

**Breaking even or breaking through: reaching financial sustainability while
providing high quality standards in Higher Education
in the Middle East and North Africa**

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August 2011

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Contents

Foreword	iii
List of Contributors	iv
Introduction	v
Chapter 1: Higher Education, productivity, and labor market insertion: are MENA countries getting results?	1
1.1 Higher Education and economic and social returns.....	2
1.2 Higher Education and employment in MENA.....	2
1.3 Unemployment for young people in MENA	3
1.4 Main constraints preventing new graduates from getting jobs	4
1.5 Higher Education and productivity.....	6
1.6 How fit are Higher Education systems to meet economic and social demands in MENA?	7
1.7 What outcomes are Higher Education systems producing?	10
1.8 Conclusions.....	12
Chapter 2: Benchmarking the financial sustainability of Higher Education in MENA.....	13
2.1 Determining factors associated with educational goals and funding mechanisms in Higher Education	13
2.2 Can MENA’s funding approaches sustainably meet the needs of Higher Education?	15
Chapter 3: How to use current funding more effectively: linking Higher Education policies and priorities with allocation mechanisms and tools	28
3.1 Financing Higher Education supply and demand.....	29
3.2 How allocation mechanisms can be used to meet access, equity, quality, and relevance goals.....	36
3.3 Building a comprehensive strategy	40
3.4 Conclusions and lessons learned	42
Chapter 4: Cost-sharing in tertiary education: why, when, and how?.....	44
4.1 Policy options for Higher Education financing in countries with a limited fiscal base.....	44
4.2 Tools for cost-sharing: tuition fees.....	46
4.3 Student loans in theory and practice	48
4.4 What is the future of cost-sharing in the MENA region?.....	60
Chapter 5: The role of private provision in ensuring financial sustainability, increasing access, and improving relevance and quality of Higher Education	61
5.1 Private Higher Education: concepts and actors.....	61

5.2 Private Higher Education in MENA.....	65
5.3 The contribution of Private Higher Education in MENA.....	68
5.4 Conclusions.....	77
Chapter 6: Diversifying Higher Education revenue through philanthropy and endowments: implications for the MENA region.....	79
6.1 Building a culture of philanthropy	80
6.2 Management of university endowments.....	86
6.3 A state investment or sovereign wealth fund dedicated to university operations	93
6.4 Conclusions.....	95
Chapter 7: Summary and recommendations	97
References.....	99

Foreword

The global economic crisis and the Arab Spring have raised additional challenges to most countries in the Middle East and North Africa. In particular young people in MENA are asking for better opportunities to study and work. As some countries are facing fiscal constraints, seeking financial sustainability to meet student demand is a priority for all higher education systems.

The World Bank and the Agence Francaise de Developmen (AFD) have developed a partnership program to explore alternative financing mechanisms that would enable countries in MENA to achieve financial sustainability in the short and medium term, while at the same time increase coverage and improve the quality of their graduates while assuring equitable distribution of public funds. This program has emerged as a result of the multiagency cooperation efforts at CMI- Marseille Center for Mediterranean Integration. It is part of the CMI Cluster on Skills, Employment and Labor Mobility (SELM).

To launch this endeavour a joint seminar took place at the Marseille Center for Mediterranean Integration (CMI) on January 23-24, 2011. The meeting gathered ministers, government officials and experts from MENA and beyond. The discussions focused on four key areas: (i) How to use resources more effectively; (ii) How to compensate for limited public resources; (iii) How to introduce more flexibility and diversity in funding higher education; and (iv) How to innovate and adapt in the context of technological change and the knowledge economy. Even though “there is no magic formula” with “complex challenges requiring complex solutions” the seminar provided an opportunity for participants to share their knowledge, learn from their respective experiences, and discuss practices from around the globe. This report is an outcome of the analysis following the recommendations of this event to provide further knowledge on the current financing trends observed in the MENA region, and the lessons learned from around the globe that could help countries in the Region build Sustainable Financing Strategies.

