand, parents and students should be expected to be interested in gaining the skills that bring rewards in the labor market.

But the maintenance of a memorization-based system despite its shortcomings, implies that the incentive structures in the field of education in Arab countries, built over generations, have gained control over the actors involved in the system and became ingrained in their daily lives, values, and expectations.. These shortcomings are reflected in scores on international standardized exams and surveys showing the business community's complaints regarding the poor skills of graduates. The disruption, and possible social unrest, that could result from an overhaul in examination and textbook policies, for example, is arguably an important consideration in planning education reforms. This possible threat, however, should be balanced against the need to develop human capital in order to cope with the developments in the market economy and the global environment at large. The maintenance of the old systems led to a situation where we find that privatization and other economic structural changes have failed to solve the unemployment problem in the Arab world (Acedo 2002).

Breaking this cycle which links the interests of governments, parents/students, and schools/teachers toward maintaining an educational system based on memorization is not impossible, and educational reforms in a number of Arab countries such as Jordan and Qatar attest to this. Now with the economic changes taking place toward the free market economy starting the 1990s in a majority of Arab countries, reforming this incentive structure through reforming educational systems should be a priority if these countries want to avoid being marginalized in the global marketplace, attract investments, establish sustainable economic growth, and counter social tensions and extremist trends.

### Imperatives of Change

Despite the above mentioned discussions of the factors sustaining outmoded education systems in Arab countries, there are arguably important factors pulling in the direction of change and reform. I discuss these factors below, paying special attention to Egypt and Qatar.

#### The Youth Bulge

Arab countries have youthful populations. The age group between 15 and 24 constitute the largest age group among Arab populations, representing more than one third of the total inhabitants of the Arab region and approximately 20 percent of the populations in Egypt, Iraq, Lebanon, Libya, Morocco, Oman, Sudan, Syria, Tunisia, Yemen, Jordan, Algeria, and Saudi Arabia (UNDP 2010). Whether this is a blessing or a curse depends on a number of factors. Governance structures which allow for channeling

the efforts of young people in productive social, political, and economic activities are central to determining the effect of this age structure.

A youthful population is a blessing when it is efficiently used as a productive asset. This phenomenon is known as the “demographic dividend.” The economic growth experience in East Asia, as well as in Ireland, is an example of how countries could utilize their youth bulges as drivers for strong economic outputs. The foundation for this dynamic was creating jobs and improving educational opportunities through stressing equity and quality education (Beehner 2007b).

However, the situation in Arab countries shows that the youthful population was more of a burden than an asset. The youth bulge in the Arab world has generally been a source of pressure on education systems, labor markets, health care, natural resources and infrastructure (Abdou, Fahmy, Greenwald, and Nelson 2010). The problems arising from the youth bulge in the Arab world are usually discussed in terms of youth exclusion and political instability. These problems, which could be attributed to the inability to use youth as productive assets, result from inefficient educational systems and resulting unemployment.

Youth exclusion acquired attention in the literature that addressed the political sociology of the Arab region, especially regarding such issues as employment, earnings, and marriage (Assaad and Barsoum 2007; Middle East Youth Initiative 2009; Singerman 2007a). Exclusion is manifested in the continued dependency on family networks of potentially productive youth. As a result, the region sacrifices billions of dollars in the form of lost wages and weakened productivity. Chaaban (2008) estimates the economic

costs of youth unemployment, school dropout, adolescent pregnancy, and early motherhood in Arab countries. He finds that the aggregate economic costs of youth exclusion are as high as US\$53 billion in Egypt (17% of GDP) and US\$1.5 billion in Jordan (7% of GDP). It is important to note here that these estimates do not even account for the social and psychological costs of exclusion, which means that they could be underestimating these costs.

There is another dimension to the youth “curse” – the one related to domestic and regional security. There is evidence that exceptionally large youth cohorts are sources of political instability and/or violence (Urdal 2006). One explanation for this is that a large population of young people results in a large reservoir of potential recruits for radical organizations (Beehner 2007a). Unemployment and dysfunctional educational systems are important factors in determining the possibility that a youthful population will turn into a reservoir for instability and violence.

Youth unemployment rates in the Middle East are high. They range from 20 to 30 percent in most countries in the region but they exceed 45 percent in some countries such as Algeria and Iraq. Young people with secondary and post-secondary education face severe difficulties in securing employment mainly due to skills mismatches and waiting for public sector jobs. The average duration of unemployment spells for youth with university or vocational education can be measured in years in Arab countries (Middle East Youth Initiative 2010).

In an Op-Ed in Dallas Morning News, Coleman (2006) describes the dominance of young people in Arab countries as a “youthquake,” and argues that jobs are the main

challenge for facing the potential problems resulting from a youthful population. This is a result of the unemployment problem among Arab youth, who are hit hardest by unemployment in the region. The mismatch between education outcomes and the skills needed in the labor market is an important factor contributing to unemployment, which feeds into the unfulfilled expectations of Arab youth; hence increasing the possibilities of political instability (I. Coleman 2006).

Fergany (2008) argues that one important reason for youth marginalization in the Arab world is dysfunctional educational systems. Therefore, education reform is an important avenue to reverse this trend and contribute to individual and societal development. Governance reform should include a central role for the state in guaranteeing education opportunities for all levels of income, extending to quality higher education. This reform should also include the private and non-profit sectors, provided that governance structures to guarantee quality and efficiency are established on the national and local levels (Fergany 2008).

Dysfunctional educational systems raise expectations among youth while allowing them only limited opportunities to gain productive employment in the private sector, which has become the vehicle of rising importance for economic management in most Arab countries since the 1990s. Dysfunctional educational systems lead to frustration resulting from considerations of equity and opportunity that, in the absence of effective governance systems, contribute to exclusivity and limiting social mobility by depriving poor classes and women from access to meaningful educational and employment opportunities. Unemployment, however, could not only be attributed to the



lack of skills among graduates. The distortions of labor markets in Arab countries increase unemployment and reduce the productivity of those employed.

### Labor Market Distortions

Flexible and dynamic labor markets which reward skills and make the best use of available talents are indispensable for sustainable youth inclusion, economic growth, and contribution to the global marketplace. Labor markets in Arab countries have suffered from a number of attributes that made them generally unable to achieve their potential in terms of value added and economic growth. Major among these attributes is the expansive role of the state as an employer and producer. Employment guarantees for high school and university graduates spread among Arab countries and, as explained earlier, educational methods and curricula were geared toward producing public sector employees. This could also explain why the majority of Arab students specialize in social sciences and humanities – fields which have traditionally been conducive to public sector employment (Dhillon, Fahmy, and Salehi-Isfahani 2008).

Distortions in Arab labor markets are usually discussed along a number of dimensions. First, there is the argument about labor market rigidity; that is, excessive regulations that limit the ability of private businesses to hire and fire, and hence discourage them from taking the risk of hiring based on skills rather than the focus on diplomas (Djavid Salehi-Isfahani and Dhillon 2008). The second dimension refers to the overstaffing of public enterprises and bureaucracies to an extent that drains economic

resources in addition to forgoing the additional value added which private enterprises are better able to produce from available skills (Acedo 2002).

It is important to mention here that education reform policies cannot succeed by themselves in altering the incentive systems facing students, parents, teachers, and schools, and in enhancing the link between education and economic growth, without parallel reforms in university admission policies, public sector hiring, and private sector regulatory policy reforms. These points, however, are beyond the scope of this work.

Given economic, political, and social pressures, including the pressures of youthful populations that require better employment opportunities, the costs of these labor market distortions have risen. In both oil rich and other Arab countries, the maintenance of guarantees of government employment are beyond the abilities of already stressed public budgets. The opening of economies for private and foreign capital became a trend since the 1990s, and the general orientation is that the private sector should be the main vehicle for creating employment opportunities and leading economic growth. Education reform plays a central role in achieving this vision. The mismatch between the outcomes of the education sector and market needs remain an important cause for unemployment and underemployment in Arab countries (Billeh 2002; Dhillon, et al. 2008). The dynamics that create this role for education reform vary among Arab countries. One could discuss these variations among oil rich and other Arab countries.

Macroeconomic imbalances, heavy external debts, distortions of the allocation of labor, and over-staffed bureaucracies and public enterprises led governments in the region to rethink their state-led and import-substitution industrialization policies

(Richards and Waterbury 2008). Education reform came to be perceived as an integral part of comprehensive economic reform in order to provide the labor force that satisfies the need of the markets. In addition, reform of education and training systems is needed to change the incentive systems which focus on diplomas for the sake of government employment toward a focus on building skills and learning abilities for the private sector (Acedo 2002). In Egypt, for example, the post-1952 revolution guarantee of employment in the public sector for university graduates was repealed in 1989 (Dhillon, et al. 2008). This implies a change in the role of the government from absorbing graduates into its bureaucracies to preparing them, through skills and training opportunities, for private employment.

Labor market imperatives for education reform in Gulf countries have a lot in common with the situation in other Arab countries. However, and as discussed broadly in Chapter 2, their small populations and continued reliance on oil and gas for achieving economic and social development create special vulnerabilities that act as incentives for policy reform and institutional building in the field of education. The common incentive for reform in Gulf and other countries stem from the increasing pressures to finance ineffective public bureaucracies and enterprises, in addition to the need for providing employment opportunities for their growing labor forces. Another important incentive in Gulf countries is the need to reduce reliance on foreign labor and diversify their economies beyond the oil sector.

The wage bill in the Arab Gulf region represents 10% of GDP in most of its countries. This is an outcome of years of government guaranteed employment for

nationals in the public sector. While the private sector is expected to lead the way in job creation, this is not an easy task due to liberal foreign labor policies that expanded during the 1970s with the oil boom. The private non-oil sector has historically relied on relatively less expensive and better trained foreign labor (Fasano and Goyal 2004). The preference for foreign labor stems from fewer government regulations on hiring and firing and easy access based on internationally competitive wages compared to nationals, who tend to avoid certain kinds of jobs such as manual labor. In addition, nationals usually lack the skills needed for high-skill jobs (Gonzalez, et al. 2008).

This preference for foreign labor leads to a number of problems. One of these problems is reflected in the discrepancy between large foreign labor and increasing unemployment roasters of nationals. This is expected to be a special problem given the growth of local labor force in GCC countries at a 4-5 percent rate from the late 1990s and until the early years of the new century. The labor force is likely to continue growing since more than one third of the local populations are below the age of 15 (Fasano and Goyal 2004).

Another problem with Gulf labor markets, which rely heavily on expatriate labor, is the relatively low growth rate of the non-oil sector in such countries as Kuwait and Saudi Arabia compared to the growth in the labor force. Second, the new jobs created in GCC countries during the late 1990s and early twentieth century are in the low-skill and low-wage sectors of the private non-oil economy, which continue to have easy access to cheap foreign labor. On the other hand, jobs in manufacturing and domestic services have never appealed to nationals (Fasano and Goyal 2004).

The large expatriate labor in Gulf countries causes a number of problems. In addition to growing unemployment among nationals, there are also possible political and social problems. Non-national workers in GCC countries have terminal residency permits that allow them to stay in the country for limited periods and have to be “sponsored” by a national employer<sup>36</sup>. Furthermore, children of expatriates born in the country do not acquire the citizenship of that country. They are only citizens of their parents’ country of origin. This status as, at best, temporary residents, means that there is a likelihood that these groups will not be vested in the country’s development. There is also the possibility that they will become potential security threats, or engage in criminal activities (Gonzalez, et al. 2008). Cultural differences and the creation of island zones for expatriates also create concern among many Gulf nationals (Samman 2003).

Gulf countries have adopted a number of policies to increase the employment of nationals and decrease the dependence on non-nationals, a sort of nationalization of the private sector workforce. A common strategy to achieve this goal was to depend on mandatory measures, such as quotas on nationals employed by private companies in specific professions or sectors. GCC countries have also employed administrative measures to increase the relative cost of hiring expatriates, such as regulating the supply

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36. The system of foreign labor sponsorship in Arab countries has been criticized on human rights bases since it limits the ability of foreign labor to exercise their rights of free movement, change jobs, bring family members from their home countries, and similar other rights without the consent of the sponsor. In 2010, Bahrain has abolished the Sponsor system, and other countries in the region such as UAE, Qatar, and Saudi Arabia have taken concrete steps toward ending these internationally criticized labor laws and regulations.

of work permits and fees or (training) taxes on employers who hire foreign workers (Fasano and Goyal 2004; Samman 2003).

But GCC countries have to strike a balance between nationalizing the labor force and maintaining the competitiveness of their economies. Therefore, market-based strategies such as improving training and education in line with private sector requirements have gained special attention. Differences in the stress on various policies for expanding the presence of nationals in labor markets have varied with the size and populations of these countries. Qatar, for example, has a relatively small national working-age population. Therefore, it has been more lenient in implementing nationalization policies, and is more focused on improving training and educational systems to increase the employability of nationals in the private sector. The UAE has avoided the use of quotas, except for the share of nationals in the banking sector, which pays the highest wages in the private sector. In contrast, Bahrain, Oman, and Saudi Arabia have more forcefully applied quotas. This is a reflection of their relatively larger national populations and higher unemployment rates. In sum, economic and labor market reform requires diversification beyond reliance on the oil sector, investment in human capital through education and training, and institutional reform in the labor market.

### Public Discontent

Educational systems which rely on memorization inflict huge costs on parents through private tuition. These systems also impose huge emotional stress during times of high stakes exams, to the extent that reading about cases of suicide of pre-University

students, especially high school students, as a result of stresses relating to exams and studying is not uncommon. Such a system is expected to raise discontent, especially when the outcome for students in terms of labor market opportunities is not high. This situation can act as a catalyst for change. Looking at pictures from the uprisings in Tunisia and Egypt, one finds a good number of pre-University students expressing resentment to the political system, but also expressing their frustration with the educational system and their future opportunities. It is difficult, however, to know what percentage these kids represented among the demonstrators.

Ideally, the main participants involved have stakes in a better educational system that builds skills and encourages entrepreneurship.

- Governments have a stake in education reform in order to lower unemployment, attract domestic and foreign investments, and strengthen their legitimacy.
- Parents and student are expected to be interested in lowering their financial and emotional stresses and gaining skills that would better their chances in getting access to gainful employment.
- Schools are expected to be interested in more autonomy and higher salaries for their employees. Although teachers have high stakes in maintaining their flow of income through private tutoring, they might also be interested in more training opportunities, higher salaries, and better social prestige.

Despite these interests, the system seems self-sustaining in a number of countries. This is arguably a result of history, where long-standing institutions tend to sustain themselves with minor changes given the embeddedness of ideas and interests over time. Despite the expected gains from education reform, factors that help maintain the status quo seem dominant. Governments are interested in control, bureaucratic as well as political, while students and parents are afraid of disrupting their life-long routines of memorizing, obtaining degrees, and getting formal employment, despite all the costs of such a system. Teachers are interested in private tutoring and central bureaucracies are satisfied with their control function which gives them access to power, prestige, and resources.

But there is growing evidence that the policing-aspect of this system is receiving mounting criticisms, and that there is growing interest in change. In addition to signs calling for regime change, demonstrators in Tunisia and Egypt also carried signs criticizing the education systems and their inability to contribute to the future of the students. Given the high stakes and public interest in the education system that leads to university enrollment, governments have found it necessary to use police-style tactics to guarantee the fairness of the system as inherited throughout history. For example, news in 2008, which has not been uncommon in Egypt, reported that a number of teachers and students received sentences between three and 15 years in prison for leaking and buying national examinations. A number of Egyptian students organized a series of online protests against the government's decision to start the school year during the last ten days of the holy month of Ramadan – a month of fasting and worship for Muslims. One young



protester commented that it would not make much difference whether the government starts the semester before or after Ramadan since many students do not attend school anyways (Dhillon, et al. 2008). Such acts of activism and voicing discontent can act as a catalyst for reform, but the future direction of reform in Tunisia, Egypt, and other Arab countries is still far from clear at the moment.

### International Attention

Amidst public discontent, one important factor contributing to reform is represented by the international community, especially Western governments and donor agencies. The discontent of students, and the contents of the curricula they study, gained increasing attention in recent years, especially after the tragic events of September 11<sup>th</sup> 2001, in addition to the increasing attention to human rights and democracy in the region for both security and ideological reasons. While a good deal of international attention has focused on religious education and its alleged role in encouraging violence or suppressing the rights of other religious groups, part of the attention was also directed toward the system and its role in developing skills needed in the job market.

Governments in the region more often than not deny any foreign influence in their efforts to reform the content and institutions of their education systems. For example, in an interview with Al-Sharq Al-Awsat newspaper during his ministership, Egypt's former Minister of Education, Hussein Kamel Baha' Eddine, responded to a question about whether the United States interferes in education policy given the aid it provides by saying "No one dares to interfere with Egypt's curriculum..." He also insisted that no

change has taken place in religious education, and that “the number of religious education lessons has increased, not decreased. The content of the religious study material [is determined] in cooperation with Al-Azhar, and with its full agreement. The Sheikh of Al-Azhar himself looks over and approves the curricula, and trains some of the teachers” (The Middle East Media Research Institute 2004).

But whether one believes in the national autonomy argument or not, it is difficult to totally reject the foreign influence, at least as a catalyst for change. For example, Kuwait’s Minister of State for Foreign Affairs, Mohammad Salem Sabah, said that “September 11 crystallized our thoughts.” He argued that there is a need to start with education reform, “[n]ot because the United States asked us, but because we generally don’t provide people with the skills” needed in the labor market. After gunmen in Kuwait, allegedly professing extremist Islamist views, opened fire on two U.S. marines in the country, killing one, the Kuwaiti Minister of Education declared war on “violence and fanaticism,” and ordered a review of textbooks to eliminate parts that promote extremism and intolerance (Glasser 2003).

But these reforms have also raised opposition and criticisms based on the perception of foreign interference aimed at banishing the Muslim and Arab identity of the region’s countries. Qatar’s education reforms, for example, which focus on math and science, and the English language, reduce the time allotted for religious education, and stress a participatory approach to education have been criticized by conservative Muslim scholars at home and abroad. Qatar’s reforms have also been subject to special criticism given the direct role of U.S. and European organizations, such as the U.S.-based RAND

Corporation, in forming and implementing the program. The RAND's team arrived in Qatar after the September attacks. Al-Watan, a leading Saudi newspaper, described the Qatari education reform program as originating from a "Jewish foundation," in reference to RAND. Islamist leaders and parliamentarians in Kuwait have also held rallies and spoke in the parliament against textbook reforms, arguing that these reforms represent foreign attempts to dilute their identity (Glasser 2003).

In order to understand the effect of this international attention in encouraging educational reform, we should consider the weight of the opposition as well as the perspective of the political leadership. The September attacks created an environment receptive of change and wary of the effects of education on encouraging terrorism. But the effect of international attention should also be weighed against the country's context and leadership goals. In Qatar, for example, Dominic Brewer, director of RAND's education unit and lead consultant on the Qatar project, once said, "Changes like more openness in the economy, entrepreneurship and ultimately democracy require a population that's used to these things. This was the opportunity to really build a model school system, to combine the best elements from around the world." (Brewer, et al. 2007). In other words, education reform should be perceived within the context of the leadership's will to reform the society and economy at large. A leadership that is threatened by domestic and foreign sources, worried about power transition, lacks the talents and institutions to decentralize, and handicapped by huge bureaucracies and/or opposition groups are less likely to be able to reform.

These differences could explain why Kuwait and Saudi Arabia, for example, did not go as far with their education reforms as Qatar and UAE. While the later two countries aggressively addressed the core of their educational systems in areas such as parental and student choice, school and teacher accountability, performance standards, evaluation methods, and curricular content and structure, Kuwait's reforms were constrained by ideological confrontations between Islamists and liberals, and were dominated by issues such as the mixing of the sexes (Carnegie Endowment for International Peace 2008). In Saudi Arabia, religious currents, especially the dominant role of Wahhabi scholars, and the desire for political control on the part of the political establishment have traditionally acted to guide possible reform initiatives and their implementation (Sakr 2008; Yamani 2006). In Egypt, for yet another example, concern with controlling the power of Islamists and the possibility that they gain societal influence through infiltrating the educational arena has been a consideration in drawing and implementing reform plans during Mubarak's rule<sup>37</sup> (Ginsburg, et al. 2010).

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37. The balance between decentralization and community participation to raise resources on the one hand, and the need to control the infiltration of Islamists and/or other opposition groups through the field of education on another, was brought to the forefront during the early stages of implementing the schools' Boards of Trustees (BOTs) in Egypt. BOTs were established by the Ministry of Education in all schools in order to enhance quality, accountability, and raise local resources through involving parents, civil society, and local business in school management. There is evidence that the BOTs have enhanced quality measured by the availability of extra-curricular activities, the rates for school drop-outs, students' attendance records, schools ethical climate, students' grades, and the extent of predominance of private lessons (L. El-Baradei and Amin, 2008). However, the MOE made a decision to reduce the financial responsibilities of these Boards in 2006. Schools' BOTs are required to deposit their financial resources in a bank account or post office account. The head of the BOT and the school headmaster used to have authority over the management of these funds. However, Ministerial Decree No. 334/2006 changed the signature authorities to be for the school headmaster and secretary rather than to be for the head of the school BOT and headmaster. This move has been perceived as a restriction on the BOTs. While the reason for this move was attributed to administrative procedures, a number of sources argued that the decision was

A discussion of the role of the international factor would be incomplete without discussing the role played by international organizations and bilateral aid agencies. While 9/11 has added urgency to the topic of education reform in Arab countries, the role of these agencies has been continuous for decades. The World Bank's widely-read report "The Road Not Travelled: Education Reform in the Middle East and North Africa" acknowledged the quantitative achievements of Arab countries in the field of education, including increasing enrollment and narrowing the gender gap, but highlighted failures in terms of outcomes such as skills development and the relevance of education to the needs of the job market. International organizations such as the World Bank, in addition to bilateral aid agencies such as USAID, have added more attention to the issue of quality education.

The 2000 "Education for All" Conference in Dakar, Senegal, represented a turning point for many Arab countries, including Egypt and Qatar. The Egyptian government and other participants declared that reform of educational management is urgently needed in order to move from highly centralized, standardized, and command-driven forms of management to more decentralized and participatory decision-making, implementation, and monitoring. In addition, participating countries pledged to identify administrative systems as the main unit in the education process, and establish levels of

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motivated by the infiltration of a number of members from the banned Muslim Brotherhood into a number of school boards.

responsibility for each actor in the management process, in the control of results, and in accountability (Ginsburg, et al. 2010).

### Country Cases

As mentioned above, the choice of Egypt and Qatar as cases is based on the presence of a number of differences and similarities between the two countries that could illuminate how history, exogenous variables, and political stability function in a way that explains the variation in economic and social outcomes among Arab countries. The educational systems in both countries suffered from similar problems which were, in turn, reflections of ingrained ills. High dropout rates, private tutoring, and low scores on international standardized exams could be considered outcomes of centralized and inflexible systems that focus on memorization, outmoded curricula, and centralized and high stakes examinations.

Despite these similarities, and the fact that Qatar's educational system was based, to a large extent, on the Egyptian model until the beginnings of the new century, the two countries are on opposite ends of the continuum on size, population, wealth, as well as political systems. These differences could help us understand the differences in design and implementation of education reform.

As discussed earlier in Chapter 3, Egypt's education system represented accumulations of structures and curricula layered over on top of each other over the years. When Qatar started drafting its educational system in the mid-1950s, it turned to the Egyptian system as a model. From the mid-1950s to the mid-1960s, the newly created

Qatar's Ministry of Education adopted curricula and textbooks, as well as administrative systems and structures, from Egypt and other Arab countries; such as Saudi Arabia, Jordan, Iraq, Syria, and Lebanon (Brewer, et al. 2007; Gonzalez, et al. 2009).

But Qatar's education reform, which started with the turn of the century, reflects an intention to overhaul the system. While the ultimate effects of this reform on economic development and the sustainability of this development are difficult to ascertain at this point, it is possible to argue that Qatar's Education for a New Era (ENE) involves a conscious attempt at changing incentive structures facing students, teachers, and schools in order to achieve quality education. Egypt's National Strategic Plan (NSP) for Pre-University Education reflects an intention to reform the already existing education system rather than replacing older structures with newer ones. Evaluating the effects of reform in the Egyptian case is even more difficult than the situation in Qatar given the absence of evaluation studies discussing the achievements, or lack thereof, of the strategic plan although we are nearing the end of the plan's time period as of 2011. This could be considered a failure in itself given that monitoring and evaluation are integral parts of the NSP.

Before discussing the nature of reforms in both Egypt and Qatar, and their special motivators, it is important to highlight the main contextual differences between the two countries to put this discussion in context. The main differences could be discussed in the context of: size, financial resources, and political stability.

### The Context and Status of Education in Egypt and Qatar

The imperatives of change discussed above represent general catalysts for reform. But the context of reform also matters. Egypt's long history of centralization and bureaucratization could arguably make change more difficult. This is also true regarding the challenges facing the political regime, during and after Mubarak, and the need for political control. I will start by a discussion of the differences regarding size and financial resources given their importance in determining the ability of the country to engage in education reform. I then move on to a discussion of the political context for reforming the system of governance in the field of education.

Table 25 shows that Egypt and Qatar almost fall on opposite sides of the continua with regard to size, both area and population, and wealth. These differences could make the comparison unfair. But the purpose of the comparison is not to highlight which country is better able to achieve development or implement reform. It would be logical to assume that a richer country with less population is in a better position to create change. The purpose is to put under the spotlight how these two countries are different in their response to the imperatives of educational reform highlighted earlier, and to interpret these differences within the framework highlighted in Chapter 2, which is based on the influences of size, political stability, and vulnerability.