This report was prepared under the leadership of Mourad Ezzine, Education Sector Manager for the Middle East and North Africa Region, by a team led by Adriana Jaramillo Senior Education Specialist at the World Bank, and Thomas Melonio, from the Research Department at AFD. In addition to the team leaders, other main contributors to this report were Sebastian Trenner, consultant , Hafedh Zaafrane, Consultant, Bruce Johnstone Distinguished Professor at State University of New York and Diego Angel Senior Economist. In preparation of the report, the team received important contributions from Jamil Salmi, Tertiary Education Coordinator at the World Bank, Andreas Blom Senior Education Economist, Sunita Kosaraju, Benoit Millot, Maureen Woodhall, Mark Gurgand, Juan Manuel Moreno, Jean-Christophe Maurin- from AFD, Jocelyne Vauquelyn from AFD and Mats Karlsson, CMI Director.

Through the different chapters, the report addresses the key questions of how to provide additional funds, use them in ways that will yield more results and distribute them in equitable terms to better serve the young people in the Arab countries.

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Introduction

Higher education (HE) systems worldwide are faced with three main challenges: providing young people with the skills required by the job market; improving access to high quality services; and seeking out new sources of financing to cope with the growing student demand. Although most countries in the world are facing these same issues, the problem is particularly acute in the Middle East and North Africa (MENA) region, where student numbers have risen dramatically in the past eight years, with average enrollments climbing from 20 to 30 percent between 2000 and 2008.

In addition to increasing stress on education quality, this rapid expansion has increased the pressure on already scarce public finances, a situation exacerbated by the global economic crisis. While the Arab Spring has brought enormous potential for important reforms to the region, it has also brought challenges, including how to cope with additional demands within existing fiscal constraints. In relative terms, MENA countries dedicate more of their GDP to education on average than other developing countries at similar levels of per capita income. Yet taking per-student expenditures into account, the HE systems in MENA appear underfunded. For example, Egypt spends about 8 percent of its GDP on education (compared to 6 percent on average in OECD countries) and this represents only about 23 percent of GDP per student (in HE), taking into account purchasing power parity (compared to 36 percent on average in OECD countries and 55 percent in lower middle income countries). In addition, expenditures on R&D are much lower in MENA than in OECD countries; on average, MENA countries spend 0.39 percent of GDP on R&D, while the OECD average is four times that, at 1.84 percent of GDP. In addition to the amount of public spending on education, the quality of resource allocations and linking funds to results are critical areas that need to be addressed.

The Arab Spring has made it clear that young people in MENA are asking for change. They are asking for more and better opportunities to study and work. Economic growth in MENA countries over the past few years has not been enough to absorb the increasing labor force, for a variety of reasons: excessive GDP volatility; labor demand heavily dominated by the public sector; economies over-dependent on oil revenues and highly dependent on low value-added products; and weak integration into the global economy. This macro scenario, coupled with mismatches between labor supply and demand, very slow school-to-work transition, and low quality and relevance of post-basic education and training systems (resulting in high rates of secondary school drop outs, many of whom enter the labor force with low basic skills), provides a bleak outlook for sustainable economic development in the region.

As in the case of OECD countries confronted with the expansion of HE a few decades ago, in moving from elite to broad access, increased financial resources, as well as equity in the allocation of those resources, are concerns in MENA. Some countries are facing severe fiscal constraints and recovery from the financial crisis is still underway; given additional impacts from the recent political changes brought by the Arab Spring, financial sustainability is a serious challenge for all HE systems.

It will be necessary to increase funding to meet the expansion, quality, and relevance goals required from tertiary education institutions. Increasing public resources to meet the demands of HE, given the aforementioned fiscal constraints, is unlikely. Therefore, countries in the MENA region will need to diversify sources of funding and explore ways to increase private funding for HE. In general, most of the countries in MENA have low to medium fiscal space, and significant challenges related to expansion, quality, relevance, and equity. A critical issue facing systems in the region is whether they are able to provide students and graduates with the skills necessary to succeed in the labor market. HE graduates should be able to enter the

workforce with cognitive, behavioral, and social skills that allow them to bring advanced knowledge to solve complex problems, promote new ideas, and engage in diverse cultural environments. To meet these goals, more financial resources are needed, but more importantly, reallocation of existing resources is critical. In the near future, it will be quite difficult to increase or introduce new taxes; therefore most countries in the region will be confronted with finding alternative sources of public funding, improving the efficiency in the use of current funds, and exploring ways to increase private funding.

Solutions already implemented in other countries could provide better alternatives from an economic and social perspective. Looking at lessons from European countries, the U.S., Canada, Australia, and other OECD countries, as well as from countries where HE systems have moved from being 'elite' to being accessible to a wide range of students, is critical, as is coping with the increasing costs needed to provide good quality HE.

In almost all countries that have made this transition, critical questions have included: To what extent should HE be entirely publicly funded? Who should benefit from public funds? and How can funds be allocated in efficient and equitable ways? Although different countries around the world have set up different funding schemes, they do not necessarily respond to economic concerns; they are usually a product of political and cultural contexts and constraints. In the past two decades, most changes have primarily been related to the use of student fees (and other charges), and student aid programs to compensate for equity concerns related to students' lack of access due to financial constraints.

This document will provide evidence on the need to seek sustainable financing strategies for countries in MENA, whether they are high income economies, such as the oil producing countries, or low to middle income economies. Chapter 1 presents an overall description of HE graduates and the many challenges they face in their transition into the workforce. The different elements that affect this transition are discussed and special attention is given to the mismatches between labor supply and demand. Chapter 2 analyses the current levels of spending on HE, projects the future financing gaps taking into account the need to continue expanding access and improving quality and relevance, and provides a framework for funding approaches linked to meeting access, equity, and quality goals. Chapter 3 outlines ways of using current funds in more effective ways, emphasizing the need to align financing allocations with policy goals. Innovative funding allocations that link funding to performance and demand- as well as supply-side mechanisms are discussed. Chapter 4 discusses different ways to diversify sources of funding and presents alternative methods of cost-sharing. The chapter emphasizes the equity measures needed for cost-sharing mechanisms, such as student fees, and provides an overview of student loan programs used in MENA and elsewhere. Chapter 5 discusses the role of private provision of HE, and how this can be an alternative to increase access and quality, provided the necessary regulatory and quality controls are in place. Chapter 6 describes an alternative source of funding not yet common in MENA, namely the use of philanthropic resources to build endowments to support HE. Examples from the U.S. are described at length, as they constitute the most prominent and successful examples of this type of funding worldwide.

Chapter 1: Higher Education, productivity, and labor market insertion: are MENA countries getting results?

Higher education (HE) brings about economic and social benefits, as it often improves national social welfare and contributes to economic growth. Various studies have shown that HE increases the skills necessary to participate in the global economy, encourages innovation, bolsters social mobility, and creates democratic and innovative leadership and citizenry (World Bank, 2009). Universities are relevant institutions in promoting economic growth and civil society participation, not only for their capacity to create and disseminate knowledge, but also as organizations that attract talented people, inject new ideas, enrich cultural life, and encompass the whole social fabric of which they are a part. Unfortunately, in the context of the MENA region, the social and private returns to HE may not be very high, as evidenced by unemployment rates as high as 40 percent for university graduates in some countries.

There are many factors that influence economic growth, ranging from governance and overall macroeconomic and political stability, to productivity, innovation, and the quality of skills that education systems can develop. Skills development is a cumulative and dynamic process that occurs throughout an individual's life cycle. Skills are acquired through many avenues: the formal education system, informal and continuing education, and on-the-job training. Additionally, skills can be cognitive, academic, generic, or discipline-specific, and there are also social and life skills related to being part of a social network or in a professional or work environment. Skills development is a complex phenomenon and formal education systems play an important role in providing citizens opportunities for acquiring skills. Recent research conducted by Hanushek (2007) demonstrated that education, and in particular, good quality education as measured by cognitive skills, has a positive impact on economic growth. One critical element in the contribution of HE to growth and prosperity is the higher employability and higher earnings associated with HE graduates. However, if graduates do not have the skills demanded by employers, their chances of being employed diminish.

HE graduates today looking for jobs are facing challenges related not only to their lack of skills. For instance, the 2009 financial crisis triggered increased unemployment rates worldwide, and this effect is likely to persist for a few more years. There are several reasons for this assumption. The recent crisis has been the deepest post-war recession and the most synchronized recession on record. Key sectors such as manufacturing and construction have been hard hit, and unemployment has risen worldwide. MENA countries have been affected by the crisis in various ways; most affected are the GCC, mainly due to the drop in oil prices and the real estate market collapse. For oil producers with limited integration with the international banking system, such as Algeria and Libya, the financial crisis has had less impact. Oil importing countries, such as Egypt, Jordan, Tunisia, and Lebanon, were hit by the secondary effects of the crisis via reduced trade, remittances, and foreign direct investment. In any case, for all MENA countries, recovery will depend on their capacity to develop new markets, and fiscal prudence will be needed. The recent political changes in the region give hope that governance in the region will be more democratic, transparent, and efficient in the long term. However, in the short term, the transition will add some fiscal burden in most countries.