Egypt's area is more than 80 times larger than the tiny area of Qatar. It also has more than 100 times arable land compared to Qatar. As of 2008, the population of Egypt, one of the most populous countries in the world, is more than 63 times that of Qatar. It is



Table 25. Size and Wealth Differences between Egypt and Qatar

Characteristic	Egypt	Qatar
Area Size (km-squared)	995,450	11,590
Arable land (hectares)	3,018,000	18,000
	(2007)	(2007)
Population	81,527,172	1,280,862
	(2008)	(2008)
Population ages 15-64 (% of total)	63.0065%	82.72%
	(2008)	(2008)
Employment to population ratio, 15+, total (%)	43.2	76.9
	(2008)	(2008)
GDP per capita, PPP (constant 2005 international \$)	5,010.836	63,150.61
	(2008)	(2006)
Expense <sup>38</sup> (% of GDP)	30.41827726	17.769
	(2008)	(2007)

*Note:* Reproduced from World Development Indicators. The most recent year of when the data is available is in parentheses.

important here to note that the majority of Qatar's population is non-nationals. Although Qatar does not publish official figures for the breakdown of the population between nationals and non-nations, estimates for 2006 are that Qataris constitute about 18% of the population. Education reform in Qatar is one dimension in a policy aiming at increasing the number of Qataris in the labor force and reducing unemployment among nationals (Guarino, Gonzalez, Tanner, Constant, and Galama 2009).

Another important element of comparison is history. Egypt's history dates to millennia ago, while Qatar's presence as a nation state dates back to the mid-20<sup>th</sup> century. Egypt's history with modern education could be traced back to the early 19<sup>th</sup> century

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38. Government Expense are cash payments for operating activities of the government in providing goods and services. It includes compensation of employees (such as wages and salaries), interest and subsidies, grants, social benefits, and other expenses such as rent and dividends.

during the rule of Muhammed Ali, while Qatar's history with modern education could be traced back to the mid-20<sup>th</sup> century. Historical differences have direct effects on the possibility of institutional change. If institutions are defined as formal and informal structures and norms guiding the performance of various functions, one can argue that time makes it more difficult to impose changes since established values and norms get more integrated within institutions in a way that raises the cost of change (Pierson 2004; Pierson and Skocpol 2002; Skocpol and Pierson 2000; Thelen 1999; Zelizer 2003).

Another important difference is in terms of wealth. Qatar is one of the world's richest countries. Qatar's per capita GDP is more than 12 times that of Egypt. Qatar's wealth is especially huge given its small population. Figure 12 compares Qatar to a number of countries in terms of GDP and GDP/capita.

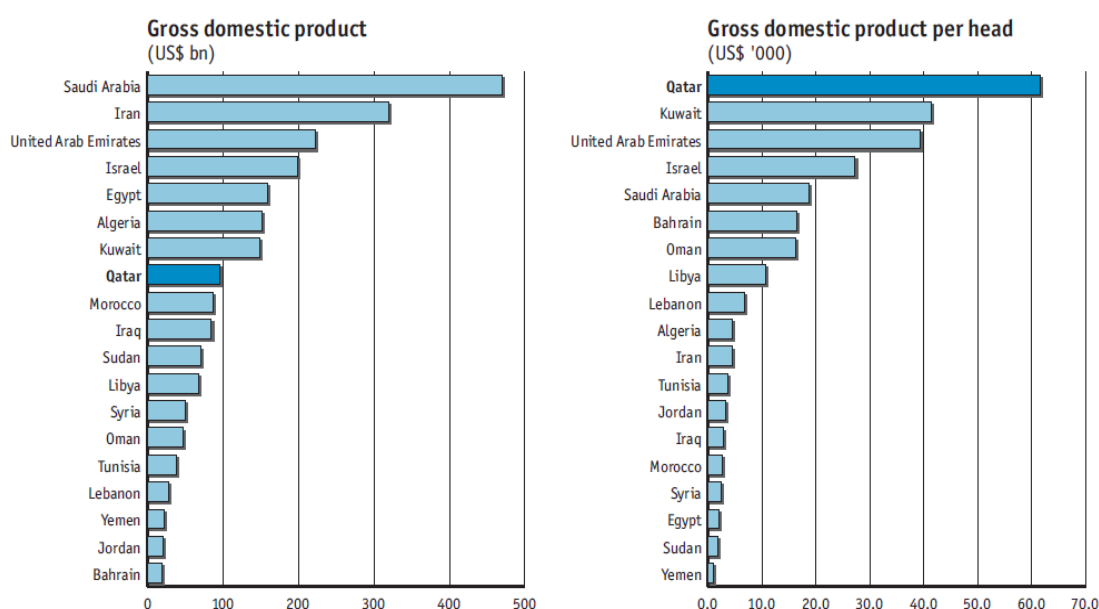


Figure 12. GDP and GDP/capita in Qatar and a number of comparative countries. Reproduced from Economist Intelligence Unit. 2010. Qatar Country Profile 2009. London, UK: Economist Intelligence Unit.

In addition to difference in wealth, the willingness of the Qatari leadership to spend on education has been mentioned in a number of studies addressing the progress of education reform in Qatar (Gonzalez, et al. 2008; Gonzalez, et al. 2009; Guarino, et al. 2009; Hilgendorf 2007; Zellman, et al. 2009). Spending on the ENE in Qatar increased from QR144 million in the startup phase of the program to QR523 million in the first year of operation of Independent Schools, and QR841 million in the second year.<sup>39</sup> Between 2004 and 2006, total spending on operating Independent Schools more than doubled, from just under QR200 million to just over QR400 million.

Before moving on to a discussion of the political context, which goes hand in hand with the material context in explaining variations in reform plans and implementation, I present a review of the status of the education sector in both countries in terms of size, quantitative achievements, and qualitative shortcomings (see Table 26). The purpose is to provide a perspective of where both systems stand at present.

The first group of variables represents differences in size among the two sectors. As Egypt is larger in terms of both population and area size, the same holds for the size of the education sector. Egypt's education sector is the largest in the Middle East, and one of the largest in the world (Egypt's Ministry of Education 2007; M. El-Baradei and El-Baradei 2004). The number of enrolled students and students in official school age is in the millions in Egypt, while the numbers are in the thousands in Qatar. This implies a

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39. The Qatari Riyal (QR) was approximately equal \$ 0.275, between 2004 and 2006, and the exchange rate has remained relatively stable.

Table 26. Quantitative and Qualitative Differences between Education Sectors in Egypt and Qatar

	Egypt	Qatar
<u>Size of the Education Sector</u>		
Pupils of the official school age, primary, total	9,381,363 (2007)	71,793 (2008)
Pupils of the official school age, secondary, total	7,671,784 (2002)	56,110 (2008)
Student enrollment, primary, total	9,988,181 (2007)	78,123 (2008)
Enrollment in upper secondary, public and private, general programs, total	1,353,883 (2004)	29,848 (2008)
Student enrollment, secondary, total	8,329,822 (2004)	66,084 (2008)
<u>Education Spending</u>		
Public Education Expenditure as percentage of GDP	3.8 (2008)	3.3 (2005)
Public education expenditure, % of Gov-t spending	11.9 (2008)	19.6 (2005)
<u>Quantitative Achievements</u>		
Drop-out rate (%), primary	3 (2006)	3 (2007)
Gross enrollment rate (%), primary, total <sup>a</sup>	100 (2007)	109 (2008)
Net enrollment rate (%), primary level, total <sup>b</sup>	94 (2007)	94 (2003)
Gross enrollment rate (%), lower secondary, total <sup>c</sup>	90 (2004)	113 (2008)
Gross enrollment rate (%), upper secondary, total <sup>d</sup>	69 (2004)	78 (2008)
Gross enrollment rate (%), secondary, total <sup>e</sup>	79 (2004)	93 (2008)
Net enrollment rate (%), secondary, total <sup>f</sup>	71 (2002)	79 (2008)
Duration of Education, compulsory	9 (2008)	12 (2008)
Duration of education, secondary	6 (2009)	6 (2009)

Table 26 continued.

	Egypt	Qatar
Duration of education, upper secondary	3 (2009)	3 (2009)
Primary completion rate, total <sup>g</sup>	95 (2007)	115 (2008)
Private enrollment share (%), primary	8 (2007)	50 (2008)
Expected primary completion rate (% of population at theoretical entrance rate)	94 (2007)	103 (2008)
Percentage of repeaters (%), secondary	7 (2004)	3 (2008) <sup>h</sup>
Progression to secondary level	86 (2003)	99 (2006)
School life expectancy (years), Primary to secondary, total	10 (2004)	12 (2008)
<u>Measures of Gender Parity</u>		
Gender parity Index (GPI), gross enrollment ratio in primary and secondary education <sup>i</sup>	1 (2004)	1 (2008)
Gender parity Index (GPI), gross enrollment ratio in primary education	1 (2007)	1 (2008)
Gender Parity Index for % repeaters, All grades, Primary	1 (2007)	1 (2008)
Gender Parity Index for adjusted net enrollment rate, Primary	1 (2007)	1 (2003)
Gender Parity Index for gross enrollment ratio, lower secondary, all programs	1 (2004)	1 (2008)
Gender Parity Index for gross enrollment ratio, upper secondary, all programs	1 (2004)	2 (2008)
Gender Parity Index for net enrollment rate, secondary	1 (2002)	1 (2008)
Gender Parity Index for gross enrollment ratio. All levels combined, except pre-primary	1 (2007)	1 (2003)
Gender Parity Index for gross enrollment ratio. Primary and Secondary combined	1 (2007)	1 (2003)
Gender Parity Index for school life expectancy, primary to secondary	1 (2004)	1 (2008)
Gender Parity Index (GPI), gross enrollment ratio in secondary education	1 (2004)	1 (2008)

Table 26 continued.

	Egypt	Qatar
<u>Teachers</u>		
Pupil-teacher ratio, primary	27 (2007)	13 (2008)
Pupil-teacher ratio, secondary	17 (2004)	10 (2008)
Student Performance on International Standardized Exams		
PIRLS: Mean performance on the reading scale, total <sup>j</sup>	-	353 (2006)
PIRLS: Students reaching the advanced international benchmark in reading achievement (%)	-	0 (2006)
PIRLS: Students reaching the low international benchmark in reading achievement (%)	-	33 (2006)
PISA: Mean performance on the mathematics scale <sup>k</sup>	-	368 <sup>l</sup> (2009)
PISA: Mean performance on the reading scale	-	372 <sup>m</sup> (2009)
PISA: Mean performance on the science scale	-	379 <sup>n</sup> (2006)
PISA: students at the highest level of proficiency on the mathematics scale (%)	-	0 (2006)
PISA: students at the highest level of proficiency on the reading scale (%)	-	1 (2006)
PISA: students at the highest level of proficiency on the science scale (%)	-	0 (2006)
PISA: students at the highest level of proficiency (level 5 or above) on the science scale (%)	-	1.4 <sup>o</sup> (2006)
PISA: students at the lowest level of proficiency on the mathematics scale (%)	-	72% (2006)
PISA: students at the lowest level of proficiency on the reading scale (%)	-	61 (2006)
PISA: students at the lowest level of proficiency on the science scale (%)	-	48 (2006)
PISA: students at the lowest level of proficiency (below level 2) on the science scale (%)	-	65.2 <sup>p</sup> (2006)
TIMMS: Eighth grade students reaching the advanced international benchmark of mathematics achievement (%)	1 <sup>q</sup> (2007)	0 (2007)

*Table 26 continued.*

	Egypt	Qatar
TIMMS: Eighth grade students reaching the advanced international benchmark of science achievement (%)	1 <sup>r</sup> (2007)	0 (2007)
TIMMS: Eighth grade students reaching the low international benchmark of mathematics achievement (%)	47 <sup>s</sup> (2007)	16 (2007)
TIMMS: Eighth grade students reaching the low international benchmark of science achievement (%)	55 <sup>t</sup> (2007)	29 (2007)
TIMMS: Fourth grade students reaching the advanced international benchmark of mathematics achievement (%)	-	0 (2007)
TIMMS: Fourth grade students reaching the advanced international benchmark of science achievement (%)	-	0 (2007)
TIMMS: Fourth grade students reaching the low international benchmark of mathematics achievement (%)	-	13 (2007)
TIMMS: Fourth grade students reaching the low international benchmark of science achievement (%)	-	23 (2007)
TIMMS: Mean performance on the mathematics scale for eighth grade students, total	391 <sup>u</sup> (2007)	307 (2007)
TIMMS: Mean performance on the mathematics scale for fourth grade students, total	-	296 (2007)
TIMMS: Mean performance on the science scale for eighth grade students, total	408 (2007) <sup>v</sup>	319 (2007)
TIMMS: Mean performance on the science scale for fourth grade students, total	-	294 (2007)

*Note:* Data and definitions are from Edstats.

<sup>a</sup> Gross enrollment rate, primary is the number of pupils (total male and female) enrolled in primary, regardless of age, expressed as a percentage of the population (total male and female) in the theoretical age group for primary education.

<sup>b</sup> Net enrollment rate, primary level is the number of pupils (total male and female) in the theoretical age group for primary education enrolled in primary education expressed as a percentage of the (total male and female) population in that age group.

<sup>c</sup> Gross enrollment rate, lower secondary is the number of pupils (total male and female) enrolled in lower secondary, regardless of age, expressed as a percentage of the population (total male and female) in the theoretical age group for lower secondary education.

<sup>d</sup> Gross enrollment rate, upper secondary is the number of pupils (total male and female) enrolled in upper secondary, regardless of age, expressed as a percentage of the population (total male and female) in the theoretical age group for upper secondary education.

<sup>e</sup> Gross enrollment rate, secondary is the number of pupils (total male and female) enrolled in secondary, regardless of age, expressed as a percentage of the population (total male and female) in the theoretical age group for secondary education.

<sup>f</sup> Net enrollment rate, secondary is the number of pupils (total male and female) in the theoretical age group for secondary education enrolled in secondary education expressed as a percentage of the (total male and female) population in that age group.

<sup>g</sup> Primary completion rate is the total number of students (male and female) regardless of age in the last grade of primary school, minus the number of repeaters (total male and female) in that grade, divided by the total number (male and female) of children of official graduation age.

<sup>h</sup> The percentages were 5, 5, and 9 in the previous 3 years.

<sup>i</sup> The Gender Parity Index (GPI) is the ratio of the female-to-male values of the gross enrollment ratio in a specific educational level. A GPI of 1 indicates parity between sexes.

<sup>j</sup> The only data available on Qatar are for PIRLS 2006. Egypt has not participated in PIRLS.

<sup>k</sup> The only data available on Qatar are for PISA 2006 and 2009. Egypt has not participated in PISA.

<sup>l</sup> The score was 318 in 2006.

<sup>m</sup> The mean was 312 in 2006.

<sup>n</sup> The score was 349 in 2006.

<sup>o</sup> The percentage was 0.3 in 2006.

<sup>p</sup> The percentage was 79.1 in 2006.

<sup>q</sup> The percentage in 2003 was also 1.

<sup>r</sup> The percentage in 2003 was also 1.

<sup>s</sup> The percentage was 52 in 2003.

<sup>t</sup> The percentage was 59 in 2003.

<sup>u</sup> The mean was 406 in 2003.

<sup>v</sup> The mean was 421 in 2003.



number of repercussions on the financial, administrative, and political aspects of reform. First, the financial aspect is an obvious challenge for education reform in Egypt given the size of the sector and the country's financial capacity. The figures above show that spending on education as percentage of GDP is relatively close in both countries, although Qatar spends more on education as percentage of government spending compared to Egypt (19.6% and 11.9% respectively). In addition to these differences, Qatar's small population and large GDP mean that a lot more is spent on education per student compared to Egypt.

Administratively, a larger size complicates reform from a number of perspectives. For example, Egypt's education reform has often been based on pilot projects. While education sector-wide plans have been formulated over the years, an important dimension was to implement pilot projects and expand the implementation of successful ones. For instance, in 2002, the then-ruling National Democratic Party's policy statement emphasized that the private sector and civil society should have a greater role in the field of education. The policy statement also noted that the direction toward decentralization should be implemented gradually with experimentation preceding generalization. The idea of gradual implementation of decentralization and community participation was referred to in the "National Plan for Education for All (2002/2003-2015/2016)" through building local capacity to guarantee that the transfer or delegation of authority will be to an efficient partner (Ginsburg, et al. 2010). The National Strategic Plan for Pre-University Education in Egypt also highlights the importance of pilot projects and

generalizing successful experiments (Egypt's Ministry of Education 2007). This could be attributed to political and financial as well as administrative considerations.

On the other hand, Qatar's ENE is nothing short of an overhaul of the education system, with the creation of a whole parallel structure to the Ministry of Education, which was later abolished as implementation of the program progressed. In one of its reports on education reform in Qatar, RAND points out that in 2004, the Evaluation Institute, a new ENE structure, surveyed all principals, teachers, and parents, in addition to most students in public and private schools before the Independent Schools, started to operate (Brewer, et al. 2007). The expenses of such a survey would be prohibitive from a financial and administrative perspective in Egypt given the large size of the sector.

Politically, the large size of the administrative sector in Egypt means that more is at stake in any attempt at administrative reform. First, changes in such areas as how exams are designed or how textbooks are printed and distributed will affect a larger number of people. Egypt's long-time centralized administrative system in the field of education guaranteed a sort of blind equality. That is, a system which achieves equality to an extent that neglects differences in abilities and potential, and even at the cost of quality and administrative feasibility. A change in this system could agitate parents and students who are used to being concerned about grades and diplomas rather than quality and efficiency. Changes in the administrative system of education could also raise opposition from business interests who gain huge incomes from printing outside textbooks to help students with the centralized curricula and passing centralized exams. One interesting piece of news which came out mid-January 2011, shortly before the eruption of the

Egyptian uprising, said that owners of private printing companies were calling on President Mubarak to prevent the Minister of Education from implementing his decision to take over their share of printing government school books. The argument was that this will render thousands of families without a source of income (Al-Shorouk 2011).

Leaving issues of size and spending to gender parity, which is an important aspect of the quantitative achievement, we find that Egypt and Qatar have achieved gender parity in the field of education. All measures of the Gender Parity Index (GPI) are 1, which means full parity. One interesting observation is that the GPI for gross enrollment ratio in upper secondary for all programs in Qatar is 2, which means that more women are enrolled than men. This could be attributed, at least in part, to the fact that men have a better chance of travelling abroad for education. The teacher-student ratio is also favorable. However, and as mentioned earlier, these percentages hide the presence of large non-teaching staff (M. El-Baradei 2009; M. El-Baradei and El-Baradei 2004).

The alarming numbers are those regarding student scores on international standardized exams. As mentioned in Chapter 1, Arab students generally score low on these exams, which reflect poor quality of education. If this is the case, no wonder that privatization, increased investments, and reform of labor laws have limited effects on reducing unemployment in the region. The scores of Egyptian and Qatari students are no exception. In PIRLS 2006, Qatar came at the lower end of the ranking of the 45 countries that participated in the test, only Kuwait, Morocco, and South Africa had even lower rankings. Qatari students' average scale score of 353 was statistically significantly lower than the test's scale average of 500. No student achieved at the Advanced International

Benchmark, while only 1% of the participants achieved at the High International Benchmark, and 11% achieved at the Intermediate Benchmark. The plurality (33%) achieved at the Low Benchmark (Mullis, Martin, Kennedy, and Foy 2007).

Qatari students achieved similar results on the 2006 PISA test, where no student achieved at the highest level of proficiency on the mathematics or science scales, and only 1% achieved at the highest level of proficiency on the reading scale. The majority of students (72% and 61%) achieved at the lowest level of proficiency on the mathematics and reading scales, while a little less than half (48%) achieved at the lowest level of proficiency on the science scale. Qatar's scores, however, have improved in 2009, although performance is still not impressive. Qatar achieved statistically significant positive annualized observed change<sup>40</sup> in PISA 2009 in reading (17.6), mathematics (16.7), and science (10). Between 2006 and 2009, Qatar reduced the share of lowest performers in science by around five percentage points. It has reduced the percentage of students who had not reached the baseline level 2 in science by 14 percentage points, even if almost two-thirds of students in Qatar still perform below Level 2. Qatar had almost no students at proficiency levels 5 or 6 in science. The percentage of top performers in science increased to slightly more than 1 percent (OECD 2010).

The scores on TIMMS for eighth graders in Egypt and Qatar, and for fourth graders in Qatar, were equally disappointing. Only 1% of Egyptian students reached the

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40. Annualized changes are calculated by dividing the performance difference by the number of years between two assessments. The results reflect a score change associated with one calendar year.

Advanced International Benchmark for eighth graders in mathematics and science. No students reached this benchmark in either the fourth or eighth grades in Qatar.

These results could be attributed to either the education system which does not provide students with the necessary skills (Pritchett 1999), or to the incentive structures facing students and parents (Djavad Salehi-Isfahani 2006). As presented in the previous chapter, there is no contradiction between both interpretations. The history of education in the region tells us that, over the years, subjects were compiled over each other with layers of secular education added to earlier layers of religious education, which meant that memorization and centralized exams became the only feasible alternative to evaluate students. The increase in numbers, the introduction of free education and employment guarantees further increased the importance of these exams to achieve equality, even at the cost of quality and efficiency. On their part, students and parents responded to the incentives from the labor and education systems in a way that fostered the importance of diplomas and exams at the cost of quality and skills development.

### The Political Context of Reform

As I highlighted earlier in this chapter, I approach education reform as a government initiative that leads to a number of effects on the incentive systems facing parents, students, schools, and teachers. In other words, the state is perceived as the initiator of reforming the incentives facing other actors. This state initiative is itself guided by incentives facing the elites. In addition to changing incentives, education reform is expected to lead to changes in the system of learning through such

developments as changes in curricula, examination and evaluation, and teaching methods. These two dimensions: incentives and pedagogical techniques are reflected in systems for guaranteeing education quality, which will be the focus of the remainder of this work. My focus will be on the institutional dimension of education reform concerned with governance. These are the interventions or activities targeted at managing the relations between the various actors involved in the education process on the local and national levels.

Before moving on to discussing the hypotheses and the conceptual framework used to evaluate differences in systems of quality assurance in Egypt and Qatar, it's important to consider the political context of reform in both countries. If the main argument is that the state is the main initiator of education reform, it becomes important to understand how the contextual variables shaping regime stability and time horizon of the regime in power act as motivators/incentives or as a handicaps of change.

### Egypt

This section will focus on education reform during Mubarak's presidency. One could discuss the political context for education reform in Egypt in terms of factors that affect the drive of the political regime for maintaining control. History and size of the sector could also contribute to our understanding of the bureaucratic and business interests that contribute to the maintenance of the status quo with only incremental reforms.

The main regime interest in maintaining control could be understood from the perspective of the Islamist threat to regime stability. Ginsburg, et al. (2010) discuss the organization of governance and management structures in Egypt across the local and national levels from the school/community, district/*idara*, governorate/*mudiriyya*, and up to the national/central levels during the Mubarak era (1980-present). The focus is on decentralization and community participation. The authors argue that the uneven movement toward decentralization during the 1980s, the MOE's actions that restricted local decision making authority during the 1990s, and concerted movement toward delegation and devolution of authority after 2001 could all be attributed to the regime's perception of the threat from Islamist currents in the country (Ginsburg, et al. 2010).

During the 1980s, the continuing conflict and competition with radical Islamist groups were main reasons for the government's cautious approach to decentralization and community participation. In addition to violent groups such as *al-Jama'at al-Islamiyya* (the Islamic Group) and *al-Jihad*, other groups, mainly the Muslim Brothers, sought non-violent strategies that competed with the then-ruling National Democratic Party. These strategies focused on providing local social services, including education, to meet the needs that the government had sometimes failed to meet (Ginsburg, et al. 2010). According to Sayed (2006) and Ginsburg, et al. (2010) the participation of stakeholders concerned with the education process, such as civil society organizations and interest groups, was ceremonial and intended only to legitimize the status quo.

Other factors also played a role in maintaining centralized control, such as concern about the competence of local actors. However, the struggle with radical Islamic

groups was a more central factor that constrained the drive to decentralization and local community participation in education. Avoiding the empowerment of communities and parents was mainly driven by security and political stability considerations (Ginsburg, et al. 2010). According to Sayed (2006), controlling and blocking the penetration of radical Islamists in the education system was achieved by fastening the grip of the central MOE on the system and exercising horizontal and vertical control. But the central government control was not only directed against radical Islamist groups. It also aimed at limiting the influence of the Muslim Brothers, who are generally considered a moderate Islamic group. Balancing these trends which encouraged increased central control, however, was the need for financial resources. For example, Ministerial Decree No. 5 of 1993, which established the Parent-Teacher Councils<sup>41</sup>, allowed parents to monitor the quality of education while encouraging donations of money and equipment to schools (Ginsburg, et al. 2010).

It became “safer” by the mid-1990s to involve educators and local communities in the education process given that many educators suspected of having links with Islamist groups have already been removed from schools, and by the end of the 1990s, the government and radical Islamist groups agreed on ending violence. International donors, in cooperation with the Egyptian government, adopted policies to win the “hearts and minds” of the local populations through providing social services and including them in a

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41. Although Parent Councils existed since the 1960s, their scope of authority expanded during the 1990s to allow for monitoring quality at the school level.



democratic process to meet their needs. Containing the radical Islamist threat was an equally central motive for European and American donors in directing resources to education in Egypt.