While the impact of the financial crisis on official unemployment rates has been negligible, participation rates in the labor force, which prior to the crisis were already low compared to other regions, have declined (WB,2010). However, increased unemployment rates in the U.S.

and in the EU are also affecting migrant workers there, potentially impacting workers from MENA.

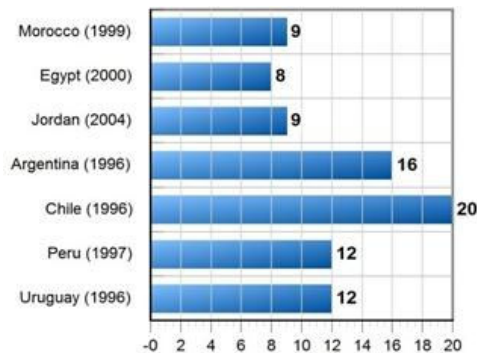
1.1 Higher Education and economic and social returns

The private monetary and non-monetary benefits to HE, together with the positive externalities or social returns to education, have a combined effect that ultimately contributes to economic growth. One critical element is the evidence of higher earnings obtained through HE, based on calculations of wage premiums for university graduates.

The Internal Rate of Return (IRR), a standard measure of the profitability of investing in HE, measures cost and benefits, taking into account direct costs of HE (fees and living expenses), opportunity costs (time it takes to complete degree, and income foregone during this period at the rate of a secondary school graduate salary), the premium wage for a university degree, a higher probability of being employed throughout an individual’s work lifecycle, and a pension premium. Private IRR for OECD countries calculated by Boarini and Strauss (2007) (for tertiary education in general, with no distinction between types of programs or the period for which the degree was earned) showed that in 2001, IRRs ranged from 4 to 14 percent for the twenty-one countries in the analysis. The average IRR was 8.5 percent, lower than previous OECD estimates. According to Santiago et al (OECD, 2008), low average returns were found in countries where there were below average net labor market wage premia, despite low direct and opportunity costs.

An analysis of private returns to HE in MENA countries for a similar period shows that they are close to the OECD average, but well below countries in LAC, as shown in figure 1.1. Although a more recent analysis of rates of return is not available, taking into account the difficulties that university graduates in the MENA region are now facing regarding employment opportunities, IRRs are likely to be even lower.

Figure 1.1 Private rates of return to HE (various years)

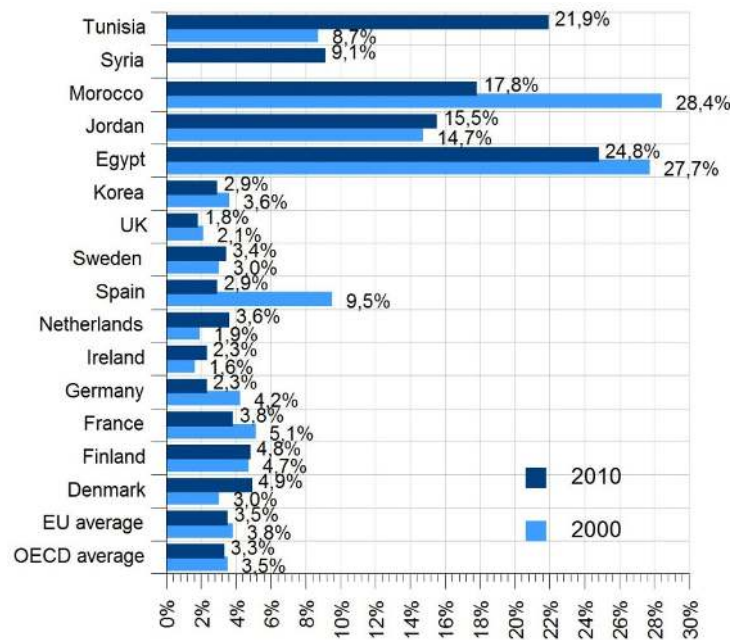


Source: Carnoy 2006.