Within this context, the MOE established an NGO department in 1999, and Ministerial Decree 30/2000 authorized NGOs to work in community education, making sure to stipulate that civil society organizations are not allowed to engage in any political activism. The 1999 law was ruled unconstitutional by the Supreme Constitutional Court, and Law 84/2002 allowed more freedom for NGOs, but it continued to forbid them from joining networks without the approval of the Ministry of Social Affairs. The Government of Egypt (GOE) also designed other reform programs in cooperation with USAID and other bilateral and multilateral donors such as the World Bank. These programs include the Education Reform Program (ERP), which aimed at mobilizing wider participation at the local level (Ginsburg, et al. 2010).

Other projects, implemented on pilot bases, were designed to encourage decentralization and community participation. Arguably, one important goal of these programs is to help mobilize resources. The Alexandria Reform Pilot Project (2001-2004), which was funded by the USAID, was designed to allow community members to become more involved in the management of pilot schools and to transfer more responsibilities for school management to school administrators. The MOE authorized the governorate of Alexandria to undertake any action necessary to implement the pilot project and allow schools to undertake independent decisions and actions to improve the school and student learning, and also to raise revenues and funds. Every school according

to this project is responsible for developing a school vision, mission, and an improvement plan<sup>42</sup>. Ministerial Decree No.262/2003 established three new units within schools responsible for total quality, productive activities, and training and evaluation, indicating a greater role for schools in conducting self-assessment and determining training needs. An undersecretary for education affairs is now appointed in each governorate (Ginsburg, et al. 2010).

The expansion of the role played by these bodies came as a result of Ministerial Decree 258/2005. The prime movers in this project were Alexandrian businessmen, who were not very satisfied with educational outcomes and the use of money directed to the field. They negotiated with the USAID to aid the project, which was also facilitated by the positive relations between the governor and the business community in his governorate. One accomplishment of this project is the upgrading of the Parent-Teacher Councils to become Boards of Trustees (BOTs)<sup>43</sup>. Another Ministerial Decree, No. 334, came out in 2006 to delineate these responsibilities and authorities, in addition to membership rules (Ginsburg, et al. 2010).

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42. According to the MOE's website, the Alexandria experiment was generalized to the governorates of Cairo, El-Menia, El-Fayyoun, Bani Sweif, Quena, Aswan, El-Dakahleyya, El-Sharkeyya, and Luxor. See: <http://knowledge.moe.gov.eg/Arabic/about/achievement/support/>.

43. The MOE's website describes the BOT's main functions as participating in school administration, nominating administrators, proposing recommendations regarding curricula related to the environment and society, distributing the budget, raising addition funding resources, linking the school to its community, and achieving more social supervision. See: <http://knowledge.moe.gov.eg/Arabic/about/achievement/support/>.

In short, one could notice a clearer shift toward educational governance reform and broadening participation in Egypt toward the end of the century and the beginning of the new millennium. From a managerial perspective, this perceived change focused on institutionalizing decentralization and community participation, capacity building at the local level, enhancing accountability mechanisms, and increasing the role of schools in quality assurance. One could argue about a number of factors that drove this trend. One central factor is the financial need of the Egyptian government, especially given the size of the sector and the quantitative expansion during earlier decades. However, the size of the sector also acted as a disincentive for reform. Out of caution of raising political instability, in addition to financial handicaps, the GOE chose to implement pilot projects and generalizing successful experiences (Ginsburg, et al. 2010).

The long history of centralization and a massive bureaucratic structure created a culture which has limited ability to act independently both at the local and national levels. National bureaucracies resented decentralization and distrusted the abilities of local levels to act independently. Historically, the Ministry of Finance had control over the education budget, in addition to the role of the Ministry of Local Administration. This means that the financial resources needed for building the human and institutional capacity of the education sector is only partially controlled by the Ministry responsible for education (Ginsburg, et al. 2010).

Other motivators for the focus on quality could be attributed to the factors discussed earlier regarding incentives of change in Arab countries generally toward education quality. These include the need to reform the labor market in light of the trend

toward reliance on market forces and providing employment opportunities to the growing numbers of new entrants to the labor market. Other challenges from radical Islamist groups were starting to materialize during this very same time period, however.

These challenges were important factors in guiding the pace of education reform. Hence, while financial needs pushed toward broadening the governance structures in the field of education, fears regarding the spread of the influence of Islamist groups controlled this trend. The amelioration of these fears after the agreement between the government and militant Islamist groups to stop the violence encouraged steps toward managerial and institutional reforms. International donors also played important roles in Egypt's education reform. These include bilateral agencies such as the USAID, multilateral agencies such as the World Bank and UNESCO, as well as international NGOs such as the Academy for Educational Development.

In sum, security and political considerations, financial constraints, and bureaucratic inertia all play a role in pacing the move for managerial and institutional reform of the education system in Egypt. On the other hand, other political and economic developments, in addition to managerial, pedagogical, and international developments are pushing for change.

### Qatar

Qatar's political context is different from that in Egypt, which provides different catalysts for educational reform. One could point to two main factors that help explain the shift in Qatar's education system from one based on centralized control, rote

memorization, and limited choice, to a new flexible system based on choice, autonomy, and market forces. These two dimensions are the change in the social contract and the threats facing the political regime, or the regime's vulnerability, to use vocabulary that I have been using throughout this work.

The social contract argument stipulates that diminishing oil prices, probably up to the 2003 invasion of Iraq, created changes in the relationships between the rulers and their societies in Gulf countries. The rentier state model, which characterizes these systems, is based on the premise that oil rents allow the leaders to buy the loyalty of the public through intensive cradle-to-tomb welfare systems. The drop in oil prices since the mid-1980s meant that Gulf rulers found it more difficult to maintain their expansive welfare systems. However, while one could argue that the drop in oil prices has had direct effects on the political systems in rentier states, the liberalizing economic and political trends, as well as educational reforms, that Qatar has taken could not be explained by dwindling oil or natural gas<sup>44</sup> prices alone. The small population of Qatar and large revenues from natural gas production meant that the country was not in dire need for changing its social contract through reducing the provision of public goods or relying more on taxation. The belt tightening measures that Qatar implemented were intended to finance a series of gas and industrial projects that are expected to guarantee a rise in per capita GDP over the present century (Rathmell and Schulze 2000).

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44. Natural gas is the main natural resource in Qatar.

If this is the case, one should search for factors that motivate the political leadership from within the power dynamics of the ruling regime. In this search, we should not forget that an important element that aids any reform effort is the availability of funding. And Qatar's wealth means that there is no shortage of such funding. One could even argue that education reform in Qatar could be interpreted using the same lens to interpret the huge spending the small Gulf country dedicated for hosting the 2022 World Cup; that is, as an outlet to increase the economy's absorptive capacity given the huge inflows of oil wealth. But this does not explain the whole story. A fuller picture can only be gained through understanding the leadership's drive to expand its basis of support, to enhance its regional security standing, and distinguish itself from its larger neighbor – Saudi Arabia<sup>45</sup>. The dedication of the political leadership and readiness to spend on education reform deserves more attention for theoretical and practical purposes.

Qatar is a stable monarchy. Tribal norms still play an important role in managing relations among the elites. Despite its short history as a nation-state, dating back only to 1971 when it gained its independence from Great Britain, Qatar's tribal history and social norms have been in existence for long. The ruling Al-Thani family was prominent in the Qatari society since the mid-1800s, Sheikh Mohamed Bin Thani was the one who signed

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45. Alleged Saudi support for a counter-coup against Sheikh Hamad in 1996 put strain on the relations between Qatar and Saudi Arabia. The relations deteriorated further when Al-Jazeera was deemed to insult Abdel-Aziz Al-Saud – the Saudi founder. Saudi Arabia withdrew its ambassador and blocked a proposed pipeline through its waters from Qatar to Kuwait. However, in September 2007, with concerns growing over the Iranian-US nuclear stand-off, reconciliation talks were held in the Saudi capital, Riyadh, and a Saudi ambassador returned to Qatar in February 2008. There were also territorial disputes between Qatar and Bahrain until 2001, when the International Court of Justice finally ruled on it (Economist Intelligence Unit, 2010).

the first agreement with Great Britain in 1868. The ruling families continued from the pearling era, when picking pearls from the Persian Gulf was the main economic activity, to the exploration and production of oil, and until independence. This continuation created an element of stability. The Emir selects his heir, who is always a male son, but does not have to be the eldest son (Economist Intelligence Unit 2010).

Stability in Qatar does not come without an element of threat, however. Most threats to the political leadership came from the ruling family itself, as was the case in most other Gulf countries<sup>46</sup>. Sheikh Khalifa bin Hamad Al-Thani deposed his cousin Sheikh Ahmed bin Ali Al-Thani as Emir of Qatar in 1972. The current Emir, Hamad bin Khalifa deposed his father in a bloodless coup in 1995 (Al-Kazi 1983). Some elements in the Qatari ruling family resented the ousting of the previous Emir. Although this source of threat began to wane, domestic threats from the ruling and allied families continued to represent a source of tension (Rathmell and Schulze 2000).

Education reform and broader social inclusion in education and beyond could be understood within the context of the Qatari leadership's intention to strengthen and broaden its social basis of support. One way to counter existing challenges was to appeal to the younger generations, who are often Western educated and cosmopolitan. They populate the bureaucracy, armed forces, and the private sector (Rathmell and Schulze

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46. During the few years since their independence, Gulf states have witnessed a number of power transitions based on intra-tribal and intra-familial dynamics. For example, Sheikh Zayed reached power in Abu Dhabi in 1966 after deposing his brother, Sheikh Shakhboub. Sultan Qaboos bin Said Al Bu Said of Oman deposed his father in 1970 in another bloodless coup (Al-Kazi, 1983). In 1987, the federal troops of the UAE intervened in an internal struggle in Sharjah to restore the rule of Shiekh Sultan Al-Qassimy after being deposed by his brother (Cause III, 1994).

2000). The younger generations understand Western systems, aspire for participation in their daily affairs, and are attracted by the idea of having their country stand out in the region as a dynamic leader.

Regional threats could be attributed to historical competition and animosity with the Saudi regime. Qatar's reforms allow it to assert its autonomy and distinctiveness from its GCC neighbors (Rathmell and Schulze 2000). In addition, one could argue that policy learning and regional competition play an important role in policy adoption. Qatar's neighbor, the United Arab Emirates, is a global commercial and business center. The literature on policy learning argues that the presence of such neighbors increases the chances of adopting similar policies, or policy diffusion (Boehmke and Witmer 2004; Volden, Ting, and Carpenter 2008). Although the UAE did not take as much liberal steps as has Qatar, and its education reform is not as comprehensive, one could argue that the presence of dynamic centers such as the UAE and Bahrain plays a role in generating regional competition and enhances learning of successful experiences.

As with the case of Egypt, domestic economic challenges, mainly unemployment among nationals, play an important role as a catalyst for education reform. Another important issue in Gulf countries is that of foreign labor, who are growing to represent majorities in a number of these countries. Since Qatar's population is already small and the importation of foreign labor has contributed to its economic growth and is appealing to the corporations working there given the lower salaries and flexible terms, in addition to being important sources for needed skills, Qatar is more interested in education reform as a road to increasing employment opportunities for nationals compared to other



regulatory approaches to restrict the employment of non-nationals such as quotas (Samman 2003).

### Conceptual Framework

The framework I use for comparing education reform and institutional structures in Egypt and Qatar was developed by the World Bank to assess the education quality assurance system in Chile (The World Bank 2007, 2009). This framework is based on identifying a number of functions that should be defined and assigned to a number of participants in the education system. In other words, this framework looks at the institutional distribution of roles and responsibilities for effective quality assurance in education. The participants identified in this framework are: students, teachers, principals and school administrators, schools, local governments (districts and municipalities), regional governments (states and provinces), and the national government. This framework does not include the role of the family, as important as this institution is for the success of any educational system. The reason is that it is difficult to regulate the participation of parents in the educational process (The World Bank 2007).

The functions that need to be defined and assigned to particular participants for a successful educational quality assurance system are: (1) Performance Standards, (2) Performance Evaluation, (3) Performance Reporting, (4) Impact Evaluation of Education Policies and Programs, (5) Requirements to operate, (6) Ensuring Adequate and Equitable Resources, (7) Autonomy, Intervention, and Support, and (8) Accountability and Consequences. These functions will be explained below. Two questions are central

for this conceptual framework: (a) Does the key function of quality assurance exist for this participant of the education system? and (b) if so, which institution/individual is responsible for defining or mandating this function? These two questions should be addressed with regards to each of the cells in Table 27. If the function is not defined for any given participant, the cell is left empty (The World Bank 2007).

The functions in Table 27 can be defined as follows (The World Bank 2007):

1. *Performance Standards*: These are established targeted performance levels for each participant in the production of education quality.
2. *Performance Evaluation*: methodologies to assess the extent to which individuals and institutions in the system meet the agreed upon standards. These include methods to measure what students know and are able to do. They also include appraising the performance of teachers and schools' administrators, in addition to frameworks for analyzing institutional performance, such as the ability of schools to meet the learning needs of all their students.
3. *Performance Reporting*: An effective education system should have established processes for disseminating the outcomes of performance assessments. For example, the outcomes of student evaluations can be made available to students themselves, their parents or guardians, to their teachers, and to administrators. Also teacher and school assessments can be made available to local officials and parents depending on the setup of

Table 27. Participants and Functions of Education Quality Assurance Systems

	Students	Teachers	School directorates	Schools	Local governments	State/provincial government	Regional government	National government
Performance standards								
Performance evaluation								
Performance reporting								
Impact evaluation of policies and programs								
Requirements to operate								
Ensuring adequate and equitable resources								
Autonomy, support, and intervention								
Accountability and consequences								

Note: Reproduced from the World Bank (2007).

accountability mechanisms and the perception of the role of the market in education quality assurance.

4. *Impact Evaluation of Policies and Programs*: an effective educational quality assurance system should have methodologies to regularly evaluate the impact of policies and programs and to incorporate this information into existing and new policies and programs. Some key question in this regard include whether the programs in place raise student outcomes, such as retention and labor market outcomes, what processes are used to achieve these outcomes, and at what cost. Impact evaluation mechanisms need to be designed before policies and programs are implemented. Once a program is introduced, it becomes difficult to introduce an evaluation strategy.
5. *Requirements to operate*: These are norms and rules for entry and operation in the system for individual and institutional participants. Examples are age entry requirements for students, professional requirements for teachers, and basic conditions that all schools have to meet in order to be allowed to operate.
6. *Ensuring Adequate and Equitable Resources*: These are management, financing, and administrative procedures that direct resources to achieve established standards. While ensuring adequate and equitable resources depends on the macroeconomic situation at large, which affects the total amount of resources allocated to the sector, there is still scope for education participants to make policy decisions that affect the allocation and distribution of resources. These decisions range from school financing mechanisms, such

as whether funding is going to be on a per-student basis or pre-established norms, to processes whereby resources are channeled to each of the individuals and institutions in the system.

7. *Autonomy, Intervention, and Support*: Autonomy refers to freedom to set policies and manage resources. Sometimes teachers and school administrators will require technical and/or pedagogical support, as well as mechanisms to coordinate with various governmental levels. It is important to have established instruments to delineate these factors (autonomy, intervention, and support) in order to assist individual and institutions in meeting performance standards.
8. *Accountability and Consequences*: Finally, an effective quality assurance system must have mechanisms in place for rewarding and sanctioning participants based on their ability to achieve the specified standards.

It is important to note here that countries can have different distributions of roles between the central government and the local levels, including schools. Countries with different degrees of (de)centralization, or school autonomy relative to government control, can still have successful quality assurance systems if the main functions are well defined for all actors in the system. These different distributions are referred to as instructional visions. These visions are labeled: (a) Limited State, (b) Quality Contracts, (c) Differentiated Instruction, and (d) Managed Instruction. With the exception of the first vision, there is evidence that each of these visions can achieve successful systems of quality assurance. The decision as to which instructional vision to adopt can be based on

social, political, cultural, and historical reasons (The World Bank 2007, 2009). Figure 13 below shows these instructional design options on a continuum that ranges between school autonomy and central government control.

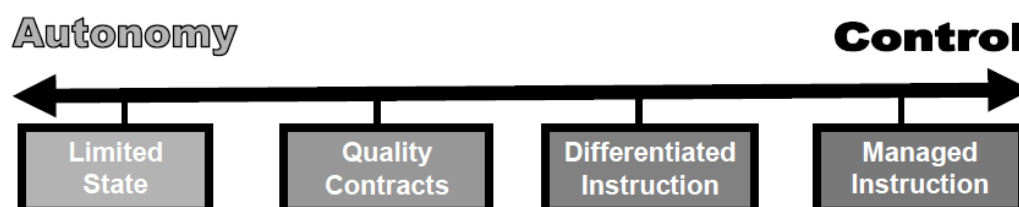


Figure 13. Four Instructional Visions along a Continuum of School Autonomy: Central Government Control. Reproduced from the World Bank (2009).

These visions imply different distributions of quality assurance functions across institutions, ranging from the Central government to the schools. Figure 13 shows a gradual movement from a limited state vision at one end of the continuum to one of centralized control by the government represented by Managed Instruction along with a reduction in school autonomy at the other end (The World Bank 2009). As mentioned above, there is no one vision that is more likely to produce better quality outcomes, with the exception of the Limited State Model, where evidence found no high performing education systems functioning under this model. This means that the state should always have a role in education quality assurance (The World Bank 2007).

The main two requirements for success in quality assurance could be identified as consistency and separation of functions. Consistency means that once the country chooses a particular instructional model, it should be consistent in applying all its major dimensions through the inclusion of all the main participant. Success in quality assurance also requires having an institutional separation of the bodies responsible for policy

making and service provision, for monitoring and evaluation, and for oversight (The World Bank 2007). I review these four models briefly below, and then discuss how Egypt and Qatar fall on this continuum (The World Bank 2007).

1. *The Limited State Model*: this model is based on the belief that market forces can act as a quality assurance instrument with minimal state intervention. The role of the central government is limited to (a) establishing minimum operation requirements and reporting standards; (b) financing schools on a per-student basis; and (c) providing information to facilitate informed school choice. Schools have discretion over the choice of performance standards and assessment mechanisms, and the model of instruction. On the other hand, families and students have the choice to decide on which schools to attend. The foundation of this model is based on the perfect market approach, where freedom of entry and exit of schools and perfect information would insure that only good schools will survive while the poor performers will be driven out of business due to lack of demand. Chile was identified as a country following this model by the World Bank (2007).
2. *Quality Contracts*: In addition to the functions specified in the Limited State Model, governments following the Quality Contracts Model are responsible for (a) granting and revoking operating licenses; (b) establishing standards for performance and performance assessment; and (c) implementing school performance assessments. Under this model, the state is assumed to be able to affect the quantity and distribution of schools through granting and revoking

contracts. But market forces still play an important role in this allocation since the decision to apply for establishing new schools remains demand driven.

While schools according to this model have to comply by established performance standards, they still hold discretion over the choice of which instructional models and evaluation methods to use. New Zealand is an example of a coherent application of the Quality Contracts Model, as state schools, which serve 96% of all students, establish individual school charters with specific goals and targets for student outcomes.

3. *Differentiated Instruction*: there is a significant increase in the quality assurance functions performed by the state under this model. In addition to the functions performed under the Quality Contracts Model, the state is responsible for (a) establishing standards for staff accreditation; (b) coordinating among schools to guarantee a balance of educational options; (c) intervening selectively in educational establishments; and (c) providing services for schools and professional development options for staff. The autonomy of schools is limited to defining their instructional model, with the possibility of also having autonomy over human resources such as the termination of personnel. The state is expected to play an active role in creating networks of information sharing to create successful models and programs. The government decides on the ultimate number and distribution of educational establishments. But market forces continue to play a role, although to a lower degree compared to the previous models, as families and



students are still allowed to choose which schools to attend. The main difference between the Differentiated Instruction and the Quality Contracts Model is that in the former the state actively intervenes to improve the quality of education rather than simply revoking the contract. Examples of systems which use this model are England, Wales, Northern Ireland, Finland, Spain, Massachusetts/Boston, and Texas/Houston. These systems allow an array of instructional models to coexist and base their intervention on school performance.

4. *Managed Instruction*: under this vision, the central government takes control over practically all functions of quality assurance. The government designs a central statutory instructional model and centrally assigns students to schools. Therefore, school services and professional development options are not diverse, but uniformly targeted to the instructional model in place. Similarly, intervention in low performing schools is uniform in nature. By extension, market forces do not play any significant role in this Model. Schools act as implementing agencies for the policies designed at the central government level. The Republic of Korea follows a Managed Instruction Model, where the central government establishes a national curriculum, performance standards, and an instructional model. The government authorizes and publishes school textbooks and provides them to students free of charge. It also provides continual professional development and school improvement services in order to guarantee adherence to the instructional model. Students are assigned to

schools within their residential neighborhoods by lottery, which limits any direct role for market forces.

### Instructional Visions in Egypt and Qatar

My purpose here is to place the Egyptian and Qatari systems on the Instructional Vision continuum discussed above. The Egyptian system opts for a Managed Instructional Vision. The central government establishes a national curriculum; authorizes, prints, and distributes textbooks free of charge for students; determines instructional models; and sets standards and expectations for student learning and performance expectations. The presence of high-stakes, nation-wide public exams that determine movement from one educational level to the next, as well as University admissions, qualifies Egypt to be classified in the Managed Instruction model. The main aim of professional development is to help teachers and schools comply with the instructional model designed at the central level. Students are assigned to public schools based on their areas of residence (Vegas, Paglayan, and Dewidar 2010).

Qatar's Instructional model, on the other hand, is an example of the Quality Contracts model. Independent Schools, the main innovation of the Education for a New Era Reform Program, are charter schools. These are publicly-financed, privately-managed schools. The government encouraged potential administrators to apply for establishing Independent Schools, in addition to encouraging public schools to change to Independent Schools' status. The first generation of Independent Schools were 12 schools that opened in 2004 under three-year contracts. Twenty one more Independent Schools opened in 2005 as Generation II, and another 13 in 2006 as Generation III (Brewer, et al.

2007). According to the SEC website, Generation 7 of Independent Schools has been launched. There are currently 102 Independent Schools in Qatar. Additionally, 77 former Ministry of Education schools were converted into Independent School status.

The government established nation-wide standards in four fields: Arabic, English, Math, and Science. Independent Schools are responsible for meeting these standards, and the inability to comply can threaten the continuation of the contract. But schools have broad freedoms in choosing their curricula, instructional models, and professional development programs. Market forces are supposed to play a role through giving parents and students the freedom to choose which schools to join. Theoretically, this is expected to drive low performers out of the market due to low enrollments, leaving only the high-performers.

#### Education Quality as a Driving Principle in Egypt and Qatar

Despite differences in Instructional Visions, Egypt and Qatar focus on similar issues in their reform efforts as evidenced from the review of the documents highlighted earlier. For example, both countries show focus on quality, school-based reform, and curriculum development. Both systems also show attention to decentralization, developing monitoring and evaluation mechanisms, creating student-centered contexts for enhancing student learning, increasing local participation, and strengthening communication.

The focus on quality is a guiding principle in educational development in almost all Arab countries (The World Bank 2008). Curricular and performance standards are at

the center of this focus. Egypt's NSP identifies 12 priority programs that are classified into three groups. The first group is the Quality Programs, which has School-Based reform, at the core. The other two programs in this group are Curriculum Reform and Human Resources Development. Introducing ICT, monitoring and evaluation reform, school construction reform, and the institutionalization of decentralization are part of the second group: Management programs. In Qatar, Independent Schools are given wide discretion in choosing their instructional models, curricula, and evaluation techniques as long as they abide by their contracts with the Education Institute. Qatar's ENE is based on autonomy, accountability, variety, and choice<sup>47</sup>. The Education Institute and Evaluation Institute work on monitoring standards, evaluating performance, and reporting results in order to ensure quality.

The main development and cornerstone of reform in both countries is the establishment of standards to guide the educational process. Egypt's MOE issued the National Standards for Education in 2003 with the aim of establishing comprehensive quality education standards and raising awareness about quality learning. The standards

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47. These terms can be defined as follows: (1) Autonomy - independent schools function autonomously, subject to time-limited contracts. (2) Accountability - Independent schools would be held accountable to the government through two mechanisms. First, schools would apply for Independent status and enter into a contractual arrangement. Regular audits and reporting mechanisms are used to monitor compliance. Second, schools would be evaluated regularly through a set of measures, including standardized student assessments. (3) Variety - all interested parties are encouraged to apply for independent school status, including existing public and private schools. The scientific complex schools, Ministry vocational and scientific schools that functioned in a semi-autonomous way since their establishment in 1999 and taught most of their classes in English, could also apply to convert to Independent status. (4) Choice - Once parents were given information on school characteristics and outcomes, they would be able to choose the Independent school that best fits their children's needs. Competition for students and resources should force all government-funded schools—traditional and Independent—to be more responsive to parents' demands (Brewer, et al., 2007; Gonzalez, et al., 2009).

cover five domains: (1) Effective and Child Friendly Schools, (2) The Educator, (3) Management Excellence and Institutional Culture, (4) Community Participation, and (5) Curriculum and Learning Outcomes<sup>48</sup> (UNESCO 2006). In Qatar, the government established four curricular standards that schools have to abide by in Arabic, English, Math, and Science. Schools also have to abide by certain legal and contract regulations in order to continue functioning (Brewer, et al. 2007; Brewer and Goldman 2010; Gonzalez, et al. 2009; Guarino, et al. 2009).