1.2 Higher Education and employment in MENA

Although unemployment has increased worldwide as a consequence of the 2008-2009 financial and economic crisis, when tertiary education graduates from MENA are compared with those in OECD countries, persistently high unemployment rates for the past decade are observed; in countries like Tunisia, the rate has dramatically increased in the last ten years (see figure 1.2).

Figure 1.2 Proportion of unemployed adults with a tertiary degree (minimum of an associate's degree)

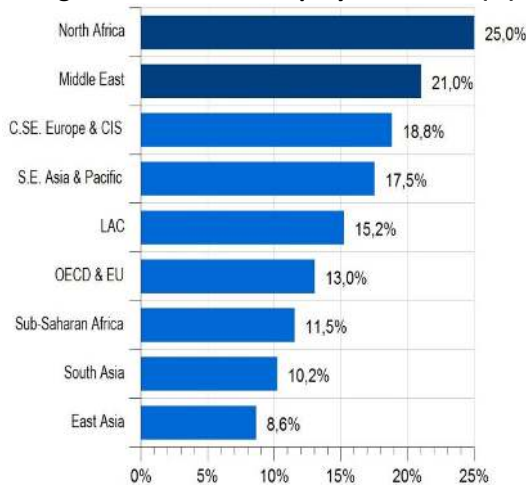


Source: Kosaraju and Zaafrane 2011.

1.3 Unemployment for young people in MENA

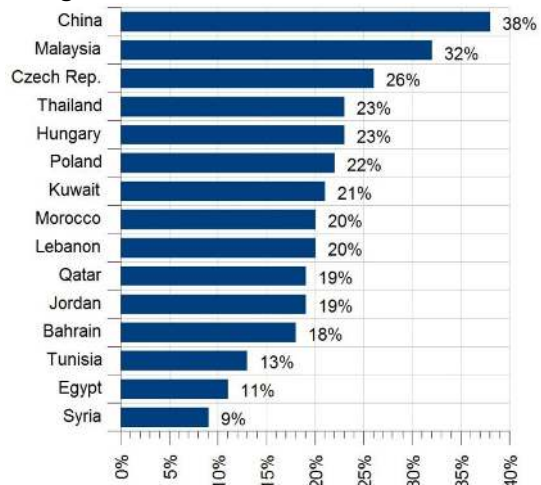
Many MENA countries, especially Arab Mediterranean countries, face important and overlapping challenges. Youth unemployment rates in MENA (21 percent in the Middle East and 25 percent in North Africa) are higher than in any other region in the world. Young women and new educated entrants in the labor market are disproportionately unemployed. Moreover, young entrants to the labor market are more educated than ever before, but are unable to capitalize on the time and resources invested in their education because of a lack of good quality jobs in the respective labor markets.

Figure 1.3 Youth unemployment rates (%)



Source: KILMnet 2006.

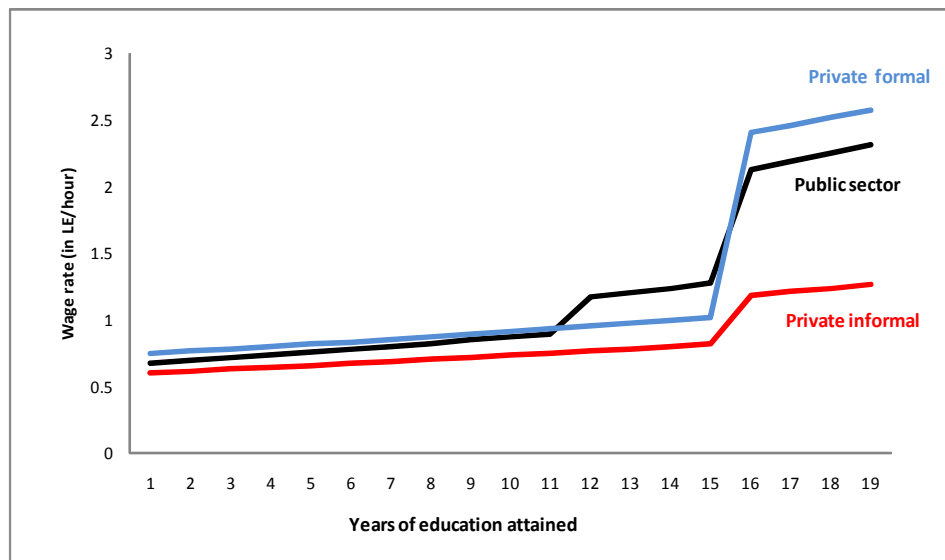
Figure 1.4 Private investment as % of GDP



Source: World Bank 2009.

To cope with scarce formal jobs, young, educated workers are opting to work in the informal sector and/or withdraw from the labor force. It is worth noting that acquiring informal jobs is a way for young, educated university graduates to enter the labor market, gain experience, and eventually move into formal employment. In practice, however, there is little mobility between the formal and the informal sectors. Having to rely on informal sector jobs constitutes an important loss of human capital for young entrants. Returns to education (even among those with university education) tend to be very low in the informal sector. Informal jobs are generally low-wage, which suggests low levels of productivity compared to the formal sector. In reality, net hourly wages among informal workers in the private sector are quite low (figure 1.5).

Figure 1.5 Returns to education per years attained (Egypt 2006)



Source: World Bank estimates using Labor Force Survey data.

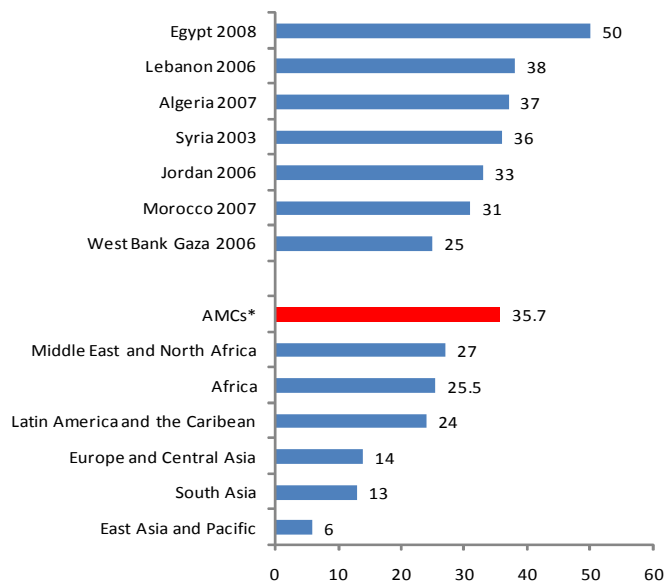
1.4 Main constraints preventing new graduates from getting jobs

(a) *Investments in the private sector remain low and capital intensive.* Despite great improvements in recent years, private investment remains low in MENA (see figure 1.4). Due to high energy subsidies and negative real interest rates, most private investments in MENA focus on capital intensive activities. According to ICA surveys, corruption, unfair competition, and macro-economic uncertainty are important barriers to greater private investment. A recent World Bank regional report (World Bank, 2009) identified the issues of arbitrariness and unequal implementation of the “rules of the game” as the core problems constraining private sector development.

While progress in reforming the rules varies among countries, the region as a whole suffers from discretionary implementation of policies, and from lack of government credibility to change a deeply rooted status quo of privileges and unequal treatment of investors. Not a single country in MENA exhibits the kind of dynamism and economic transformation witnessed in Malaysia, China, the Republic of Korea, Poland, Turkey, and other fast-growing economies. Export diversification is also insufficient. The best MENA performers export around 1,500 goods, most of which are low in technological content, compared to close to 4,000 goods in countries like Poland, Malaysia, and Turkey. The technological content of these exports is about three times lower in non-oil MENA countries than in countries in East Asia or Eastern Europe. Also, firms are less productive than in comparative countries.

(b) *Skills are mismatched.* Results from enterprise surveys indicate that firms identify worker skills and education among their top five constraints to business in the region, especially in Arab Mediterranean countries (AMCs) (see figure 1.6). Employers not only express their dissatisfaction with deficiencies in relevant experience and technical skills but also with soft skills such as personality traits, social graces, interpersonal skills, language, and personal habits. A large share of new HE graduates major in humanities and social sciences. This pattern of enrollment is suited for absorbing university graduates in civil service jobs in the public sector, but appears ill-suited to meet the demands of the recent private sector expansion in the manufacturing and service sectors. Furthermore, despite important efforts in recent years to improve the quality of education systems, they remain largely fragmented and the effect of programs on labor market outcomes of graduates remains unassessed for the most part.