Despite these similarities, Instructional Visions do have an effect on the distribution of functions and allocation of resources. For example, while standards remain central in the Education systems and reform efforts in Egypt and Qatar, curricular development is the sole responsibility of the Ministry of Education in Egypt. On the other hand, the responsibility for curriculum development and the choice of instructional methods shifts to schools based on the specified standards in Qatar. More interestingly, the very fate of the Ministry of Education in Qatar had to depend on the progress of the reform. If a large number of Ministry schools were to convert to Independent school status, the Ministry could downsize or even be abolished, which was finally achieved in 2009. If this had not happened, the Ministry could have remained in place, perhaps as an operator of a system of Independent schools with a mix of characteristics, some reflective of the existing government schools and some new<sup>49</sup> (Brewer, et al. 2007). The availability

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48. Egyptian schools apply for and receive accreditation based on these standards.

49. MOE schools have been gradually transforming into Independent School status. Emiri decree number 14 for 2009 mandates that all MOE schools should be transformed into the modern independent

of financial resources and training opportunities for Ministry teachers that allows for joining Independent Schools are among the factors that allowed for a smooth transition into the new system (Hilgendorf 2007).

### Conclusion

Two forces are pulling Arab countries in opposite directions with regard to education reform. Forces supporting the maintenance of the status quo include the formal and informal institutions for getting things done, as well as governmental, bureaucratic, and business forces that have interest in the established systems. On the other hand, the youth bulge, globalization, the rising costs of labor market dysfunctions, public discontent with the status quo, and international attention to education in the Arab world, are pulling in the opposite direction. The question to ask is which countries are better able to build on the opportunities and ride the tide of change, and which are more tied to the past by various institutions and interlinked interests.

Both Egypt and Qatar are dedicated to quality education and governance reform of their educational sectors. Both countries have achieved impressive quantitative improvements, increased enrollment, and narrowed the gender gap. Both of them, however, suffer from qualitative shortcomings reflected in scores in international

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schools under the SEC. Many of the staff members, buildings and inner workings of the schools will remain the same except for their affiliation to the SEC. While preparing their staff and facilities for the transformation, MOE schools will be operating as semi-Independent schools. Semi-independent schools are led by an executive team established to oversee the administrative and educational issues involved in the transition to full independent status. This preparation includes training for principals, deputy principals and counselors who wish to work in leadership roles, such as principal or school coordinator, in independent schools. It also includes a Teacher Training track intended for teachers and administrators from semi-independent schools who wish to join the independent schools (Education for a New Era magazine, 2010).

standardized exams, rising unemployment, and continued lack of much needed skills required in the labor market. The differences in the two countries' demographics and political context represent important determinants of their reform efforts. After establishing the theoretical and conceptual frameworks in this chapter, I will move on in the next and final chapter toward applying this framework.

CHAPTER 6

REFORMING INCENTIVE STRUCTURES:  
EDUCATION QUALITY ASSURANCE  
SYSTEMS IN EGYPT AND QATAR

Introduction

This chapter applies the theoretical framework presented in the previous chapter. I start by reviewing the institutional structures responsible for quality assurance in both Egypt and Qatar. After reviewing these structures, I develop a set of hypotheses about the effects of exogenous variables, history, and political stability. These hypotheses address what we can expect to find about the manner of division of functions based on the socioeconomic and political context of each of the two country cases. I then move on to apply the conceptual framework to the quality assurance systems in each country. In applying the conceptual framework, I start by presenting which institutions perform which quality functions with regard to students, teachers, and schools. I then present the role of each of the quality assurance institutions in performing quality functions for the main participants in the education process in each country – students, teachers, schools, local authorities, and the national level. After presenting each country’s case, I conclude by revisiting the hypotheses developed earlier.



### Institutional Design of Educational Quality Assurance in Egypt

The administrative structures managing quality assurance in Egypt are headed by the Ministry of Education (MOE). Figure 14 shows the main authorities responsible for educational quality management in Egypt (Vegas, et al. 2010).

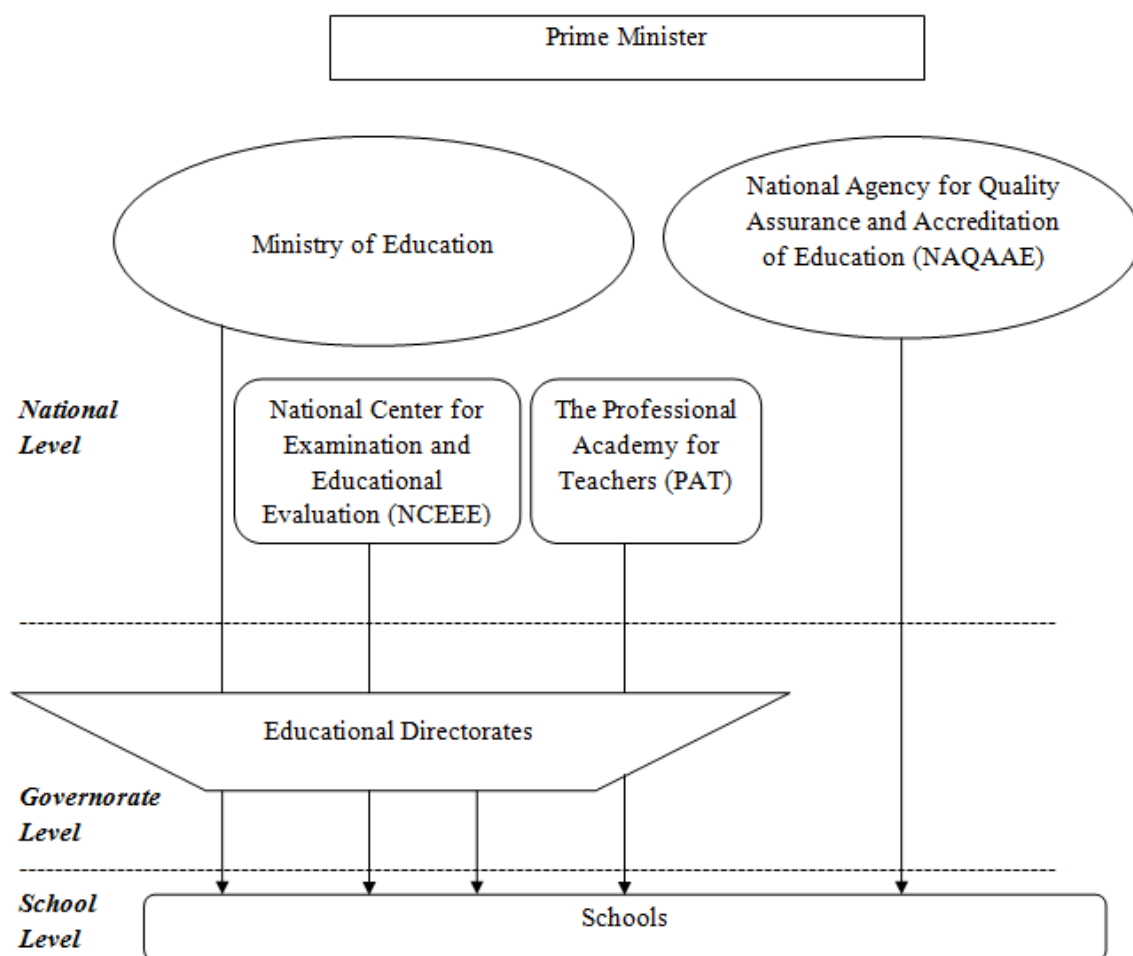


Figure 14. Organization structure of Egypt's quality control system. Reproduced from Vegas, et al. (2010).

The MOE is the most important policy making authority, and it reports to the Prime Minister. It sets performance standards for all education system participants, as well as non-performance requirements for schools and teachers. The Ministry administers the public budget for education. Through the education directorate in each governorate, the Ministry channels funds to schools, administers schools, and provides technical support to teachers. In addition to its policy making functions, the Ministry oversees compliance with education policies and regulations. It is legally responsible for the development and administration of the high school diploma exam (Thanaweya 'Amma) – the high stakes end-of-secondary school exam that determines access to tertiary education. The Ministry also supervises teaching and learning through the Education Directorates (Vegas, et al. 2010).

The National Center for Examination and Educational Evaluation (NCEEE) was created in 1990 as a semi-independent organization that reports to the Minister of Education. It also has oversight, monitoring, and evaluation functions. One of its main functions is to develop, test, and apply student assessments at the basic and secondary levels. In line with this responsibility, it provides advice to the MOE on the development of the Secondary Certificate examinations – the table of specifications of the exam, choice of exam writers, quality of the exams, and provides technical support on scoring and investigating problems and complaints from students regarding test content and level of difficulty. It is also responsible for providing training to educational institutions to develop their capacity in assessing student learning according to national standards,

conducting rigorous research on education, and evaluating individual schools using not only data on students, but also on educational processes (Vegas, et al. 2010).

In 2007, a presidential decree established the National Agency for Quality Assurance and Accreditation of Education (NAQAAE) as the accrediting body for all Egyptian educational institutions. It is an independent and autonomous regulatory institution that reports directly to the Prime Minister and has both policy-setting and oversight responsibilities. Regarding pre-University education, the Agency is responsible for governmental schools, private schools, and Islamic institutes (The the National Agency for Quality Assurance and Accreditation of Education - Egypt 2010). In order to conduct school performance evaluation, NAQAAE sets standards against which to measure the institutions' educational quality. NAQAAE grants or denies accreditation based on these evaluations. NAQAAE is also responsible for awareness raising regarding the importance of quality in education, developing guidelines for self-evaluation among schools, reporting to schools on their performance, and, through these reports, providing guidance for educational improvement (Vegas, et al. 2010).

Finally, assuring the quality of teachers is the primary responsibility of the Professional Academy for Teachers (PAT), which was created in 2008 and reports to the Minister of Education. Its responsibilities include setting performance standards and requirements for becoming a teacher, establishing a system for hiring, licensing, and promoting teachers based on these standards and the teaching profession's code of ethics. PAT evaluates teachers against the standards and grants licenses accordingly. It also

accredits the institutions that provide professional development opportunities for teachers according to international best practice (Vegas, et al. 2010).

The Ministry of Education established the Special Cadre for Teachers that bases the career advancement<sup>50</sup> and financial rewards of teachers on merit rather than seniority. The Teachers' Cadre establishes internal and external evaluation processes. Internal evaluation is achieved through (1) the school action plan and self-evaluation<sup>51</sup>, (2) the reporting system of the school quality and training unit, (3) the School Management System (SMS)<sup>52</sup>, and (4) teacher's portfolio, which will contain teachers' certificates, self-evaluation reports, students' achievement records, and headmasters and supervisors' reports. Externally, evaluation is achieved through (1) NAQAAE and (2) teacher performance indicators, through the Education Management Information System (EMIS)<sup>53</sup>. The national standards define the knowledge, skills, and dispositions that

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50. The teachers' career ladder according to the cadre is as follows: (1) Assistant teacher, (2) Teacher, (3) First teacher, (4) First teacher "A", (5) Expert teacher, (6) Senior teacher (Ministry of Education - Egypt, 2007).

51. In order to achieve accreditation, and based on the school-based approach, schools are required to perform periodic self-evaluations, and develop a school improvement plan, which reflects the school vision and mission, social climate, sustainable professional development, teaching and learning community, and ensuring quality and accountability. The Training and Evaluation units within schools are responsible for the management of the self-evaluation process.

52. The SMS provides information at the school level on students, teachers, and administrators. According to the National Strategic Plan for Pre-University Education, the goal is to strengthen this system at both the school and *Idara* levels in order to improve the setting of school priorities and defining area for action based on the available information.

53. The EMIS is designed to provide educational statistics, performance indicators, and projections to support decision making at the central level. According to the National Strategic Plan for Pre-University Education, the goal is to strengthen the EMIS at the *Mudiriya* as well as the central levels to provide a clearer picture of the system qualitatively and quantitatively (Ministry of Education - Egypt, 2007).

teachers need to have in order to perform satisfactorily at the Novice Teacher level, which is the entry level for teachers. These standards govern the criteria for assessing teachers' performance at this level as well as the professional development opportunities available to them (Ministry of Education - Egypt 2010).

The Special Cadre and PAT aim at coaching teachers for professional development based on crystal-clear and objective norms. The cadre and PAT have been realized through amending certain provisions of the Law of Education No. 139/1981 by way of Law No. 155/2007. PAT was organized by Presidential Decree 129/2008<sup>54</sup>. In order to advance from level to the next in the cadre, teachers will have to participate in well-defined professional development activities and pass specific tests in order to get licenses. Professional development programs take place at the school level within the school-based reform program or at the *Muddiriya* and *Idara* levels (Ministry of Education - Egypt 2007).

It is worth noting here that the Special Cadre of Teachers has faced a number of difficulties since its inception. First of all, a number of teachers and teacher groups protested against it as "humiliating." They thought that, after years of working in the teaching profession, it does not make sense to get examined to receive a license. This could be perceived as reflecting a lack of communication between the Ministry and some central groups it should have involved in decision making. Second, the Cadre also faced financial difficulties, and the increases in salaries it provided were insignificant given the

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54. Law 155/2007 stipulated that the President of the Republic shall issue a Presidential Decree organizing the Professional Academy for Teachers as a body affiliated to the Ministry of Education.

already low salaries of teachers and the rapidly rising costs of living. A number of support staff protested to be included in the cadre, while others who passed the cadre protested the delay in receiving their promised financial increases. On the other hand, the tests that the Ministry administered included some complexities, beside administrative and technical mistakes (Maat Center for Peace 2009).

The functions of communications and data collection are mainly performed by the MOE. The Electronic Services Portal develops and manages various statistical data and educational indicators. The Citizens' Service is administered by the MOE in order to enhance the relations between the Ministry on one side, and the other participants of the education system on the other, mainly the students, parents, teachers, and administrators. The Citizens' Service is a department within the ministry and a web site on the Ministry's official website. From reviewing the website, it becomes clear that the Ministry's approach is based on one-way interaction between a provider (the Ministry), and a receiver (the other participants). The information that the MOE provides are focused on enrollments, changing schools or work places, and receiving complaints. The information needed for informed decision making and active participation regarding individual schools and instructional approaches are generally not available<sup>55</sup>. This could be attributed, at least in part, to the instructional vision which minimizes the role of the market in managing quality, which in turn reduces the value of information. But it could

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55. For example, the Egyptian Schools' Directorate under the Electronic Services Portal gives information on individual schools. However, when one chooses a particular school to search, the only information available is: the name, address, phone number, and e-mail address. Educational indicators at the level of governorates are macro, providing quantitative data on such criteria as enrollment, gender gap, class density, student-teacher ratio, etc.

also be attributed to a history of centralization and control by the MOE over the education system, including quality assurance.

#### Institutional Design of Educational Quality Assurance in Qatar

Qatar's ENE established parallel administrative structures to those of the MOE for the purpose of managing and ensuring quality. The MOE's main structures remained in place between the start of the program in 2002 and until 2009, when it was integrated into the structures of the Supreme Education Council (SEC). Since the beginning of the program, the main quality assurance institutions and responsibilities existed within the institutional makeup headed by the Supreme Educational Council. Figure 15 highlights these structures.

As highlighted above, the MOE has now ceased to exist as an independent body. Emiri Decree 14/2009 stipulated that the SEC will be responsible for all the rights, responsibilities, and financial resources under the MOE. The SEC also gained control of all possessions, buildings, equipments, etc. that belonged to the MOE. MOE employees were also transferred to the administrative supervision of the SEC. Article 22 states that the Minister of Education and Higher Education is also the Secretary General of the Supreme Educational Council.

The Supreme Educational Council in Qatar is the body responsible for the ENE and quality assurance system, and reports to the Emir. This institution is composed of representatives from the government, business, and academia, in addition to members from the ruling family. This represents a departure from the structures of the Ministry of

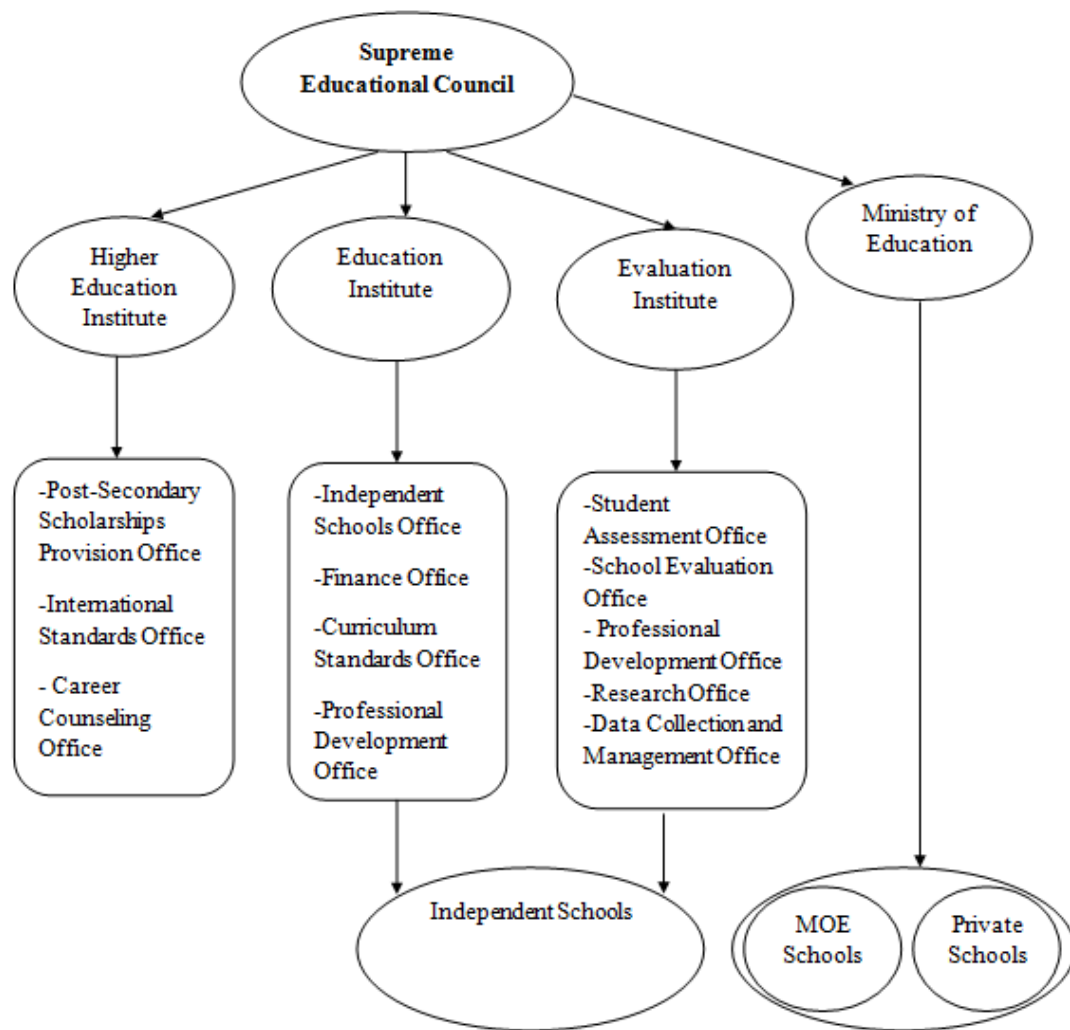


Figure 15. Organization structure of the Qatari independent school system.

Education, which were mainly composed of educators. The new structures reflect interest in linking the outcomes of the education system to its “consumers”: business and higher education institutes. The Supreme Educational Council is responsible for setting national education policy (Brewer, et al. 2007; Brewer and Goldman 2010).

The Education Institute oversees and supports the Independent Schools. It is responsible for (1) contracting the new schools and supporting their operation, (2)



allocating resources to Independent Schools, (3) developing national curriculum standards for grades 1-12 in Arabic, Mathematics, Science, and English, and (4) developing training programs for teachers in Independent Schools and promoting a supply of teachers, either from Qatar or abroad, who are able to teach according to the curriculum standards (Brewer, et al. 2007). The Education Institute also provides professional development opportunities. The Institute is responsible for making sure that the schools are fiscally accountable by monitoring their financial management through periodic reports and audits. In this sense, the Education Institute provides leadership, and is responsible for standards and sound financial management. The Education Institute houses the following offices (Supreme Education Council 2010a):

1. *Independent Schools Office (ISO)*: which provides guidance and support to Independent Schools through:
  - Establishing and updating Independent School guidelines.
  - Recruiting Independent School Operators.
  - Evaluating Independent Schools and presenting recommendations to the SEC.
  - Providing support and advice to the operators of Independent School.
  - Monitoring and enforcing the guidelines for Independent Schools.

In order to guarantee that schools are complying with their contract obligations, the Independent Schools Office performs compliance assessment reviews on a regular basis. The ISO maintains an Information Center that reviews complaints made by all stakeholders. It has the authority to intervene in case problems arise during the duration of the contract. Each Independent School's contract is

reviewed at the end of five years of operation, and renewal will occur only after a comprehensive review (Supreme Education Council 2010a).

2. *Finance Office*: This office distributes government funding to Independent Schools and monitors the use of those funds. Monitoring is accomplished through periodic reports as well as an annual, comprehensive report by an external auditor. The Office also administers ad-hoc grants to schools to use in the start up of innovative new programs. In addition, the Finance Office assists potential school operators develop a financial plan to submit as part of the application process to run a school.
3. *Curriculum Standards Office*: is responsible for developing and updating standards in four core courses: Arabic, English, Math, and Science. On the other hand, Islamic studies is a compulsory subject in all Independent Schools, and school operators are required to adopt the national document in this subject (Supreme Education Council 2010a).
4. *Professional Development Office*: is responsible for developing and implementing training programs for teachers to increase their ability to understand the curricular content in the four core courses. This Office is responsible for conducting needs assessments in each Independent School to tailor its programs to the needs of the schools and their staff.
5. *The Private Schools Office* is also a part of the Education Institute. It is responsible for licensing private schools and managing the Voucher Program that aims at increasing competition among private schools.

The second main body under the SEC is the Evaluation Institute, which monitors and evaluates all students and schools. It is responsible for (1) designing and administering national tests for grades 1-12 in the four subjects mentioned above (Arabic, Mathematics, Science, and English), (2) producing annual “school report cards” for distribution to parents and students, (3) operating the national education data system, and (4) performing special studies on schools and the progress of the reform program. The Evaluation Institute tests students in both the Independent Schools and government schools, as well as in some private schools. It also surveys students, teachers, parents, and principals in all these schools about school practices and perception of quality (Brewer, et al. 2007). The purpose of the Evaluation Institute is to achieve two main tasks: (1) helping teachers, schools, and students understand their performance and hence improve on it and (2) supply parents and policy makers with information to support their ability to make informed decisions. The Evaluation Institute houses the following offices (Supreme Education Council 2010b):

1. *Student Assessment Office*: is responsible for the design and implementation of the Qatar Comprehensive Educational Assessment (QCEA) – a program designed to measure student learning through annual standardized tests to students of Independent Schools<sup>56</sup>. The first of these tests took place in April

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56. The QCEA is part of an attempt to overhaul the testing and assessment system to provide better information to the public and policy makers, as well as feedback for teachers. The purpose is to promote school improvements, informed parental choice and decision making, and help students tailor their instructions to the needs of their students. This new assessment system became known as the Qatar Student Assessment System (QSAS). The QCEA is one component of the QSAS – a standardized end-of-the-year exam administered to students in grades 1-12 (Brewer, et al., 2007).

and May 2004<sup>57</sup>. As data accumulates from successive exams, collective data on student test scores are made available, together with a range of other information about schools and their performance in the form of school report cards (SRCs) published by the School Evaluation Office. These report cards are posted on the SEC website.

2. *School Evaluation Office*: this office is responsible for overseeing the evaluation of all schools in Qatar. Data is obtained from “students, parents, teachers, principals, school reports and other resources, as well as independently obtained information from field visits to schools.” This information is used to analyze, evaluate, and report on the performance of schools individually and collectively. This office makes data available through the School Report Cards, which provide information on all Independent, semi-independent, private Arabic and international schools. SRCs provide data on academic achievement, frequently used teaching methods, parental involvement, facilities and resources, among other things. These cards are made public. The School Evaluation Office also produces Triennial School Reviews (TSRs), which include data from ongoing school monitoring, school self-review, specially commissioned reviews, and the annual SRCs. The TSRs

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57. At that time, curriculum standards were not yet available – they only became available in 2005. Therefore, a two-stage plan was adopted to develop the assessments through initial instruments and fully aligned instruments. The 2004 QCEA was administered before any Independent Schools were open and was used as a benchmark to assess the development of student performance under the new system. The 2004 QCEA focused on core knowledge in Arabic, English, Math, and Science measured against general standards determined by test companies. The aligned assessments started in 2005 (Brewer, et al., 2007).

focus on selected areas of school functioning and performance such as “leadership and management, teaching and learning, standards and achievements, curriculum and learning environment, staff deployment and development and the relationship between parents, community and the school” (Supreme Education Council 2010b).

3. *Data Collection and Management Office*: this office is responsible for “the planning, design and deployment of all resources needed for the successful collection of data related to the education reform effort.” In May 2004, the DCM Office administered the first Qatar Comprehensive Educational Assessment (QCEA)<sup>58</sup>. It also conducted the first Qatar Comprehensive School Survey (QCSS) – a questionnaire to students in grades 3 through 12, parents, teachers, and school social workers. The Office also maintains the Qatar National Education Database System (QNEDS) – a secure and confidential dataset of the results of tests and questionnaires.
4. *Research Office*: this office will lead the design and monitoring of the Qatar National Education Data System (QNEDS). The Research Office also conducts studies on schools and the reform in general.
5. *Qatar Office for Registration, Licensing, and Accreditation (QORLA)*: launched in 2008. This office is responsible for licensing teachers and school leaders, who receive licenses based on their level of proficiency determined

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58. The DCM Office selects and trains proctors, establishes test security procedures, keeps records of students’ responses and forwards them to the testing contractors for scoring, etc.

by Qatar's National Professional Standards for School Teachers and Leaders, issued by the Education Institute. There are three levels: entry, professional, and advanced license.