Figure 1.6 Share of firms indicating labor skill level as a major constraint to business creation



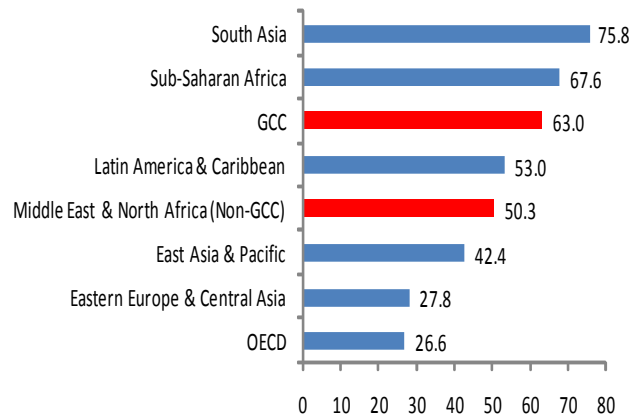
Source: www.enterprisesurveys.org. AMCs Arab Mediterranean countries

(c) *The public sector still distorts incentives.* In many MENA countries, the civil service remains large for the level of development. Despite the fact that the employment growth of the public sector has slowed dramatically in recent years, public sector employment still accounts for a large share of all formal sector employment in many countries in North Africa. Since public sector jobs are still associated with relatively generous medical and retirement benefits, relatively short work hours, and transportation benefits, many educated individuals (mainly women) still queue for public sector jobs. This phenomenon undermines entrepreneurship among young educated workers and contributes to long unemployment spells.

(d) *Labor regulation remains rigid and labor taxes high.* Firing regulations in MENA remain quite strict and firing costs remain high. While the termination of workers due to redundancy is legally authorized in all MENA countries, most countries have complex regulations that require notification, justification, and approval for dismissals. In some countries, employers are even required to comply with stipulated obligations to reassign and/or retrain workers after termination. Furthermore, firing costs involving notice requirements, severance payments, and penalties due when terminating a redundant worker are rather high in most countries in the region.

Protective firing regulations are partially explained by the lack of unemployment insurance schemes in most MENA countries. One indicator generally used to compare firing costs is the “Redundancy Cost Indicator” (RCI). The indicator measures the cost of advance notice requirements, severance payments, and penalties due when terminating a redundant worker, expressed in weeks of salary. The RCI in MENA countries accounts for fifty weeks of salary on average, versus twenty-eight in Europe and Central Asia (ECA), and twenty-seven among OECD countries.

Figure 1.7 Redundancy Cost Indicator (in weeks of salary)



Source: Angel-Urdinola and Kuddo 2010.

(e) *Innovation and investments in R&D are needed to break the low productivity cycle.* In all knowledge-based economies, competition and strong firm turnover are at the core of the innovation process. Moving up the production ladder towards more knowledge-intensive activities in MENA requires improvements in the investment climate that favor innovation-based competition and business entry and exit. To achieve this there is a need to: (i) promote linkages between HE and the private sector; (ii) review governance and financing of HE to promote linkages with private sector firms and increase public-private financing for research; and (iii) design mechanisms (such as technology incubators) to promote the “third mission” of HE organizations and increase participation of students in R&D. Lastly, MENA countries need to capitalize on diasporas abroad by introducing wider measures to encourage the engagement of high-skilled diasporas in research and innovation projects in academic institutions and firms. It is also important to develop strategies to improve the quality and relevance of tertiary education institutions and introduce entrepreneurship skills and business training in education curricula across specializations that can foster innovative thinking and creativity.