### A Review of the Two Systems

Education reform is on the agenda of many Arab countries. Egypt and Qatar are no exception. As discussed earlier in this chapter, the imperatives of change for education reform are pushing for focus on outputs, quality, and accountability. The youth bulge, the pressing need for creating more employment opportunities, economic liberalization, public discontent with traditional systems of education, and international attention to education reform and curricular content in Arab countries have created an environment encouraging a focus on quality. This is especially the case given the fact that Arab countries at large have achieved substantial gains in terms of such quantitative measures as expanding access and narrowing the gender gap. Now that Arab countries have arguably “graduated” from this stage, the question here is to explain why some countries are faster and more adaptive, while others are slow.

Before discussing differences, it makes sense to start with exploring similarities. The systems in Egypt and Qatar give special attention to quality. Both systems are school-based. Accountability, community participation through BOTs, and data management are central in both systems. Focus on the roles and responsibilities of schools leads to a parallel focus on developing their abilities to conduct their own self evaluations and prepare estimates of their budget requests. Both systems are standards-based, attempting to align the major dimensions of schooling, such as curricular

development, assessment, professional development, and school accreditation, with established standards that are developed using national and international expertise.

But we also find some important institutional differences. As noted earlier, there are differences in the Instructional Visions between the two countries, which mean that it makes sense to expect differences in terms of the role of the market, information and data management and dissemination, and accountability mechanisms. As noted earlier, there is evidence that both visions could achieve successful quality assurance systems as long as there is attention to all essential function, and an institutional separation of the functions of policy making and service provision, for monitoring and evaluation, and for oversight. A quick review of Figures 14 and 15 tells us that this separation is clearer in the case of Qatar. The ENE is organized according to an umbrella institution, the Supreme Educational Council, which is responsible for establishing broader policies and regulations, and overseeing them. The Education Institute is responsible for finance, standards, and professional development – the part related to service provision through Independent Schools. The Evaluation Institute is responsible for the outputs and outcomes of the system through monitoring and evaluation. Data collection and dissemination is an integral part of evaluation given the role played by market forces in a Quality Contracts Instructional Vision. According to this system, as described earlier, the government is responsible for providing information to guarantee informed public choice, and the assumption is that market forces will only keep good schools and drive out the poor performers due to lack of demand. The Research Office within the Evaluation Institute conducts research to evaluate the outcomes of reform.

The Egyptian system is based on a Managed Instruction Vision. There is nothing wrong with having a centralized system as long as the separation of functions is guaranteed and duplication is avoided. However, the large size of the Egyptian system and its long history have arguably led to a compilation of new institutions over older ones. For example, I explained earlier that the last time the MOE set standards was in 2003. But the NAQAAE was established to develop standards for accrediting schools. PAT also sets its own standards for evaluating teachers' performance. This duplication, and the absence of coordination among these bodies, is expected to lead to confusion (Vegas, et al. 2010).

In addition to confusion and duplication, we can also find non-separation of policy making and oversight functions. The Egyptian National Strategic Plan for Pre-University Education stresses that the MOE is shifting toward focusing on policy making on the macro level while decentralizing other functions to the subnational, local levels, and/or independent agencies. However, the MOE maintains its monitoring and evaluation functions, despite the creation of NCEEE, NAQAAE, and PAT that are responsible for evaluating students, schools, and teachers respectively (Vegas, et al. 2010).

In the remaining part of this chapter I will employ the conceptual framework to explore these differences more thoroughly and link them to the hypotheses I will develop in the next section. One important point to note before proceeding is that I do not evaluate the performance through employing this framework. My only purpose is to examine whether quality assurance functions are defined, whether specific institutions are assigned to perform these functions, and whether the institutional framework and/or



practice reveals duplication and/or non-separation of these functions. An examination of how quality assurance functions are actually performed could reveal more differences. But I do not delve into details of this point in the context of this study.

### Hypotheses

The framework I am using in this part of the study, as explained above, focuses on the governance dimension of education reform, through focusing on the administrative distribution of defined functions. Therefore, while differences in financial abilities between Egypt and Qatar still play an important role in our understanding of the reasons behind differences in design and implementation, focusing on the administrative dimension puts more weight on factors related to time, history, values, demographic characteristics, size of the bureaucratic establishment, as well as political interests. In other words, my point is that streamlining operations and division of function are the first steps toward achieving quality education, and are not critically dependent on financial resources as they are dependent on political will and the presence of a supporting executive environment.

The purpose of this part is to apply the knowledge and assumptions compiled throughout this work to understand which Arab countries are better able to respond to challenges and opportunities emanating from their domestic and international contexts. In other words, who can be a faster and more efficient responder? While each country is a unique case, the challenges facing Arab countries that act as imperatives for education reform, discussed earlier in this chapter, are to a certain extent common to all countries in the region. The youth bulge, labor market distortions, public discontent with education

outcomes, and international attention given to education content and policy in the Arab world are factors more or less acting across the board in Arab countries and pushing for reconsiderations of education systems at large.

The hypotheses I attempt to examine follow the same groups of variables that I used in Chapter 2: Exogenous Variables, history, and political stability. I present my hypotheses and the logic behind them in the following points.

### The Exogenous Variables Hypothesis

As discussed earlier, a large education sector in terms of number of students and bureaucratic structures means that change could threaten larger segments of the population. The number of affected parties is multiplied by the fact that students have parents, who are added to the affected parties, in addition to the related businesses that work in the fields of outside books, private tutoring, etc. The assumption here could be represented by Figure 16.

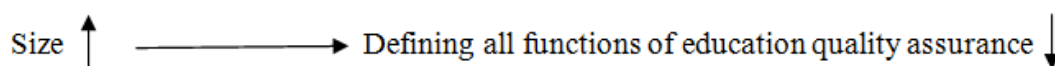


Figure 16. Hypothesis 1: The Effect of Size on Quality Assurance Functions.

The inverse relationship expected above is a function of the fact that a systemic change, which allows for including definitions of new functions and assigning them to specific participants, particularly impact evaluation and reporting, could jeopardize established norms and interests. Decades of focusing on quantitative expansion and inputs rather than outputs and outcomes mean that more needs to be done to include and

integrate the functions of evaluation, impact, and reporting. Therefore, some function of quality assurance might end up absent from a system where adding and/or developing quality functions have broader effects due to the size of the sector.

### The Time–History Assumption Hypothesis

The longer the existence of certain institutions, formal or informal, the more difficult it will be to change them. The expectation here is that new structures will be added to older ones if the system has been in existence for a long time. This assumption is presented in Figure 17.

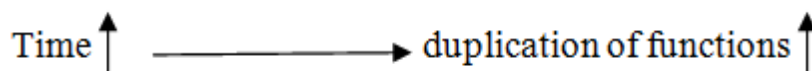


Figure 17. Hypothesis 2: The effect of history on quality assurance functions.

We expect duplication of functions; that is, more than one institution performing the same function, since it is difficult to completely abolish long-established institutions. Another expectation based on the time perspective, is that central institutions that gained power over time will maintain their authority and prerogatives. We can therefore expect that central government institutions that have been in existence for long to be responsible for more policy making, oversight (including monitoring and evaluation), and service provision functions (see Figure 18).

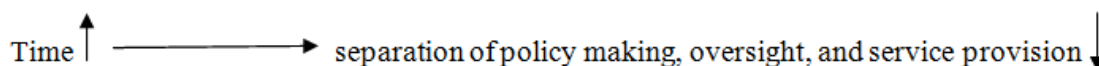


Figure 18. Hypothesis 3: The effect of history on quality assurance functions.

### The Political Stability Hypothesis

The political stability hypothesis is the inverse of the time/history hypothesis. Logically, a politically stable regime is expected not to feel compelled to maintain centralized control over the education system. This is expected to translate into a clear distribution of well-defined quality assurance functions, separation of policy making, implementation, and evaluation functions, and wider participation. This assumption is presented graphically in Figure 19.

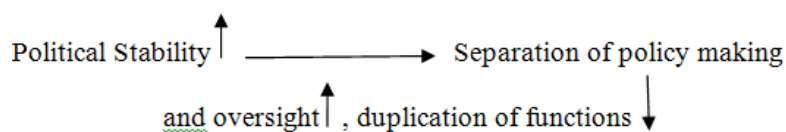


Figure 19. Hypothesis 4: The effect of political stability on quality assurance functions.

### Applying the Conceptual Framework

#### Egypt

Table 28 focuses on which actors perform the main policy setting and oversight functions for each of three main actors in the education process: students, teachers, and schools. This table aims at giving a general perspective of quality assurance functions in the Egyptian educational system.

A number of observations could be drawn from a quick review of this table. I mention them in the following points<sup>59</sup>:

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59. These points are based on: the author's reading of the laws and the National strategic Plan for Pre-University Education in Egypt (Egypt's Ministry of Education, 2007), Vegas, et al. (2010), and personal interview with Ahmed Dewidar, World Bank Consultant (December 2010).

Table 28. Education Quality Assurance Functions for the Main Participants in the Education System: The Case of Egypt

	Students	Teachers	Schools
Performance standards	<ul style="list-style-type: none"> <li>- The National Standards define required standards for students (MOE).</li> </ul>	<ul style="list-style-type: none"> <li>- The National Standards define required standards for teachers (MOE).</li> <li>- Professional Academy for Teachers (PAT).</li> <li>- NAQAAE</li> <li>- Teacher performance indicators, through the Education Management Information System (EMIS), at the Mudiriya as well as central levels.</li> <li>- Internal school evaluations (teacher's portfolios contain teacher's certificates, self-evaluation reports, students' achievement records, and headmasters and supervisors' reports).</li> </ul>	<ul style="list-style-type: none"> <li>- The National Standards define standards for schools (MOE).</li> <li>- NAQAAE sets standards for educational institutions.</li> </ul>
Performance evaluation	<ul style="list-style-type: none"> <li>- Annual exams take place at the school level.</li> <li>- End-of-stage exams take place at the governorate level (through the Education Directorates).</li> <li>- High school (Thanaweya 'amma) exams take place at the national (MOE) level.</li> </ul>	<ul style="list-style-type: none"> <li>- The MOE evaluates teachers through the governorate-based Education Directorates.</li> <li>- NAQAAE is responsible for evaluating teachers.</li> <li>- Professional Academy for Teachers (PAT).</li> </ul>	<ul style="list-style-type: none"> <li>- Internal evaluation through school self-evaluation, the reporting system of the school quality and training unit, and the School Management System (SMS): This is a requirement only for schools applying for accreditation.</li> <li>- External evaluation through the NAQAAE. Only for accreditation purposes. NAQAAE performs this function only when invited by a school applying for accreditation.</li> <li>- The NCEEE is responsible for evaluating schools: So far, the NCEEE has not performed this function.</li> </ul> <p>MOE through the Education Directorates.</p>

Table 28 continued

	Students	Teachers	Schools
Performance reporting	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- NCEEE</li> <li>- Education Directorates (Governorates)</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- PAT</li> <li>- Education Directorates (Governorates)</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- NCEEE</li> <li>- Education Directorates (Governorates)</li> </ul>
Impact evaluation of policies and programs	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- NCEEE</li> <li>- Education Directorates (Governorates)</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- Education Directorates (Governorates)</li> <li>PAT is absent.</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- NCEEE</li> <li>- Education Directorates (Governorates)</li> </ul>
Requirements to operate	<ul style="list-style-type: none"> <li>- MOE</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- Professional Academy for Teachers (PAT).</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE</li> <li>- Education Directorates</li> <li>- General Authority for Educational Buildings (GAEB) regarding schools buildings.</li> </ul>
Ensuring adequate and equitable resources	The funding going to education is determined by the Ministry of Finance based on negotiations with the Ministry of Education. The latter negotiates budget demands with Education Directorates, each negotiating its own budget. Funds from the MOE are channeled to Education Directorates, which in turn channels them to schools under their administration. <sup>a</sup>		
Autonomy, support, and intervention	<ul style="list-style-type: none"> <li>- MOE</li> <li>- Educational Directorates</li> </ul>	<ul style="list-style-type: none"> <li>- MOE<sup>b</sup></li> <li>- NAQAAE</li> <li>- Professional Academy for Teachers (PAT)</li> <li>- Educational Directorates</li> </ul>	<ul style="list-style-type: none"> <li>- MOE</li> <li>- NAQAAE<sup>c</sup></li> <li>- Educational Directorates</li> </ul>

Table 28 continued

	Students	Teachers	Schools
Accountability and consequences	-MOE - Educational Directorates - Idara level - Schools - NCEEE (advisory – putting specifications. In thanaweyya ‘amma it actually puts the exam).	- MOE - Educational Directorates - Idara level - Schools - PAT	- MOE - Educational Directorates - Idara level - NAQAAE

*Note:* Author’s reading of the law and the National strategic Plan for Pre-University Education in Egypt (Egypt's Ministry of Education 2007), and Vegas, et al. (2010). Dark-gray shading signifies policy-setting function. Light-gray shading signifies oversight function.

<sup>a</sup> Pilot projects which focused on decentralization and school finance reforms in the governorates of Luxor, Ismaailia, and Fayoum introduced two main changes. First, part of the funds typically allocated to schools for specific purposes were converted into “block grants” for school improvement, which allows the school to decide on how it will use this money. Second, new criteria to decide on the size of the block grant allocated to schools were introduced. These criteria include, in addition to the number of students in each school, the school’s average poverty rate, in recognition that students from lower socio-economic households will require more funding to improve their cognitive and non-cognitive abilities (Vegas, et al., 2010).

<sup>b</sup> The MOE funds a national professional development program for teachers and school principals (Vegas, et al., 2010).

<sup>c</sup> The NAQAAE established Quality Assurance Units (QAUs) and Technical Support Units (TSUs) at the *Idara* level to assist schools as they prepare for accreditation, and also play an important role in providing technical-pedagogical support. QAUs and TSUs report to the director of the *Idara*, who in turn reports to the Education Directorate. TSUs provide technical assistance to schools on the preparation of the accreditation portfolio according to the NAQAAE standards. After the portfolio is prepared, the QUA steps in to double check its quality and provide feedback on the extent to which standards are met (Vegas, et al., 2010).

- There is a clear duplication of functions. New structures are laid over old ones, with a clear absence of significant effort to reduce the functions of, or eliminate, the older structures. This is clear from the presence of the MOE in all the boxes, despite the fact that the National Strategic Plan stipulated that the role of the ministry is planned to focus only on policy making. By extension, we notice little separation between policy setting and oversight functions. For example, the MOE sets the performance standards, the latest where the standards established in 2003. The ministry, however, is also responsible for evaluation and impact analysis.
- Despite its direct role in education policy making and implementation, the MOE has little control over the education budget, as the final budget decisions are determined by the Ministry of Finance.
- Some functions are vaguely assigned, while functions expected to be performed by certain organizations are actually not assigned to them. This is clear with performance reporting and impact evaluation. The MOE's website has very limited data on the performance of schools and teachers, and almost no reports are issued about the progress or performance of either of them. The same holds true for the other organizations responsible for both functions – NAQAAE and PAT. On the other hand, while one would expect a role for PAT in studying the impact of teachers' training and accreditation, this is not even a function of this newly-established organization. By extension,



consequences of poor performance are not clear for schools or for the direction of the education policy at large.

- The important roles given to NAQAAE and NCEEE are compromised due to a number of main factors. The first, as mentioned above, is the duplication of functions with the MOE, which leads to confusion and the inability of the actors to figure out which standards they should be following. This is especially the case with NAQAAE, which establishes separate standards for education, with limited coordination with the MOE. The second factor is that the functions both agencies perform are more advisory and less obligatory than should be expected. NAQAAE mainly advises and reviews schools that are applying for accreditation, which still represent a small percentage of all Egyptian schools. The NCEEE advises on exam writing, but performs little to no role in terms of evaluation or training exam evaluators. Neither organization produces reports on the performance of schools and/or students, despite the fact that research and impact analysis is determined as part of their functions. As I will explain later, this could be attributed, in part, to the lack of institutional capacity. But it could also be attributed to a history of focusing on quantitative expansion and inputs as opposed to outputs. This focus is arguably ingrained in the system and there is a need for conscious effort to reverse this approach in favor of a focus on outputs and linking the outcomes of education to the broader economic and social environment. Finally, both institutions have limited capacity to influence policy given the absence of

tools for comparing performance or authority to recommend policy changes – other than denying accreditation in the case of NAQAAE.

One further observation is that not all the functions assigned are actually implemented. As with the case of NAQAAE and NCEEE, discussed above, this could be attributed to financial and institutional capacity limitations, as well as to an organizational culture that pays little attention to quality and impact analysis. This culture led to more focus on standards than impact evaluation and performance reporting. The argument that I made starting Chapter 3, is that this culture became institutionalized and difficult to reverse, and is reflected in the relations between the main institutions responsible for quality assurance. Furthermore, the absence of separation of policy and oversight functions, and the vagueness in assigning certain functions, trickles down into a disparity between the legal mandate and responsibilities on the one hand, and the actual implementation of these mandates on the other. Table 29 integrates these observations through focusing on the allocation of the main functions to the main organizations responsible for quality assurance in Egypt.

Table 29 provides a more comprehensive review of the functions performed by the main institutions involved in educational quality assurance. The table highlights six institutional structures: the MOE, NAQAAE, NCEEE, PAT, Educational Directorates, and schools. These institutional structures were defined earlier. Even for someone with no knowledge of the education system in Egypt, attention should be drawn to the almost continuous flow of black circles and x's under the MOE – symbols indicating that the function is assigned to this institutional actor. This eyeball observation reflects the.

Table 29. Legal Responsibility for Education Quality Assurance Functions: Distribution across Institutions in Egypt

		Ministry of education	NAQAAE	NCEEE	PAT	Education directorates	Schools
Performance standards	Students	●	●	X	-	●	●
	Teachers	●	●	-	●	●	●
	Schools	●	●	-	-	●	●
	Local authorities	●	●	-	-	●	●
	National system	●	●	-	-	●	●
Performance evaluation	Students	●	●	X	-	●	●
	Teachers and principals	●	●	X	●	●	●
	Schools	●	●	X	-	●	●
	Local/regional governments	X	X	X	-	●	-
	National system	X	X	X	-	-	-
Performance reporting	Students	●	-	X	-	●	●
	Teachers and principals	X	-	X	X	●	●
	Schools	X	●	X	-	X	X
	Local/regional governments	X	-	X	-	X	-
	National system	X	-	X	-	-	-
Impact evaluation of policies and programs	Students	X	X	X	-	X	-
	Teachers and principals	X	X	X	X	X	-
	Schools	X	X	X	-	X	-
	Local/regional governments	X	X	X	-	X	-
	National system	X	X	X	-	-	-

Table 29 continued

		Ministry of education	NAQAEE	NCEEE	PAT	Education directorates	Schools
Requirements to operate	Students	●	●	-	-	●	●
	Teachers and principals	●	●	-	●	●	●
	Schools	●	●	-	-	●	●
	Local/regional governments	●	●	-	-	●	-
	National system	●	●	-	-	-	-
Ensuring adequate and equitable resources	Students	●	-	-	-	●	●
	Teachers and principals	●	-	-	-	●	●
	Schools	●	-	-	-	●	●
	Local/regional governments	●	-	-	-	●	-
	National system	●	-	-	-	-	-
Autonomy, intervention and support	Students	●	-	-	-	●	●
	Teachers and principals	●	-	X	●	●	●
	Schools	●	-	X	-	●	●
	Local/regional governments	●	-	X	-	●	-
	National system	●	-	X	-	-	-
Accountability and consequences	Students	●	-	X	-	●	●
	Teachers and principals	●	-	X	●	●	●
	Schools	●	●	X	-	●	●
	Local/regional governments	●	●	X	-	●	-
	National system	●	●	X	-	-	-

*Note:* Author's reading of the law and the National strategic Plan for Pre-University Education in Egypt (Egypt's Ministry of Education 2007), and Vegas, et al. (2010). Circle bullet signifies that the institution is responsible for this function according to the law, and is carrying out this function in practice. X signifies that the institution is responsible for this function according to the law, but is not carrying out this function in practice. Hyphen signifies that the institution is not responsible for this function according to the law, and is not carrying out this function in practice. Dark shading signifies policy setting function. Light shading signifies oversight function.

historical domination of the MOE over education and continued interest in central control on the government's part, although the official policy of the ministry itself, as stated in a number of its documents, including the National Strategic Plan for Pre-University Education, is to limit the role of the ministry to policy making at the macro level. The similarly continuous black circles and x's under Educational Directorates also means that these institutions are supposed to be performing a large number of functions that are characterized as both policy setting, evaluation, and oversight functions. This could be attributed to the fact the Educational Directorates are administrative arms of the MOE that link the later to the local communities and schools

Another eyeball observation is the relatively large number of x's under certain functions, mainly impact evaluation – which lacks a single black circle. This reflects both limited resources and institutional capacity, as well as an absence of a vision that believes in a link between education policy on the one hand, and the outcomes of education both in terms of skills and economic and social contributions. Recall that a black circle in the table means that a function is assigned to and implemented by this actor according to the law, while the x means that the function is assigned to the actor by law but is not implemented in practice.

But one could also argue that this reflects reluctance to establishing new criteria for judging the impact of policies and performance of the central government, represented in this case by the MOE. The same also holds for performance reporting. In both cases, the national level escapes the presence of an institution assigned with reporting on its performance and studying the impact of its policies and programs. This is

also the case with performance evaluation. Since the local levels are not independent from the national MOE, and lack real decision-making authority, given the absence of real decentralization, the local authorities share the same status as the national level when it comes to evaluation, reporting, and impact analysis.

The x's and –'s are also dominant under the NCEEE, which should be the national authority responsible for examination and educational evaluation. As I argued previously, the absent role of this Center in issuing reports, evaluations, and training is not only a reflection of limited institutional capacity, but also of a lack of a vision regarding the role of evaluation and impact analysis, and possibly unwillingness to reveal more information about the functioning of the educational system – nothing more than the historically common information about enrollment, the gender gap, number of schools built, etc. is revealed.

After this eyeball review, which does not require much knowledge about the education system in Egypt, I move on in the following points to a discussion of the main functions of educational quality assurance in Egypt and how they are assigned and performed by the six institutional structures highlighted in the table<sup>60</sup>.

### Performance Standards

As clear from Table 29, there is no shortage of institutions responsible for issuing standards in the Egyptian educational system. Historically, setting standards for all educational participants was the responsibility of the MOE. As mentioned earlier, the last

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60. This discussion is based on Vegas, et al. (2010).

time the ministry issued standards was in 2003. Since the creation of NAQAAE in 2007, standards have been set separately by the ministry and the agency. In addition, PAT also sets performance standards for teachers. The MOE, NAQAAE, and PAT are all central government institutions that function more or less independently from each other.

Evidence shows that there is minimal coordination among them in setting standards, which leads not only to multiplicity of standards but also to inconsistencies among them at times. This situation has direct effects on evaluation – supervisors and evaluators are confused regarding which standards to apply when evaluating students, teachers and schools. One could argue that, by extension, the confusion among standards trickles down to affect impact analysis and accountability given the obstacles this situation creates in the road to evaluation and comparative analysis of the progress achieved by various educational participants and the effectiveness of various policies and programs.

#### Performance Evaluation

There is a plurality of institutions responsible for evaluation: the MOE, NAQAAE, NCEEE, and PAT. The MOE evaluates teachers and students through the governorate-based Educational Directorates. As the body responsible for accrediting all Egyptian educational institutions, NAQAAE is technically responsible for evaluating students, teachers, schools, and the education system as a whole. However, NAQAAE has only performed evaluations for accreditation in a relatively small number of schools, and there has been no research or comparative studies to guide policy and provide recommendations. PAT evaluates teachers in accordance with standards it issues and grants licenses accordingly.



This plurality contrasts with the evaluation activities actually taking place. As argued above, this could be attributed to a lack of institutional capacity, the multiplicity and confusion of available standards, the lack of separation between policy setting and oversight, and the preoccupation of policy makers with quantitative expansion and financial strains.

### Performance Reporting

All institutions involved in quality assurance are responsible for issuing performance reports. However, surfing the websites of the MOE, NAQAAE, NCEEE, and PAT reveals very little regular performance reports about the education system as a whole and about specific education system participants. The absence of systematic feedback weakens the ability of the system to benefit from comparative studies and improve both policy and implementation. Schools and teachers in particular are likely to respond to negative feedback by improving their performance in order to avoid being labeled as below standards or “bad” in the future. This could act as an incentive for improvement if regular performance reports were published.

### Impact Evaluation of Policies and Programs

Once again, we find that the MOE, NAQAAE, NCEEE, and PAT are all responsible for impact evaluation. However, it is enough to surf the websites of these institutions or ask consultants who work in the field to know that almost no impact analysis is published. From my own experience, I found it interesting that after the passage of more than half the time period since launching the National Strategic Plan for

Pre-University Education in Egypt, no impact analysis or evaluation was published. This in itself is a failure of the plan since one of its pillars is continuous accountability and evaluation. Again, we can blame this on institutional capacity and the lack of a culture that links policy to outcomes after years of focusing on inputs and quantitative expansion. It is also arguable that there is a lack of political will to follow up and a weak culture regarding the relations between governmental organizations on the one hand, and independent research organizations, think tanks, and universities on the other. This argument should draw our attention to the political context of policy making and implementation, and the ingrained secrecy and lack of accountability in the public sphere at large.

#### Requirements to Operate

As with the other functions of educational quality assurance mentioned above, setting the requirements to operate is shared between the MOE, NAQAAE, and PAT. In addition, the General Authority for Educational Buildings sets requirements for school buildings. As these requirements are more or less established over the years, such as the description of school staff responsibilities and the educational level required to work in the teaching profession, there is no gap between the assignment of function and the actual implementation.

#### Ensuring Adequate Funding and its Equitable Distribution

The education budget is negotiated between the MOE and the Educational Directorates from one side, and the Ministry of Finance from another. Funds are

channeled from the MOE to the Educational Directorates, and then from the later to individual schools. Recent decentralization efforts have experimented with allocating block grants to schools and the development of new criteria for deciding the size of these block grants.

#### Autonomy, Support, and Intervention

Given the high level of centralization, there is little room of autonomy for students, teachers, or schools. Technical-pedagogical support for teachers and schools is available through the MOE and the Educational Directorates. The former funds a national professional development program for teachers and school principles, and the later provides support to teachers through its supervision procedures. In addition, the newly created PAT will maintain a register of professional development providers and license teachers according to quality standards that it develops. As mentioned above in the discussion of the quality assurance systems in Egypt, the Quality Assurance Units (QAUs) and Technical Support Units (TSUs) are constituted at the *Idara* level to assist schools applying for accreditation with NAQAAE.

#### Accountability and Consequences

The creation of NAQAAE and PAT are intended to enhance accountability mechanisms facing schools and teachers. For example, NAQAAE decided not to accredit 30 out of 270 schools that applied for accreditation in 2008-2009; that is, 10% of the applicants were denied accreditation. In 2009-2010, NAQAAE accredited only 489 schools out of 1440 schools that applied for accreditation that year; that is, 34% of the

applicants. It rejected the accreditation of 612 schools, 42.5%, and deferred the accreditation of 339, 23.5%. This makes the total number of schools that applied for accreditation since NAQAAE started to function in 2008 and until 2010 is equal to 1710 schools, only 676 of them, or 39.5%, were accredited<sup>61</sup>. One wonders whether this is a sign of improved standards and accountability, or a sign of the low quality of existing schools. This remains an empirical question that I do not attempt to answer here. In the future, however, and as NAQAAE develops its work aiming at improving the quality of education and supporting schools quality measures, the percentage of schools denied accreditation should be expected to decline. Similarly, the cadre system for teachers created by PAT and regular evaluations according to the standards set by this institution are expected to have an effect on teacher quality.

There is still a need, however, to think about stronger accountability mechanisms, such as reducing funding to low-performing schools that persistently fail to meet standards or withdrawing a poor-performing teacher's license. For this to happen, the starting point should be revisiting existing evaluation, reporting, and impact analysis activities to ensure the availability of data required to apply performance-based consequences. The evaluations and reports in particular, especially when they refer to individual teachers and/or schools, act as an accountability mechanism by performing the role of reputational sanctions or rewards even when the role of the market is absent, as is the case in Egypt.

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61. Egypt Education Portal. Available through: <http://egypt.thanwya.com/city/5126>. Access Date: December 21, 2010.

Summary of Educational Quality Assurance  
in Egypt: Revisiting the Hypotheses

The purpose of the above discussion of Egypt's educational quality assurance system was not to highlight the gap between legal responsibilities and the tasks actually performed by the institutions in charge. However, this gap is eye-catching to the extent that deserves consideration. Institutions appear to be piled on top of one another instead of rethinking the redistribution of function in actual practice; that new institutions do not have the capacity or resources to accomplish some of their tasks; and that evaluation, impact analysis, and accountability and consequences are the functions mostly ignored in this system. As argued earlier, this could be attributed to institutional capacity, financial resources, and/or the absence of the evaluation culture which trickles down to affect impact analysis and consequences – ending up with a system that lacks real accountability measures based on standards-based evaluation. This is the case despite the fact that the issue of establishing standards-based education system has acquired central attention in education reform in Egypt, and was reflected clearly in the National Strategic Plan for Pre-University Education (Egypt's Ministry of Education 2007).

I do not argue against the institutional and financial limitations, but the idea of choosing this theoretical framework was to neutralize, to a certain extent, the effect of resources. This framework is mainly about administrative capacity, which is the first step toward achieving quality. The two criteria for achieving this first step is to assign all quality assurance functions to participating actors and insure that there is a separation between the institutions performing policy setting and those performing oversight functions – basic administrative principles. Investigating the possible reasons behind this

deviation from administrative efficiency should bring in the role of time/history, size, and politics. Now, let us revisit the hypotheses cited in the previous chapter and examine how the relations expected apply to the case of Egypt. I will further examine these hypotheses at the end of this chapter after bringing in the case of Qatar.

### The Size Hypothesis

As highlighted earlier, Egypt's education system is one of the largest in the world. A number of participants are benefiting from the maintenance of the status quo. One could easily argue that teachers are among the primary beneficiaries through private tutoring, with annual family spending on private tutoring comparable to the amount of money the government spends on education – except that the former goes directly to teachers. Other beneficiaries are national bureaucrats who aim at maintaining their authority and the central government which maintains its control over the main participants in the society, parents and students, and the business community involved in the field of education. Parents and students, who are supposed to be interested in a better education system and reducing the financial burdens caused by private tutoring, do not want to jeopardize the established ways of taking exams, acquiring diplomas, and joining the formal sector. The huge size of the sector means that more actors can be affected by change, and hence the political risk could be higher. This could explain the near absence of impact evaluation in the Egyptian system. The lack of capacity and resources for evaluation and impact analysis which are supposed to provide an unbiased portrayal of the outcomes of MOE policies in terms of accountability, students' performance, and

market demands should be considered in terms of the political and economic interests of central governmental institutions, teachers, and businesses involved in education.

Empirically verifying these interests and their effects requires in-depth qualitative analysis, which I do not pursue here, but it is still fair to assume that the size of the sector and the plurality of the actors involved stand as impediments to covering non-traditional functions, such as impact analysis, that might affect the standing and weight of certain actors.

To summarize, the education quality assurance system in Egypt confirms the hypothesis that, as size increases, the ability to define and assign all functions of quality assurance goes down.

#### The Time–History Hypothesis

The modern schooling system in Egypt is one of the oldest among Arab countries, dating back to the early 19<sup>th</sup> century. The history of quantitative expansion and centralization are clearly taking their toll. This is reflected in the pervasive role of the MOE in performing both policy setting, implementation, and oversight functions, and its continued role in performing these functions despite the creation of new institutions responsible for setting standards, evaluation, and analysis – mainly NAQAAE, NCEEE, and PAT. The absence of attention to these functions reflects the effect of history in setting values and embedding them within formal and informal institutions about how to get things done. And the duplication of functions reflects the persistence of long-established institutions – mainly the MOE and its affiliated Educational Directorates.

To summarize, the education quality assurance system in Egypt confirms the hypothesis that, as the history of the system in existence increases, the duplication of functions become more likely and the ability to separate policy setting and oversight functions goes down.

#### The Political Stability Hypothesis

This hypothesis assumes that a politically stable regime is less compelled to maintain centralized control and dominance over both policy setting and oversight functions. Whether we can attribute the lack of separation of functions and duplication in the quality assurance system in Egypt to political stability is subject to interpretation. But it is arguable that education is one system within the broader socio-economic and political systems. If the political regime feels threatened by contending forces and power transition is not clear, as was clearly the case in Egypt during the final years of Mubarak's rule, one should expect a stronger need by the central government to maintain control and continue to perform certain functions even after being assigned to new independent institutions. To summarize, the education quality assurance system in Egypt confirms the hypothesis that when political stability of the regime in power is shaky, there is a lower likelihood of efficiently separating policy setting and oversight functions, and the duplication of functions is more likely to materialize.

An article in *Forbes*, published a few months before the Egyptian uprising in January 2011, argued that political uncertainty and succession questions in Egypt may diminish needed capital inflows and could worsen prospects for foreign investment, especially given scares about the Mubarak's health (El Said 2010). Interestingly, an



anonymous interviewee who works in the field of education reform told me that investments in education are not different from foreign direct investments – both are stalled due to political uncertainty and the lack of clarity regarding the situation post-Mubarak. According to this interviewee, a bilateral aid agency postponed a planned project for education reform given the uncertainty in the political environment. It is still not clear how things could change after the ouster of Mubarak. This aspect should become clearer in the discussion of the case of Qatar.

### Qatar

Table 30 shows which actors performs the main policy setting and oversight functions for each of three main actors in the education process: students, teachers, and schools in the case of Qatar.

A number of observations could be drawn from a quick review of this table. I mention them in the following points:

- The catchword for Qatar's ENE could be "administrative efficiency." Despite the presence, and persistence at times, of undeniable problems, we can notice two main aspects that distinguish the Qatar's reformed governance system from its Egyptian counterpart. First, there is a clearly smaller number of institutions involved in quality assurance. In Qatar's system, the main institutional participants mentioned in Table 30 are the Education Institute, the Evaluation Institute, and schools. This limited number of organizations reflects a degree of streamlining operations and an ability to remove older structures as newer ones are being created. This contradicts the situation in

Table 30. Education Quality Assurance Functions for the Main Participants in the Education System: The Case of Qatar

	Students	Teachers	Schools
Performance standards	Education Institute: Curricular standards in Arabic, English, math, and science – developed by the Curriculum Standards Office at the Education Institute – are content standards (what students should know) and performance standards (what students should be able to do by the end of each grade).	Education Institute – issues Qatar’s National Professional Standards for School Teachers and Leaders. The Qatar Office for Registration, Licensing, and Accreditation (QORLA), part of the Evaluation Institute, licenses teachers and school leaders based on these standards.	Since the Emiri Decree 14/2009, the Education Institute is responsible for establishing standards and reviewing the applications of all Independent, International, and private schools in Qatar.
Performance evaluation	There are three main approaches for evaluating students, and the performance of the system at large -Evaluation Institute: the Student Assessment Office designs and implements the Qatar Comprehensive Educational Assessment (QCEA). There are five Performance Levels that students can achieve: “meets standards,” “approaches standards,” and three levels of “below standards.” The purpose of the QCEA, and the Qatar School Accountability System (QSAS) at large, is to inform parental choice, school accountability, and educational policy making. - Classroom based tests developed by teachers. -International tests such as PISA and TIMMS administered by the Evaluation Institute.	The Qatar Office for Registration, Licensing, and Accreditation (QORLA), within the Evaluation Institute is responsible for all teachers and school leaders in Independent and private schools in Qatar. The portfolios of school leaders and administrators receive initial approval by an independent committee appointed by the Evaluation Institute in preparation for licensing. Teachers’ portfolios are approved by a school committee appointed by the school operator, which recommends the licensing of teachers and administrators.	Education Institute – the ISO performs periodic compliance reviews to guarantee compliance with contract obligations. Evaluation Institute – the School Evaluation Office oversees the evaluation of all schools in Qatar.

Table 30 continued.

	Students	Teachers	Schools
Performance reporting	Evaluation Institute - the School Evaluation Office publishes School Report Cards (SRCs) that are posted on the SEC website. It also issues Triennial School Reviews (TSRs) focusing on special areas of school functioning and performance such as teaching and learning.	Evaluation Institute – the School Evaluation Office publishes School Report Cards (SRCs) that are posted on the SEC website. It also issues Terminal School Reviews (TSRs) focusing on special areas of school functioning and performance such as teaching and learning.	Evaluation Institute - the School Evaluation Office publishes School Report Cards (SRCs) that are posted on the SEC website. It also issues Terminal School Reviews (TSRs) focusing on special areas of school functioning and performance such as teaching and learning and relations between parents, community and the school.
Impact evaluation of policies and programs	<p>Evaluation Institute – the Data and Management Office administers the QCEA. It also conducted the first Qatar Comprehensive School Survey (QCSS) – a questionnaire to students in grades 3 through 12, parents, teachers, and school social workers. The Office also maintains the Qatar National Education Database System (QNEDS).</p> <p>-The Research Office designs and monitors the Qatar National Education Data System (QNEDS), and conducts studies on schools and the reform in general.</p> <p>-The Evaluation Institute issues guidelines for school evaluation of students.</p>	<p>Evaluation Institute - the Data and Management Office administers the QCEA. It also conducted the first Qatar Comprehensive School Survey (QCSS) – a questionnaire to students in grades 3 through 12, parents, teachers, and school social workers. The Office also maintains the Qatar National Education Database System (QNEDS).</p> <p>- The Research Office designs and monitors the Qatar National Education Data System (QNEDS), and conducts studies on schools and the reform in general.</p>	<p>Evaluation Institute - the Data and Management Office administers the QCEA. It also conducted the first Qatar Comprehensive School Survey (QCSS) – a questionnaire to students in grades 3 through 12, parents, teachers, and school social workers. The Office also maintains the Qatar National Education Database System (QNEDS).</p> <p>- The Research Office designs and monitors the Qatar National Education Data System (QNEDS), and conducts studies on schools and the reform in general.</p>

Table 30 continued.

	Students	Teachers	Schools
Requirements to operate	Education Institute: stipulated an admissions policy to Independent Schools based on nationality and the parent's employment. It also established age requirements and guidelines for transfer among Independent Schools, MOE schools, and among Independent, MOE, and Private schools.	The Education Institute issued the National Professional Standards for School Teachers and Leaders. Licensing based on these standards is required to engage in the teaching profession for both teachers and school administrators, in Independent and private schools.	Education Institute – through the ISO. The Private Schools Office (PSO) is responsible for licensing private schools and managing the Voucher Program. The Shared Services Department of the SEC monitors the compliance of schools with the requirements of school buildings.
Ensuring adequate and equitable resources	The Budget of the Supreme Education Council is part of the state's general budget. The Education Institute, through the Finance Office, distributes the funds to Independent Schools. The Office also assists potential school operators develop their financial plan as part of their application to run a school. Funding takes place on a per-student basis. The budgets of Independent Schools include two separate items: one for salaries and wages and the other for the operating budget. To cover operating costs, Independent Schools receive a set level of funding for each enrolled student who is eligible for a free education in Qatar.		
Autonomy, support, and intervention	The Qatar Student Assessment System (QSAS) designed by the Evaluation Institute aims at providing feedback to teachers in order to help them tailor instruction to support the needs of students. The Education Institute has issued policies, guidance documents, and support material to schools in order to provide additional educational support students with learning and/or other disabilities.	Education Institute – through the Professional Development Office, the Institute develops and implements training programs for teachers to increase their ability to understand the curricular content in the four core courses. The Office tailors its programs to the needs of each school and its staff.	Education Institute – the ISO maintains an Information Center that reviews complaints made by all stakeholders, and has the authority to intervene in case problems occur during the contract. If these problems are not addressed properly, the SEC has the right to revoke the license.

Table 30 continued.

	Students	Teachers	Schools
Accountability and consequences	Evaluation Institute: the Institute issues guidelines about the performance standards required for students to transition between education levels. The Evaluation Institute also issues the guidelines for passing the Qatar Secondary School Certificate.	The Student Assessment Office does not recommend that the QCEA be used for rewards or sanctions of teachers. The evaluation of teachers' performance and the outcomes of this evaluation remain within the domain of individual schools, under the purview of school operators and school administrators.	Education Institute: renewal of independent schools' takes place after a comprehensive review by the ISO. The contract is reviewed at the end of five years of operation. The results of the QCEA play an important role in evaluating the performance of schools and the decision about whether to renew the contract. The first year of operation for the Independent School is a year of evaluation of the performance of the school operator, and the license could be revoked after this first year.

*Note:* Reproduced from Brewer, et al. Gonzalez (2007), Gonzalez, Karoly, Constant, Salem, and Goldman (2008) Gonzalez, et al. (2009), (Guarino, Gonzalez, Tanner, Constant, and Galama (2009), Zellman, et al. (2009), and the SEC website. Dark-gray shading signifies policy-setting function. Light-gray shading signifies oversight function.

- Egypt where newer structures are compiled over older ones. As the SEC was taking over in Qatar, the MOE was planned to retreat, until it was completely integrated within the structures of the SEC in 2009. The second aspect is the division of function between the Education and Evaluation Institutes, where the former is responsible for most of the policy setting functions, and the later is responsible for most oversight functions. There is some level of duplication that can be noticed, for example, in the fact that oversight is performed by the ISO within the Education Institute, and the School Evaluation Office within the Evaluation Institute. The level and efficiency of communication between the two offices is an important determinant of whether this duplication would complement the function performed by each office, or would amount to a duplication of function. While addressing this point is outside the scope of this study, the following observation by the RAND group in Qatar remains true: that the opportunity to design an education system almost from scratch in Qatar gave them the chance to apply scientific methods and apply effective and efficient techniques in their design (Brewer, et al. 2007).
- The budget of the SEC is part of the state's budget. Dedication to spending on education has been noted by the RAND group (Guarino, et al. 2009). Unlike the case in Egypt, funding takes place on a per-student basis.
- There is a clear assignment of functions to the Education and Evaluation Institutes. However, it is important to note that the idea of administrative efficiency is not, and possibly cannot, be achieved without flows, even though

RAND and other organizations working with the Qatar government were building a system almost from scratch. Some of the problems in Qatar's education system include problems in communication, the relative lack of policy predictability, and the inability to apply the principles of choice and public accountability. For example, the design of the reform effort places responsibility for developing the curriculum standards with the Curriculum Standards Office and that for developing the assessments with the Student Assessment Office. Both offices are under the evaluation Institute. However, communication and subsequent coordination between these offices was infrequent. Another problem concerns the rather rapid character by which laws change. There were a number of changes concerning financial policies, including capping some funds and expenses (Guarino, et al. 2009).

Regarding the ability to materialize the principles of choice and public accountability in practice, it is not clear that the education system in Qatar was able to provide these opportunities. Whether this is a function of a lack of democracy and concern for public accountability in a monarchy that is still reliant on tribal loyalties is an empirical question that I do not attempt to answer here. But it is clear that choice is compromised in Qatar's charter school system. One important reason is the limited number of schools. Especially at the beginning of the program, there were long waiting lists of students wishing to join Independent Schools. In 2010, the Education Institute issued guidelines for admission to Independent Schools, and geographic location was the most important among these guidelines (Supreme Education Council 2010a).

Interestingly, this is not very different from the Egyptian system, or any other centralized educational system which allocates students to schools based on their geographic location. While the freedom of parents to choose other schools is guaranteed, it is difficult to perceive that this freedom is real given the excess of demand compared to the supply of Independent Schools. The cornerstone of a charter school system is choice, and translating this principle into the real lives of parents and students requires such actions as busing, freedom to register students in schools of choice, etc. However, this kind of choice is so far limited in the Qatari system, especially that we still do not have information or studies about the ability of parents to make use of the available data and information that the SEC so professionally provides.

Another possible limitation rises from the policy of Qatarisation. The Qatari government initially opened the door for all potential school operators to apply for licenses. But according to law 11/2006, one of the requirements for applicants is to be Qatari citizens (Supreme Education Council 2010b). There is definitely no problem with making sure that available national skills are used and that the sustainability and stability of the program are maintained through guaranteeing a better opportunity for nationals to get directly involved in the management of the educational system. But the question remains about how this could affect the diversity of available choices as well as the quality of education provided, especially that the profession of teaching is still not appealing for many Qataris. Another related problem is the rapidity with which some regulations were changed, including regulations related to Qatarization. As a result, the system lacked stability, which affected the ability of the operators of Independent



Schools to make long-term investments in quality or to spend their full per-pupil allotments.

Table 31 shows quality assurance functions performed by the Education Institute, the Evaluation Institute, and schools. The SEC is the main policy setting body. But it is not included as a separate participant since most of its functions are performed through the Education and Evaluation Institutes. The MOE is also not included as it has been integrated within the structures of the SEC, and while it still exists on paper, the SEC is currently the only body responsible for education policy in Qatar.

Comparing Table 31 to Table 29 on Egypt, we find a number of points sticking out. Before going into an indepth discussion, a quick view of both tables could tell us something about the extent of changes that Qatar has achieved. This is important given the fact, highlighted earlier, that the Qatari education system was based on the Egyptian system, as well as other Arab systems, when it started developing in the 1950s. The first eye-catching observation is that the Qatari table appears less “crowded.” Candidate institutional actors involved in education quality assurance in Qatar are the Education Institute, the Evaluation Institute, and schools. Unlike the case in Egypt, where the MOE still performs functions for which other institutions were created, mainly NAQAE, NCEEE, and PAT, in Qatar’s case, the role of the MOE started retreating as the SEC began taking over, until the Qatari MOE was integrated within the structures of the SEC in 2009, and the former seized to function as an independent body.

In the case of Egypt, we started by looking at the black circles, x’s, and –’s, doing the same visual exercise here, we find a clearer case of streamlining in the case of Qatar.

Table 31. Legal Responsibility for Education Quality Assurance Functions: Distribution across Institutions in Qatar

		Education Institute	Evaluation Institute	Schools
Performance Standards	Students	x		
	Teachers	x		
	Schools	x		
	National System	x		
Performance Evaluation	Students		x	x
	Teachers		x	x
	Schools	x	x	
	National System	x	x	
Performance Reporting	Students		x	x
	Teachers		x	
	Schools		x	
	National System		x	
Impact Evaluation of Policies and Programs	Students		x	
	Teachers		x	
	Schools		x	
	National System		x	
Requirements to Operate	Students	x		
	Teachers	x	x	
	Schools	x		
	National System	x		
Ensuring Adequate and Equitable Resources	Students	x		
	Teachers	x		
	Schools	x		
	National System	x		

Table 31 continued.

		Education Institute	Evaluation Institute	Schools
Autonomy, Intervention and Support	Students	x	x	x
	Teachers		x	x
	Schools	x	x	
	National System		x	
Accountability and Consequences	Students		x	x
	Teachers			x
	Schools	x	x	
	National System		x	

*Note:* Reproduced from Brewer, et al. Gonzalez (2007), Gonzalez, Karoly, Constant, Salem, and Goldman (2008) Gonzalez, et al. (2009), (Guarino, Gonzalez, Tanner, Constant, and Galama (2009), Zellman, et al. (2009), and the SEC website. X signifies that the institution is responsible for this function according to the law, and is carrying out this function in practice. Dark-gray shading signifies policy-setting function. Light-gray shading signifies oversight function.

The x's are present under the Education Institute regarding the functions highlighted as policy setting, while they are concentrated under the Evaluation Institute with functions highlighted as oversight functions. There are functions were both institutes complement the roles performed by one another. This is the case with performance evaluation for schools and the national system at large. This is also true in the case of teachers' requirements to operate. The successful performance of certain functions by different offices will ultimately depend on the level of communication and coordination. For example, the Qatar Student Assessment System (QSAS) is an important avenue for evaluating student performance and acquiring information on the system's performance at large. This examination is designed by the Evaluation Institute. The responsibility for designing policies addressing the needs of students with learning and/or other problems exists within the Education Institute. The need for further coordination and communication is far from perfect in Qatar (Guarino, et al. 2009). The functions performed by schools are mainly in the evaluation and oversight category.

After this eye-ball review, discussing the main function of education quality assurance in Qatar appears pretty straight forward. This is the case given the concentration of policy making functions under the Education Institute and oversight functions under the Evaluation Institute. Schools play a more central role, compared to the Egyptian case, given their more freedom in hiring and firing decisions, and responsibility for achieving quality standards.

## Performance Standards

Setting performance standards for all education participants is the responsibility of the Education Institute.

## Performance Evaluation

The body responsible for performance evaluation in Qatar is the Evaluation Institute. It takes primary responsibility in evaluating students and accrediting teachers. Schools also play important roles in achieving both functions. Internal evaluation for students is an integral part of the regulations issued by the Evaluation Institute to evaluate students' performance. The Evaluation Institute also establishes guidelines for accrediting teachers and school operators. But it does not directly interfere regarding the performance of teachers. It is left to the judgment of the school administration as to how to respond to teachers in case their performance falls below expected standards. This approach is based on the fact that the school administration is ultimately responsible for achieving educational standards, and failure to achieve these standards could lead to revoking the license. Therefore, the school will have an incentive to monitor closely the performance of teachers and other participants within its sphere of influence.

However, one could imagine that this situation could encourage such behaviors as teaching to the test and/or scaling up students' scores. These points are not within my focus in this part. But they certainly deserve separate focus in future studies. Since the system is in its early years, one could imagine that the ability to include the SEC, schools, and parents into the evaluation system, and guarantee a fair and effective evaluation system, will depend on the role played by all participants, including BOTs. It will also

depend on the ability to provide real choice through increasing the number and variety of available Independent Schools.

#### Performance Reporting

This is the responsibility of the Evaluation Institute through publishing School Report Cards (SRCs) and Triennial School Reviews (TSRs). These reports are available on the SEC's website. The possibility that these reports could be used for the betterment of the educational system will depend on the degree of choice and the ability of parents, as well as decision makers, to use these reports for making informed decisions.

#### Impact Evaluation of Policies and Programs

Unlike the case of Egypt, where the function of impact evaluation is almost absent in practice, and dispersed among a number of institutional participants, this function is concentrated within the Evaluation Institute. In Egypt, as discussed above, this function was performed by the MOE, NAQAAE, NCEEE, and the educational directorates. In Qatar, the Data and Management Office and the Research Office, both within the Evaluation Institute, perform impact analysis. The SEC has also contracted frequently with foreign organizations and think tanks to conduct studies on the country's education system.

#### Requirements to Operate

Guidelines for students, teachers, school operators, and school buildings are issued by the Education Institute.

### Ensuring Adequate and Equitable Resources

As highlighted earlier, SEC reports directly to the Emir, and its budget is part of the state budget. The Office of Finance within the Education Institute distributes the allocated finances to Independent Schools based on two budget items that each school presents: one for salaries and wages and the other for the operating budget. Operating costs are based on the number of enrolled students who are eligible for a free education. The RAND Corporation's study on financing the ENE program in Qatar pointed out that the system was characterized by frequent changes in policy which made some school operators hesitant about using all the financial resources available to them. Addressing this point is beyond the scope of this study. But one could still argue that policy stability after the initial phases of the program is expected to enhance the effectiveness of the program's financial management (Guarino, et al. 2009).

### Autonomy, Support, and Intervention

Independent Schools enjoy freedom in their hiring and firing decisions, choosing their textbooks and teaching methods, and managing their finances. They are subject to reviews by the ISO in the Education Institute. Financial accountability is guaranteed through periodic reports and audits by the Education Institute as well as by independent audits. The QSAS provides data on school performance and the performance of the system as a whole. While the Professional Development Office provides training programs for teachers tailored to the individual needs of Independent School, the final decisions regarding the retention of teachers is within the control of Independent Schools.

Teacher licensing and grade levels are regulated by the National Professional Standards, which are issued and regulated by the Education Institute.

#### Accountability and Consequences

The Evaluation Institute issues guidelines about the performance standards required for students to transition between education levels and guidelines for passing the Qatar Secondary School Certificate. The Evaluation Institute does not recommend that the QCEA be used for rewards or sanctions of teachers. The evaluation of teachers' performance and the outcomes of this evaluation remain within the domain of individual schools, under the purview of school operators and school administrators. Finally, schools are subject to periodic review by the Education Institute. The first year of operation of an Independent School is a year of evaluation, and the license can be revoked after this year if the school does not abide by the standards and recommendations of the Education Institute. School report cards and triennial reports issued by the School Evaluation Office of the Evaluation Institute act as other methods of accountability. The contract is reviewed at the end of five years, and failure to meet standards leads to revoking the contract.

#### Summary of Educational Quality Assurance in Qatar: Revisiting the Hypotheses

The above discussion of the education quality assurance system in Qatar reflects a degree of success and a number of continued challenges. On the one hand, Qatar was able to streamline its educational governance system, assign the main functions of quality assurance to specific participants, and separate, to a considerable extent, between the



functions of policy making and oversight. The Qatari system has also been successful, to a certain extent, in avoiding duplication. On the other hand, there are reported problems in terms of coordination between a number of offices within both the Education and Evaluation Institutes and the sometimes unpredictable nature of financial and administrative regulations. More importantly, there is the legitimate argument that the ENE's principles, especially variety and choice, could not be implemented on the ground. This could be attributed to the limited number of schools compared to demand, regulations for assigning students to schools in their neighborhoods, the possible lack of ability on the part of parents to use available data to choose among available schools, in addition to the policy of Qatarization which could possibly reduce the variety of school choices and affect the quality of available teachers given the fact that the teaching profession does not appeal to most Qataris.

But as I argued earlier, this comparison of education quality assurance systems in Egypt and Qatar focuses on highlighting the effects of important exogenous variables on the ability of both countries to achieve a comprehensive assignment of quality assurance functions to participants in the education sector and separate the functions of policy making and oversight. This is considered the first step toward achieving quality. It does not mean that problems do not exist. Problems and potential for improvement will always be present. But achieving this first institutional step is a necessary starting point. Now, let us revisit the hypotheses cited in the previous chapter and examine how the relations expected apply to the case of Qatar.

### The Size Hypothesis

The case of Qatar shows that the quality assurance functions are all defined and assigned to participants in the system. This contradicts the case of Egypt, where the functions of impact analysis, in particular, are lacking. The small size of Qatar's education sector, in contrast to the Egyptian sector, in addition to the availability of financial resources, determined leadership, and the availability of technical expertise through foreign organizations that the Qatari program relied on, such as the RAND Corporation, meant that resistance to change is not expected to be as strong as in the Egyptian case. The dedication of the Emir and the relatively low level of societal resistance could be correlated to the ability of Qatar's ENE to define important functions of educational quality assurance and assign them to institutional actors. It is also possible to argue that the relatively small size of the Qatari bureaucracy helps us understand the ability to define certain quality assurance functions that are more or less ignored in the Egyptian system. As discussed earlier, the accumulation of institutions responsible for setting standards in Egypt, and the lack of coordination among them, leads to confusion. This confusion trickles down to affect such functions as impact analysis and the ability to conduct comprehensive and/or comparative analyses discussing how the system is functioning. Qatar's smaller size, and the smaller size of its education system, facilitates the performance of such functions related impact and outcome evaluation.

To summarize, the education quality assurance system in Qatar confirms the hypothesis that a smaller size could be correlated with a better ability to define and assign all functions of education quality assurance.

### The Time–History Hypothesis

The main two hypotheses highlighted earlier regarding the effect of time/history on the design of the education quality assurance system reflect the persistence of institutional arrangements that existed at an earlier time period. As seen in the Egyptian case, the fact that the educational system started as early as the mid-19<sup>th</sup> century means that earlier institutions tend to persist. This is reflected in the continued central role of the MOE in the system, leading to duplication of function and lack of separation between the functions of policy making and oversight.

On the other hand, Qatar's modern system of education could be dated back to the mid-20<sup>th</sup> century – one century later than the beginning of modern education institutions in Egypt. The Qatari system was formed on the model of the Egyptian and other Arab systems in the region, both in terms of governance structures and curricula. Therefore, the ability to design a new comprehensive system based on separation of function could shed light on the effect of time on organizational design. One interesting point to note in this regard is that since the ENE started in 2002, the main responsibility for education policy shifted to the SEC, with the MOE left only with the responsibility for public and private schools. The introduction of new Independent Schools and the conversion of more public schools into Independent School status continued until, in 2009, the MOE was completely integrated into the structures of the SEC. That is, as new structures were introduced, older structures started to wane in importance. This could also be attributed to the availability of financial resources which helps with organizational restructuring and personnel training. But it could also be attributed to the relative lack of intensity when it

comes to bureaucratic resistance, which could be attributed, at least in part, to the shorter history of bureaucratic structures in the educational sector in Qatar. By extension, the ability to redistribute functions and/or terminate older organizations as newer ones start to take over could interpret the difference in duplication of function in the Egyptian and Qatari systems. While the duplication of function was clear in Egypt's Legal Responsibilities table – Table 29 – it was not evident in Qatar's table – Table 31.

To summarize, the education quality assurance system in Qatar confirms the hypothesis that a shorter history of the political system could be associated with less duplication of function and a better ability to separate policy making and oversight functions.

#### The Political Stability Hypothesis

This hypothesis stresses the perception of the education system as an arena for establishing state control and for contending forces to attempt to enhance their role in society. By extension, a state threatened by contending forces or where regime alliances require a certain direction for the education sector, as the case of the Saudi regime's alliance with the Wahhabi scholars, the attempt to maintain control within central institutions will be emphasized, leading to both duplication of function and limited separation between the functions of policy making and oversight. This was arguably the case of Egypt, where the continuation of the dominant role of the MOE despite the intention to focus its functions on macro policy making and the establishment of new institutions for setting standards, evaluation, and accreditation, led to confusion and duplication. In Qatar, the dominant role of the Emir, and the historical concentration of

the main threats to regime stability within the ruling family, means that the administrative efficiency of the education governance system is both facing less obstacles and more appealing given its role in expanding the political basis of support for the Emir among the younger generations. While the Wahhabi doctrine is the official religious orientation of the regime in Qatar, Islamic groups do not represent a real threat for the political regime and, as highlighted earlier, their activism is usually focused in the media and other civil, philanthropist, and religious activities.

### Conclusion

The above discussion of education quality assurance systems in Egypt and Qatar does not intend to argue that one system has achieved better quality assurance than the other. One reason is that differences in financial resources between the two countries mean that one should expect a better ability of the Qatari system to achieve better results. Another reason is that it might be too early to evaluate the outcomes of reform in either case. For example, it is not easy to establish a relationship between education reform and student performance. We know that Qatari students have achieved better on the latest round of PISA, but we do not have enough longitudinal data to empirically examine whether this could be attributed to the launch of the ENE in 2002. The same could be true of the case of Egypt, where socioeconomic conditions proved more influential in determining student performance compared to governance reforms.

The conceptual framework used in the comparison does not address whether the goals of reform, based in both countries on the principles of standards, accountability, and choice, could be achieved in reality. Although I did address these issues briefly in the

above discussion, the purpose of the framework I used was not to evaluate the implementation of reforms. The same is also true regarding the relation between education and economic performance. The recent reforms programs in Egypt and Qatar were driven by a perception of the importance of education reform in economic development, and the need of the former in order to materialize the gains from privatization and market-based economic reforms. Again, it might be too early to examine whether the recent education reforms could achieve the goal of establishing economic growth based on a solid foundation of human capital.

Despite these previous arguments, it is still possible to argue that establishing an effective education quality assurance system is the first step toward improving student performance, achieving accountability and choice, and realizing a new economic growth pattern based on a solid foundation of human capital. Through highlighting the ability of both countries to achieve a quality assurance system based on defining and assigning the main quality assurance functions, and separating policy making from oversight functions, I aim to direct attention to the factors facilitating the implementation of administrative efficiency, and hence possible success in long term reform. I established links between administrative efficiency and the three pillars that this study is based on: size, history, and political stability. Through examining these links, it is possible to draw conclusions about the reasons behind the shift in the center of innovation and creativity among Arab countries toward smaller countries in the region.

The discussion of education quality assurance systems in Egypt and Qatar showed that size, history, and political stability matter for achieving reform. This discussion

could also possibly give a better explanation to the empirical literature which was reviewed in Chapter 2. As we saw in this chapter, Qatar, with a smaller education sector was better able to define and assign the functions of education quality assurance in this framework. Functions such as impact evaluation and accountability and consequences are arguably higher up the ladder in a standards-based educational system. The ability of Qatar to develop a system that addresses these functions could be attributed, at least in part, to the small size of the system which reduces the number of actors affected by oversight functions.

Similar arguments could also be cited with regard to the effects of history/time and political stability. A system with longer history means that old values are ingrained in long established institutions, meaning that change is arguably more difficult. A shorter history is expected to be associated with the opposite outcome. This could explain why we found that the Qatari MOE began to retreat in importance as the SEC began to take over. The Qatari system was better able to avoid duplication and separate functions, unlike the Egyptian system where the standard was for new institutions to get layered over older ones. Finally, political stability and the absence of competing claims mean that the regime is not in dire need for maintaining political control over the education system. This was also translated in avoiding duplication and better ability to separate functions in the Qatari case. In Egypt, on the other hand, the continued dominant role of the MOE reflects a continued need and determination to maintain control.

It is true that establishing these causal links could be debatable. However, the literature review in Chapter 2 revealed some agreement about the effects of size, history,

and political stability on social and economic outcomes. Therefore, the causal links just discussed aim only to provide some more “colors” for these established links in the literature. For example, a trend in the empirical literature discussed in Chapter 2 pointed out that smaller countries are better able to achieve economic growth based on the absence of social polarization and their need to diversify their economies. The lesson from the education sector we just learned is that smaller sectors and, by extension, smaller countries have fewer groups invested in the status quo. The literature which discussed the effect of history argued that a long history of the regime in power means that there is less incentive to invest in institutional building. The above discussion also highlighted the effect of institutional longevity and resistance to change. The literature on political stability argued that stable autocracies have a longer time horizon and stronger incentives in long term growth. A degree of political instability is still needed as an incentive to substitute for the role elections play in democracies. The lesson we learned from our review of the educational system in Qatar is that this stable country, where threats to regime stability come mainly from within the ruling family, has a higher incentive to reform its education system, and less concern with separating functions and giving more autonomy to schools.

In short, the discussions and analyses in this and the previous chapter focus on the subtitle of this work: “Lessons from the Education Sector.” They aim at coloring the empirical literature reviewed in Chapter 2, or to give meat to the Skeleton created through the quantitative analysis in this chapter. We started this work by an observation that smaller countries in the Arab world are moving quickly in areas of social and



economic reform, and are leading the traditional centers of influence in the Arab world, such as Egypt and Syria. The argument is that size, history, and political stability are important explanations. After reviewing the data showing a lack of a strong relationship between education and economic performance in the Arab world, examining this relationship empirically, and reviewing the literature to approach this relationship from a perspective that stresses the interests of the main participants in the education system, we now end up with affirming these relationships and shedding light on possible explanations for the faster movement of smaller countries. These explanations focus on the presence of fewer groups in smaller and newer countries with ingrained interests in maintaining the present system, weaker opposition to change based on a shorter history, and less concern with threats emanating from outside the political regime. These factors are not present in all smaller countries, but the degree to which they are present in smaller countries could determine the speed with which these countries are able to respond to the need to change and reform.

## CHAPTER 7

### CONCLUSION: A TYPOLOGY OF ARAB COUNTRIES

This dissertation started by an observation that can be noted through an eyeball review of the socioeconomic situation among Arab countries. This observation is the apparent shift in the center of innovation and creativity in the Arab world from countries such as Egypt and Syria, to smaller countries on the outskirts of the Arab world such as Qatar and the UAE. This dissertation is in the field of political economy. It aims at explaining this shift through examining the factors that shape the political regime's interest to invest in long term growth, and the factors that hinder and facilitate this ability toward investment and reform.

Evidence of this shift can be noted in a number of fields: the Dubai model which developed as an international center for investment and innovation, the widespread spectatorship of the Qatari Al-Jazeera Channel, and the development of the Bahraini capital markets are examples of this shift. While I do not claim that these countries have expanded opportunities and achieved stable economic structures that will allow them to compete with advanced Western countries and guarantee long term growth, these observations deserve attention as they open an opportunity to contribute to theory building as well as creating an understanding of the potential and challenges facing socio-economic development in Arab countries at the moment.

It is possible to argue that the driving force behind this shift is a combination of oil wealth, political stability, distance from the Israel-Palestinian conflict, etc. I did not object to these explanations when I first started this work, but I focused my effort to approach the reform and growth variations in Arab countries in a way that builds on and contributes to theory. Studying the Arab context in some more detail could help contribute to a wide range of literature that addressed how contextual factors, mainly size, history, and political stability affect the potential for growth and reform. These three groups of variables are the building blocks for this study, and they are the bases for hypotheses development and testing in Chapters 2-5.

The choice of these variables is based on a review of the literature in Chapter 2. The reason for choosing contextual factors is twofold. First, in the context of the Arab world, where democracy is hardly established in any of its countries, it is possible to argue that leadership plays a determinative role. The context for decision making, which could possibly be called “the leadership’s sphere of action,” is directly affected by the social, political, and physical environment which determines the time horizon of the regime in power and its ability of free movement. The second reason for this choice comes from the Arab context itself. While there are certainly a number of differences in variables such as religion and culture, it is arguable that the similarities among Arab countries and their shared language and common historical experiences reduce the effect of these variables. Focusing on the regime therefore makes logical sense.

### From the Broad Question to an Area of Study

After highlighting a broad research question based on an observation of a number of changes among and within Arab countries, and after highlighting the three building blocks of this study based on a review of the literature and an understanding of the situation in Arab countries, I was left with how to approach the umbrella question concerning the shift of the center of innovation and creativity in Arab countries. One could study the financial sector in Bahrain, the multi-billion dollar higher education institutes in countries such as Qatar, Saudi Arabia, and UAE, or the artificial islands established off the coasts of the UAE.

In other words, there are a number of fields that one could study in order to shed light on how fast smaller Arab countries are reforming, and how effective these reforms are. But my argument as an observer of Arab political and economic systems, is that a legitimate concern and critique of many of these reforms is that they are rather artificial, and have little effect on addressing the main dilemma of Arab economies, which has been described as a lack of a stable production base and high vulnerability to external shocks, especially fluctuations in international oil prices.

Based on this perception, the focus of my analysis centered on the field of education in an attempt to understand the relation between education and economic performance in Arab countries from a historical and institutional perspective, and how reform is affected by the main groups of variables that direct research in this work: history, exogenous variables, and political stability.

Through analyzing the relationship between education and economic performance in Arab countries, I attempted to shed light on the factors contributing to growth in Arab

countries, the reasons behind the low contribution of education to economic growth, and how we can account for the variation in education reform in Arab countries. Through this focus, my aim is to shed light on the umbrella question that guided this research effort since its beginning: what are the reasons behind the shift of the center of innovation and leadership among Arab countries from its traditional centers in countries like Egypt and Syria to smaller countries on the outskirts of the Arab world such as Qatar and the UAE?

### Main Findings by Chapter

In the introductory chapter, I reviewed some main observations, data, research findings, and survey results regarding the relationship between education and economic performance in Arab countries. The purpose of this chapter is to provide an eyeball review of the outcomes of education and how they affect economic performance on the one hand, and the general characteristics of Arab economies on the other. This chapter showed that the main track record of Arab economies showed a high level of fluctuation and vulnerability to external shocks, especially changes in oil prices. This is a reflection of the absence of a stable productive base and reliance on external rents.

On the other hand, education expansion took an upward trend in almost all Arab countries since independence. Most Arab countries have achieved universal enrollment, and the gender gap has been narrowed significantly, to the extent that some countries have more girls than boys enrolled in various stages of education, especially in tertiary education. Given this disparity between a zigzag line representing economic growth, which reflects economic fluctuation, and a straight upward slopping line representing

enrollment expansion, attention should be directed to the issue of education quality and the incentives of the main participants in the field of education.

Hence, I moved on in Chapter 1 to review a number of qualitative educational measures as possible explanations of the absent positive effect of education expansion on economic growth. Arab students have generally low scores on international standardized exams such as TIMMS, PISA, and PIRLS. This could be attributed to the incentives of Arab students as well as the quality of education they receive. Surveys of business representatives show dissatisfaction with the quality of graduates. Therefore, the ability to expand investments and foster economic growth is constrained by the supply of skilled labor. In Arab Gulf countries, foreign labor fills in this gap. However, reliance of foreign labor in these countries creates its own political and social problems.

Chapters 2 and 3 examined the relationship between education and economic performance and told a story which led to this relationship. In addition to examining the effect of education on economic performance, Chapter 2 sets the building blocks of this study – history, exogenous variables, and political stability – through a broad review of the literature, and examined how these three groups of variables affect economic growth as a foundation for later analyses in the following chapters.

Chapter 2 is based on the premise that leadership matters for understanding the growth potential in Arab countries. Set in the time period between 2001 and 2006, this period of increased oil prices allows us to understand the factors contributing to economic growth in the region. The focus on leadership is based on a number of reasons. First, it is based on the perception that the effect of such variables as religion and culture are, to some extent, reduced given the many similarities among Arab countries. Second,

in a context where democracy indices show low levels of democracy, leadership plays an important role in understanding the variation in economic performance among Arab countries, however limited this variation is, Third, a broad trend in research focused on the effect of history, oil, population diversity, and political stability on economic and social outcomes, and on the design and implementation of public policies. This chapter is, from one perspective, a replication of this previous work in the Arab region.

Through a cross-section time-series regression analysis, I examined the effect of these variables on economic performance. I also included measures of education enrollment since they are usually included in exogenous growth models given the role of education in absorbing technology, which could be perceived as exogenous in developing countries. Regarding education, measures of education enrollment had no statistically significant effect on economic performance. When secondary enrollment had a statistically significant effect, it was negative. These results come in agreement with the eyeball review in Chapter 1 as well as results of previous research. The absent relationship between education and economic performance could be attributed to education quality, and the negative and significant effect is attributable to the inverse relationship between the level of education and employment among Arab populations, where previous empirical investigation found that the likelihood of unemployment increases with one's educational level. Furthermore, spending and enrollment in low quality education could be perceived as wasted investments, which also explain the negative relationship between secondary enrollment and GDP growth.

The results of the regression analysis with regard to exogenous variables create a rough sketch for examination in later chapters. Regarding the measures of exogenous

variables, measures of size, for both population and area size, had negative effects on GDP growth. Oil as percentage of merchandise trade had a positive effect, which reflects reliance on external rents. The main measure of history in the regression analysis was British colonialism, which had a robust and significant negative effect. This reflects the special context of Arab countries where Western colonialism in general reversed some positive trends in the social and economic fields of these countries. When the measure of durability, the number of years since the most recent regime change, had a significant effect, this effect was negative. This is a reflection of the effect of a younger age on reducing the hindrances to change and increasing the incentives for reform.

Finally, the dummy variable for monarchies had a positive effect. While this result was not robust in all regression models, it stands as a support for the argument that monarchies, with their stable and accepted mechanisms for power transition, are at a better position to achieve economic growth and invest in long term growth. The recent uprisings which ousted now-former Presidents Ben Ali and Mubarak in Tunisia and Egypt respectively, and which pose serious challenges to Bashar El-Asad, Ali Abdallah Saleh, and Moammar Ghaddafi in Syria, Yemen, and Libya, are reflections of the challenges that result from the absence of clear mechanisms for power transitions in Arab republics. While the uprising in Bahrain did cause a challenge for the ruling family, the majority Shiite population in this country and its proximity to Iran makes it a special case among Arab monarchies.

With this sketch, or skeleton, created in Chapter 2, reflecting the effects of history, exogenous variables, and political stability, I moved on in Chapter 3 to telling the story of how education systems in Arab countries developed in a way that stressed



centralization and focused on memorization – two characteristics which weakened the ability of education system outcomes to contribute to economic growth. This chapter is a reading of literature. While I do not present original research in this Chapter, it is possible to claim that the approach to reading the trends in available literature through a lens focusing on history, exogenous variables, and political stability represents a contribution to the literature and to our understanding of the development of the relationship between education and economic performance, and the maintenance of this relationship.

The reading presented in Chapter 3 was based on a lens that perceived the development of centralized and memorization-based education systems in Arab countries as based on factors that fall under the three groups of variables on which this dissertation is based: History, exogenous variables, and political stability. The main purpose was to create a framework for understanding the incentive systems guiding the behavior of the main participants in the education system: the state, students/parents, and schools/teachers.

Historically, education systems in Arab countries in modern times were largely founded on religious bases, with central role played by the institution of the *Kuttab*. With the advent of Western colonialism and the rise of nationalist movements, education acquired central attention, especially given the intentionally low level of attention that colonial powers gave to this field in order to avoid the development of anti-colonialist sentiments among the subjects of their colonies. With education expansion, coupled by limited resources and contention over sources of identity, the result was piling secular over religious curricula, lower quality, and the development of centralized institutions and examination systems to filter access to universities. A mosaic characteristic of Arab

education systems developed during this period in the first half of the 20<sup>th</sup> century, reflected in the coexistence of religious, public, private, and foreign schools with little national policy guiding them.

As these systems persisted following the independence period, starting around the mid-20<sup>th</sup> century, they gained resilience. The goal of expanding access to education was central to the regimes that assumed power following independence. But increasing access and limited resources only increased the importance of centralized institutions and examination systems to guarantee equality, even if it came at the cost of quality. On the other hand, the expansion of the role of the government and the spread of systems guaranteeing employment for high school and university graduates reduced the incentives of schools, teachers, parents, and students to focus on skills, focusing instead on acquiring a diploma even if it contributes little to employment opportunities – a phenomenon referred to as the “diploma disease.”

In this discussion of the literature, I focused mainly on the effect of oil as an exogenous factor shaping the interests of the main actors involved. In the later discussion of individual cases, Egypt and Qatar, I paid particular attention to the effect of size. Oil has been an important factor from two perspectives. First, it increased the importance of a diploma in labor-exporting countries to gain access to jobs in the oil-rich, labor-importing countries. Second, oil rents have decreased the incentive for students to excel in their studies since lucrative government employment in the public sector for nationals in GCC countries did not require the same skills needed in the private sector.

While my reading of the literature stressed history and oil as factors that led to shaping a centralized and memorization-based education system, the maintenance of this

system could be largely attributed the third group of variables directing this study:

political stability. The reading of the literature on how political stability considerations in Arab countries affected education systems could be summarized in the following points:

1. The drive for control represented a main factor in determining the approach of Arab states toward the education system – control over the bureaucracy as well as social and political control. Control over the bureaucracy was translated into centralization and avoidance of real transfer of power. Established bureaucracies, on the other hand, aimed to maintain their centralized control, in addition to their distrust of local capacity. Social and political control depend, to a large extent, on the nature of regime alliances and sources of threat. For example, Saudi Arabia, with the alliance of the political regime with the Wahabi movement, maintains control to guarantee the dominance of the Wahabi doctrine. In Egypt, reform of the education sector governance, probably until the end of Mubarak's rule, was compromised by the threat of the expansion of the influence of Islamist groups, both violent groups during the 1990s and non-violent groups, mainly the Muslim Brothers. Policies such as decentralization and school autonomy threaten to allow groups such as the Muslim Brotherhood more social ground through school boards, for example.
2. Bureaucratic and business interests also play a role in maintaining the system. The long standing educational bureaucracies have interests in the maintenance of the status quo. In Egypt, for example, the large system including some 15 million students in the K-12 education, thousands of schools, and hundreds of

thousands of workers in the field, create interests on the part of the business community engaged in school construction, printing text books, etc. These businesses arguably generate huge profits, and are tied to the political establishment. In Chapter 3, I coined the term “multiple hat bureaucracy” to refer to those individuals who go back and forth between businesses, education bureaucracies, and the ruling party. The same individual can wear all three hats at different or the same time, or they can be worn by different individuals. An individual working in a business related to school constructions, for example, could also be a member of the ruling party and a financier of its activities. This is expected to strengthen his or her role in both institutions. This same individual could also be involved with educational bureaucracies or could have been an employee of it. This multiple hat phenomenon strengthens the networks with interests in maintaining the status quo.

3. The social contract based on free education and, until recently, guaranteed employment for high school and university graduates, is still playing a role in directing attitudes toward education and the government’s perception of the importance of quantitative measures of education even if this comes at the cost of quality. This social contract, in rentier and non-rentier countries alike, reduced the role of the private sector in the process, which remained out of the formula generating education outcomes even after the shift of many Arab countries toward economic systems that stress the role of the private sector as the main engine for producing income and employment since the early 1990s.

4. Another element related to both history and political stability is the popular mentality related to regional conflicts, especially the Arab Israeli conflict. This mentality, which sometimes drifts toward conspiracy theory thinking, puts control on the extent of curricular reform, especially with regard to the three main subjects directly related to national identity: Arabic, Religion, and History.

Chapters 4 and 5 took the results of the first three chapters and applied them to the cases of Egypt and Qatar. My purpose was to add life to the skeleton, or colors to the sketch, that I have built through data review, empirical analysis, and literature review. In these two chapters, I developed and examined hypotheses based on the influence of the three groups of variables, or building blocks, which were the focus of this study since its beginning: history, exogenous variables, and political stability. I focused on education quality assurance systems in both countries, defined through a conceptual framework developed by the World Bank for this purpose. The argument was that a shorter history, smaller size, and political stability will contribute to achieving the two main criteria of having an administratively sound system for education quality assurance: defining and assigning all functions of quality assurance on specific participants in the system, and separating policy making from oversight function.

Following the same logic in Chapter 2, which was also a guiding logic for this study at large, I looked at education reform and quality assurance as a government initiative that aims at affecting the incentives facing the actors involved. The main thesis in these chapters is that there are two forces pulling Arab governments in two different directions. On the one hand, the forces pulling for maintaining the status quo were

described above. I described the forces pulling for change under four categories: (1) the youth bulge, (2) labor market dysfunctions resulting from a large public sectors and the inability of the private sector to fill in the gap in providing employment opportunities due, in part, to the quality of graduates, (3) public discontent with education systems and the limited opportunities they provide for citizens, and (4) international attention to education systems in Arab countries, especially after 9/11.

Given these two forces, the question I attempted to answer in the final two chapters focuses on the factors that allow Arab countries to respond to incentives and avoid hindrances to change. Keeping up with the same logic I based this study on, and building on the knowledge developed through the first three chapters, I based my analysis on the three building blocks of this study. Through this analysis, I attempted to explain how these groups of variables act in the real world to determine the pace of reform in Arab countries.

Chapter 4 focused on explaining the motivators of change, the status of education in Egypt and Qatar in terms of quantitative and qualitative measures, and the political context of education governance and governance reform. Furthermore, this Chapter also discussed the conceptual framework I used for comparing education quality assurance systems in Egypt and Qatar. As mentioned above, this framework is based on the perception that there are a number of functions that need to be defined and assigned to participants in the education system in order to guarantee reaching the starting point toward successful education quality assurance. The first condition required for a successful education quality assurance system is assigning these functions, which range from setting standards to impact analysis, to participants in the system. A second

condition that needs to be met is the separation of the bodies responsible for policy making and those responsible for oversight. This framework therefore focuses on administrative efficiency. The reason for using it is that it reduces the influence of financial resources as compared to the political will to reform.

I applied this conceptual framework in Chapter 5. As mentioned above, I derived the hypotheses from the three building blocks of this study. The size hypothesis states that as the size of the sector increases, chances of defining all functions of education quality assurance decreases. A large size, in terms of numbers of students, bureaucrats, etc., means that change could threaten larger segments of the population. The functions of impact evaluation and reporting in particular could jeopardize established norms and interests since attention has been concentrated for years on quantitative measures and inputs instead of outputs and outcomes. Large size could also mean more opposition to change.

The time/history hypothesis is based on the assumption that long-standing institutions are more difficult to change. Therefore, the assumption is that the longer the history of the education system, the more likely we will see duplication of function. A second hypothesis regarding the effect of time is that central institutions that gained power over time will maintain their authority and prerogatives. We can therefore expect that central government institutions that have been in existence for longer time to be responsible for both policy making and oversight function, thus failing the separation assumed to be required for successful education quality assurance.

The political stability hypothesis is based on the premise that a politically stable regime is expected not to feel compelled to maintain centralized control over the

education system. This is expected to reflect in the ability to separate policy making and oversight functions, and to avoid duplication of functions.

The differences between Egypt and Qatar in terms of size, history, and political stability allowed an opportunity to examine how these variables are reflected in the education quality assurance systems in both countries. Egypt's education system is far larger than the Qatari, and is almost a century older. The monarchic system in Qatar and the dominant position of the ruling family guarantees a high level of stability. The volatility of the Egyptian regime under Mubarak was clearly reflected on February 11, 2011, when he had to step down from power after almost 30 years as President, following only 18 days of public protest.

Reflecting on the size hypothesis, we find that the Egyptian system fails to define and assign all functions of quality assurance, especially those of impact evaluation and reporting. This could reflect the lack of administrative capacity and/or resources. But it could also reflect the inability to initiate change given the large size of the sector and the large number of participants who could be affected by a shift toward, for example, analyzing the impact of education policies and whether they are efficient in achieving public objectives. On the other hand, the case of Qatar reflects a better ability to define and assign the main functions of quality assurance to the main participants in the system.

Reflecting on the time/history hypothesis we find that the Egyptian case clearly reflects the persistence of long-established institutions, and the piling of new institutions over old ones. Looking at the table portraying education quality assurance in Egypt, we find six participants, while in Qatar, only three could be found. Duplication of function was therefore noted in Egypt, while this was not the case in the Qatari system. The



Ministry of education in Egypt performs both policy setting and oversight functions, which reflects failure to separate policy setting and oversight functions, while in Qatar, the Ministry of Education exists on paper only as of 2009, while all its functions and structures were integrated within the newly created Supreme Education Council. The higher political stability in the Qatari regime allowed it to reduce centralization, and dividing the functions of education governance on the Education Institute and the Evaluation Institute. In Egypt, the Ministry of Education continued to dominate the system and participate in almost all functions from setting standards to evaluating its own policies, although a declared goal of education reform in Egypt was to confine the role of the Ministry to broad policy.

### Reflecting on the Broad Question

Now we can go back to reflect on the umbrella question of this dissertation: why do we see a shift in the center of innovation and creativity among Arab countries from its traditional centers in countries like Egypt and Syria to smaller countries on the outskirts of the Arab world? The answer could be discussed in terms of history, size, and political stability. In the age of globalization, the fast movers are less encumbered with old institutions that resist change. These institutions could be formal or informal, and in both cases a shorter history makes change easier and more attainable. Small size facilitates movement, a logic that applies to our physical fitness as it applies to policy making and implementation. A smaller and more homogeneous population will include less polarization and is easier to satisfy compared to a larger population with diverse interests – an issue examined in a large body of empirical research, as shown in Chapter 2. Finally,

political stability reduces regime interest in maintaining control, hence facilitating movement toward innovation and change.

One final point needs mention here, the small countries that are becoming the center of innovation and change in the Arab world also happen to be on the outskirts of the region. The distance from the Palestinian/Israeli conflict arguably reduces social resistance to change given the lower public fears rising from a conspiracy mentality. This, however, did not prevent the Qatari education reform program from being portrayed as a Zionist plot by the media in neighboring countries, as was discussed in Chapter 4.

#### Issues That Were Not Addressed, or What We Still Can't Tell!

We can conclude from this work that small size, shorter histories, and political stability provide a better ability to engage in change-oriented reform aiming at responding to the rapidly globalizing environment in which we are living today. Back in the 1950s and 1960s, when Qatar borrowed from Egypt's centralized education system, large size, centralized bureaucracies, and longer histories created status and provided resources for leadership in the countries which enjoyed these characteristics. In the age of globalization, fast response to changing conditions is a main determinant of the ability to lead. At a time when the world is becoming increasingly interconnected, it takes energetic leadership to make use of the available opportunities.

The bigger, heavily centralized, and police-based Arab countries find more difficulty in achieving faster movement. This could explain why Qatar's al-Jazeera satellite TV station is attracting increasing attention not only in the Arab world, but worldwide as well, and why the National Bank of Kuwait is by far the best private bank

in the Arab world, and Bahrain's service sector – such as law firms, and insurance and consulting companies – is the most globally competitive in the region. Dubai's Internet City has attracted Oracle, Microsoft, I.B.M., and many other high tech corporations.

However, it is important here to pose to pinpoint what we still do not know. This is an important step to highlight the limitations of this research and clarify where we need to know more and how this dissertation can provide a contribution to future research. Generally speaking, we know that smaller countries on the outskirts of the Arab world are more innovative in the sense of reforming their economies, financial and educational sectors, among other things. These reforms are attracting international attention as well as research interest. Building on previous research attempting to explain variations in social outcomes in different countries of the world, the research in this dissertation provided evidence that size, history, and political stability are important pillars for understanding these variations and changes in the Arab context.

But we still do not know whether these reforms will contribute to long term growth, or whether they can provide a solution for an ingrained illness in Arab economies and societies at large – dependency on external rents. The reason for choosing educational systems as a field for putting the effects of size, history, and political stability under the spotlight is the perception that reforming education is the way to stable economic growth based on a strong foundation of human capital. Other kinds of reforms would be shaky at best without this foundation. The high sensitivity of Arab economies to external shocks since the 1970s is a testimony to the absence of stable productive bases.

Education reform still does not tell us enough about whether this stable economic growth is achievable, or even whether it is the main goal of education reform. Reviewing education reform in Qatar showed that it was able to create a system which reflects international standards in both curricular content and administrative system. But we still do not know whether this system will improve student outcomes and create a positive contribution to the economy. So far, we can only see better performance for Qatari student in PISA, and positive evaluations from international organizations and think tanks. But we still need more time and data points in order to be able to empirically examine the relationship between Qatar's education reform on one side, and the performance of Qatari students and the Qatari economy on the other.

The very motivation for directing Qatari resources to education reform is debatable. As I discussed in this work, directing resources toward education reform in Qatar could be another outlet for the flow of oil rents which increased with the buildup to the invasion of Iraq in 2003. It could also be an attempt by the Emir to increase his basis of support among the younger generations, especially because opposition to the palace coup which brought the current Emir to power was still prevalent among the older generations within the ruling family. It is also arguable that with a national population somewhere between 200,000 and 600,000, and a higher number of non-nationals, the Qatari economy will continue to rely on expatriate labor anyways. The incentives of students to excel in education and join the private sector are not high given the appeal of the lucrative and prestigious government jobs available to nationals. All these factors mean that the long-term outcome of education reform in Qatar in terms of economic growth is not clear, at least for now.

But whatever the validity of these arguments about the motivations of education reform in Qatar, the fact of the matter remains that there are incentives and hindrances to reform, and that smaller countries are better able to build on the incentives and opportunities, and counter the hindrances to reform. This dissertation is in the field of political economy, a field which focuses on the investment and reinvestment of society's resources. These decisions are best understood through understanding the incentives facing the actors involved. The foundation for approaching education reform in Arab countries in this work, as explained in Chapter 4, is based on the perception that there are two groups of factors pushing Arab countries in two different directions. The first group, which pushed for reform, includes the youth bulge, labor market dysfunctions, public discontent with present educational systems, and international attention to education systems in Arab countries post 9/11. Forces pulling for stability center around bureaucratic and business opposition, fears from change, and political stability considerations. Evidence from Chapter 5 shows that the small size, shorter history, and political stability of Qatar allowed it to create a more feasible administrative system to govern its educational system compared to Egypt.

Whether education reform in Qatar, or other Arab countries for that matter, will provide more stable economic growth track is an issue for future research to consider. The success of such endeavors will depend on the passage of enough time and the availability of data whether in individual countries or in a cross section of Arab countries over some reasonable period of time.

Understanding Incentives, Hindrances,  
and Context for Policy Change  
among Arab Countries

Based on the previous discussion, one could take the evidence about the positive effects of a smaller size, shorter history, and higher political stability to understand how these variables can counter the disincentives, or hindrances, facing reform in Arab countries. These motivators and disincentives work in education reform and possibly in other fields such as economic and political reform. Figure 20, shows the disincentives for reforms in Arab countries on the top row, and how the socio-economic and political context of Qatar allowed it to bypass these disincentives and engage in an overhaul of its education system. The disincentives are presented as bureaucratic, business, and political interests in maintaining the status quo.

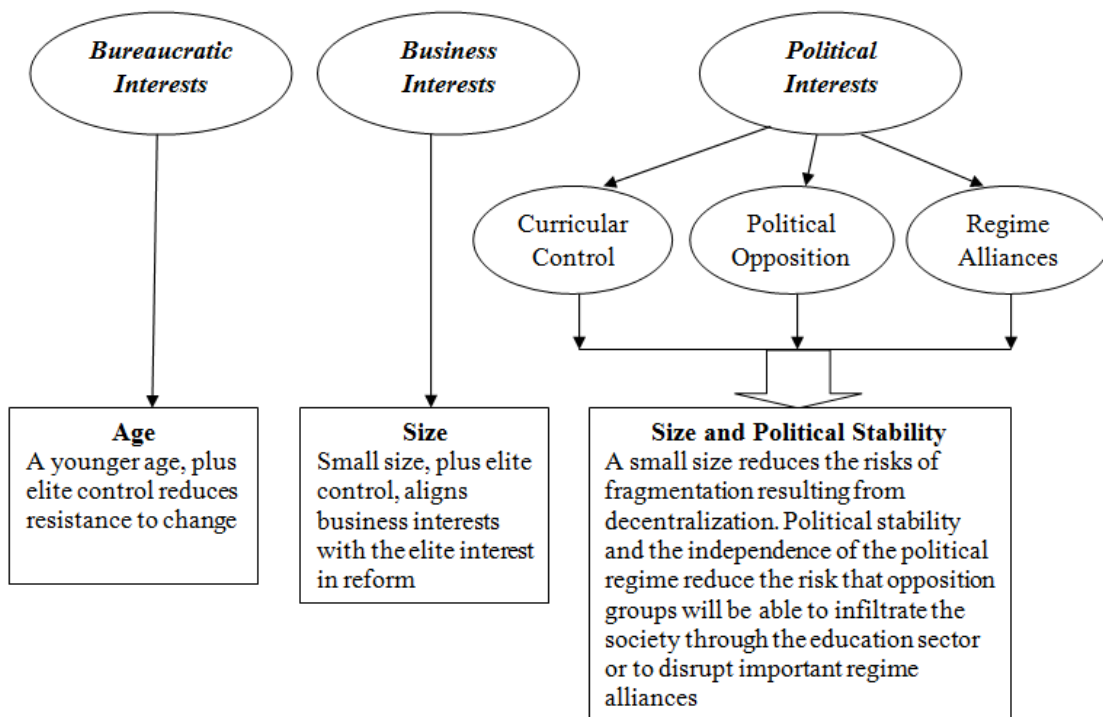


Figure 20. Imperatives for control and Qatar's context facilitating decentralization.

Read from top to bottom, Figure 20 shows that the disincentives for reform in Arab countries were counterbalanced within Qatar's context in a way that allowed the political elite to engage in reform which includes decentralization and building an effective administrative system for managing the education sector. Bureaucracies are generally resisting of change, especially in the case of long established bureaucracies. But Qatar is a small country with a short history. The political elite has direct control over the bureaucracy, which is itself based on expatriate labor, despite the policies of Qatarization in different sectors of the society. This is a way to understand the easier drive to change in Qatar compared to other Arab countries.

As we saw in the case of Egypt, the large education sector created business interests with direct interest in maintaining the status quo. These business are those involved in school building, printing textbooks, etc. Again, Qatar's small size means that there are less gains to be achieved from economies of scale in these sectors. In addition, the dominance of the ruling family over the business sector ameliorates most opposition from this source.

Finally Arab regimes have direct interests in maintaining control over their education sectors in order to maintain their control over society. As discussed in Chapter 3, politics have a direct effect on education policy and content. A small religious book for fourth graders is a reflection of political interactions, societal dynamics, and historical heritage. I mentioned a number of examples of this situation in Chapter 4. The alliance of the Saudi regime with the Wahabbism, for example, restricts attempts toward decentralization for fear that schools choosing their own curricula would choose topics rejected by the Wahhabi establishment, such as teaching the theory of evolution. In Syria,

the fact that President Bashar Al-Assad belong to the minority Alawite group resulted in religious curricula that focuses solely on mainstream Sunni Islam in order to avoid opening the door for discussing religious fragmentation in the country. In Egypt, concern with the spread of the influence of the Muslim Brothers arguably halted efforts toward establishing functional School Boards of Trustees (BoTs) and giving them wide latitude for decision making.

Figure 20 shows that concerns with political stability result in and are driven by curricular control, containing the societal influence of political opposition, and maintaining regime alliances. This situation represents a motivator for maintaining the status quo, despite incentives and interests in reform on the part of the political regime. Again, the context of Qatar provides counter forces that facilitated change and reform.

Size and political stability can explain the ability to achieve administrative efficiency and distributing the functions of quality assurance in a way that guarantees separation between policy making and oversight functions, with a role for schools in managing curricula and human resources functions. Small size reduces the risk of fragmentation or the infiltration of opposition groups into the education system. Local authorities in Qatar do not participate in the education governance system, but schools have independent authority in managing their finances, human resources, and deciding on curricula, in addition to their role in student evaluation.

Politically, Qatar is a stable monarchy. Although Wahabbism is the dominant form of Islam, just as in Saudi Arabia, the Wahabbi establishment does not constitute a dominant force as in the latter. Muslim Brothers in Bahrain exist mainly in the fields of media and philanthropic organizations, and do not constitute a challenge to the political



regime as in Egypt under Mubarak. This reduces the incentive to maintain control through control over the curricula and the governance system. The existence of threats to the survival of the political regime stemming from within the ruling family acted as a motivator for reform and for aligning policy with the orientation of the younger generations interested in reform and presenting their country as a leader in the region.

The distance from the Arab Israeli conflict deserves some discussion here. As discussed in Chapter 3, conspiracy theories and the perception of outside threats controlled the drive for education reform given public doubts. But the distance of Qatar from this conflict, and the high living standards of its small population, facilitated the initiative of the regime to rely on international think tanks and organizations working in the field of education. This gives a further explanation to the eyeball observation that drove this study: that smaller countries on the outskirts of the Arab region are now leading in terms of innovation and reform. They are not only small, but also on the outskirts!

### A Typology of Arab Countries

In this section I attempt to present a typology of Arab countries based on the three building blocks of this work: exogenous variables (size), history, and political stability. The reason for presenting this typology as an outcome of this study is my belief that these variables, and the results of this study, can be applied to other fields within the Arab world in order to understand the potential and obstacles for reform. In other words, studies aiming to understand trade policies, administrative reform, NGO laws, etc. from a political economy perspective could benefit from the logic applied in this dissertation.

However, I understand that the results of this study cannot be generalized to other fields or other countries in the world without replication in other fields and contexts.

A typology of Arab countries based on the logic of this work will face the inevitable dilemma of the elusiveness of the concept of political stability. As the uprisings sweeping the Arab world at the moment demonstrate, political stability is not an easy concept to measure. While signs of social and political tensions were certainly clear, no one expected uprisings that would oust or pose serious challenges to almost half dozen Arab autocrats. However, it is still possible to argue that Arab monarchies are better able to survive this wave. Figure 21 presents a possible typology of selective Arab countries, focusing on their potential for reform, based on the two dimensions of size and history. The issue of political stability is included as an estimate which places Arab countries in different quadrants as shown below.

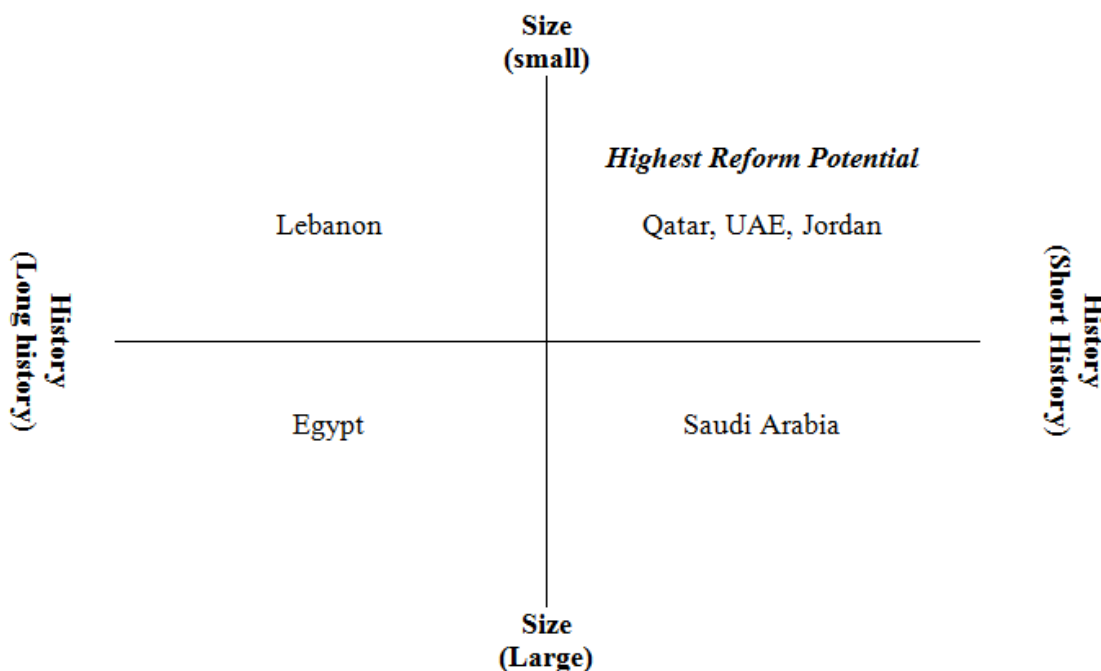


Figure 21. A typology of reform potential in selected Arab countries.

The first quadrant, which includes Qatar, UAE, and Jordan, is designated as the quadrant including the countries with the highest potential for reform. These are the smaller countries with shorter histories. They also enjoy a level of political stability which, according to a logic I employed throughout this study, stems to a good degree from the fact that they are monarchies. The nature of reform potential in other quadrants will depend on how political stability is defined, an issue which I leave for further research and case study analyses to decide upon.

Despite the elusiveness of the concept of political stability, it is possible to assume, according to the evidence provided in this work, that smaller countries will be more stable, and will have a higher incentive for reform. This will depend on the level regime alliances and the source of threats to regime survival. Politically stable countries will have a higher incentive to invest in long term growth. A degree of political instability acts as an incentive for reform as well. In the case of Qatar, this threat comes from within the ruling family.

The very categorization of countries by size and history can be arbitrary. Yet it seems like a necessary arbitrariness. If this categorization is based on in depth analyses of the situation on a country-by-country basis, future research can replicate the logic of this study and provide evidence in support or opposition to its results. It is also possible to move countries among these quadrants based on how the researcher will interpret the concept of political stability. For example, Egypt has a longer history of bureaucracy. Therefore, I placed it in the quadrant representing large countries with long histories. It is possible to argue that the ouster of Mubarak could usher in a fresh new start for the bureaucratic establishment, and that the larger size will not be translated into political

challenge for reform given the representation of formerly unrepresented groups, mainly the Muslim Brothers. Therefore, Egypt can move to the quadrant with Saudi Arabia, except with an even higher potential for reform if regime change and inclusion of different groups within the system is translated into higher stability. These questions and further categorizations of countries and their potential, and how new politics could affect reform initiatives should represent promising opportunities for future research.

### What's Next?

The recent uprisings in Egypt, Syria, and other Arab countries show that the center of innovation and creativity in the Arab world might not have completely shifted away from its classical centers in old and heavily-bureaucratized countries like Egypt. While Arabs during the 1950s and 1960s relied on *Voice of the Arabs*, the radio channel airing from Cairo, for news, there is a shift now toward the Qatari *Al-Jazeera*. But many Arab peoples now go back to focus on Egypt and Syria for revolutionary inspiration. The old bureaucracies and cultural traditions could be an obstacle for reform, but they also mask a history of resisting occupation, cultural leadership, and institutional development.

While regime change is expected to have a direct effect on policy, the direction of this effect is still not totally clear. Egypt, for example, is still left with 15 million students in the K-12 education system, in addition to thousands of schools and tens of thousands of school administrators and teachers. Regime change will not be automatically translated into systemic policy change. The availability of resources, bureaucratic capacity, administrative reform, and the political balances between the various participants in the

political and educational systems will all have a direct effect on education system reform. The trends in these fields are not clear at the moment in either Egypt or Tunisia.

The changes that Arab countries are going through open exciting and challenging areas of research for researchers in the field of political economy. After all, the youth bulge, unemployment, inequitable distribution of wealth, and public discontent with social systems and services were direct contributors to the uprisings in the region. Regimes which deliver but are not democratic, a status for which Qatar could be a candidate, are still faced by the challenge of including their populations in decision making. The younger generations are eager to participate, and through internet connectivity and openness to other societies, they aspire to know, participate, and contribute. The policy and systemic changes that will result from these pressures will be important topics for study.

Another issue is the policies of the new participants. Using Bill Clinton's campaign slogan "It's the Economy, stupid!", I argue that the political economic research in the region should develop a trend under the slogan "It's the policy, stupid!" New forces are entering the political arena. In Egypt, the Muslim Brothers, the Salafists, the Sufists are starting to form their political parties. The same is true of other secular, liberal, and Coptic groups. Furthermore, more people are starting to vote for the first time in their lives. Even in stable monarchies, like Qatar, where this wave has not materialized, this is expected to have some effect on their social and economic sectors. The policies of these new groups, their perceptions and plans for institutional development, as well as the orientations of the new voters, will be important fields of research in the years to come, and social network sites such as Facebook and Twitter will be arenas for fieldwork.

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