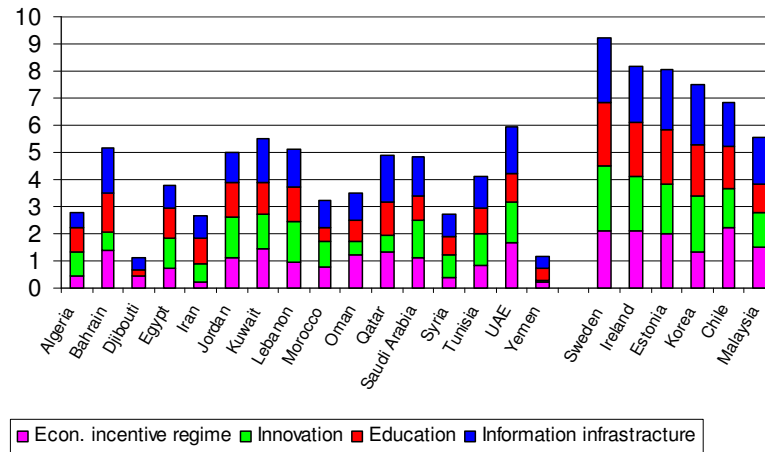
1.5 Higher Education and productivity

HE plays a critical role in providing the basis for the range of skills needed for a productive workforce. HE graduates should be able to enter the workforce with cognitive, behavioral, and social skills that allow them to bring advanced knowledge to solve complex problems, promote new ideas, and engage in diverse cultural environments. How well are MENA countries prepared to move up the value-added chain?

Using broad indicators to benchmark MENA countries against countries such as Sweden, Chile, and Malaysia to see how well prepared they are to participate in a knowledge-based economy, it is clear that large gaps exist. Figure 1.8 presents four indicators that measure: the economic incentive regime; the capacity to develop innovation systems; the performance of

the education systems; and the information infrastructure. In all MENA countries for which information was available, all four indicators are below those of comparator countries. Without a solid capacity to innovate and produce quality services and products, countries in the region will struggle to become more productive and develop more knowledge-based products and services. This will have consequences for overall economic growth, and demand for high-skill jobs will not increase.

Figure 1.8 Knowledge Economy Index in MENA



Source: World Bank 2008.

A recent analysis of demand for skills in East Asia (World Bank, 2011) measured wage premiums for workers, taking into account their education level, and showed that tertiary education premiums have been sector-specific, increasing in services, decreasing in agriculture, and flat in manufacturing. Likewise, it was observed that technologically intensive firms, and to some extent export-oriented firms, demand greater numbers of tertiary educated graduates. This observation supports the already well-documented interaction between technological development and tertiary education.

The association between foreign direct investment, technology, and HE is critical to develop growth and productivity. Most countries in MENA need to produce higher value-added goods and services, and to do so must develop their technological capacity. HE can contribute to increased productivity; as has been the case in East Asia, to absorb technology through foreign firms, a critical mass of local high skill level workers is necessary. However, for this to happen, HE systems need to teach the relevant skills. Furthermore, experience from fast growing economies has shown that developing local technological capacities requires a steady stock of scientists and engineers involved in assimilating and adapting foreign technology.

1.6 How fit are Higher Education systems to meet economic and social demands in MENA?

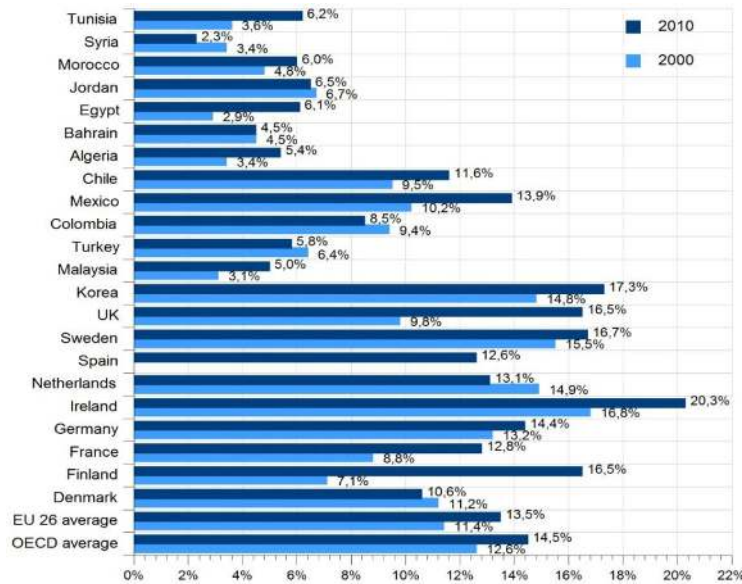
This section takes a broad look at the results HE systems are obtaining in MENA. Expansion, access, quality, outcomes, and labor market insertion are analyzed for countries in the region, and are compared with OECD and fast growing countries.

1.6.1 How well are countries expanding access?

Although countries in the MENA region have done reasonably well expanding access to HE compared to OECD countries, there is still a gap (see figure 1.9). The proportion of the

population aged at least twenty-five years with a tertiary degree is as high as 20 percent in countries like Ireland but is below 10 percent, and in some cases below 5 percent, for MENA countries.

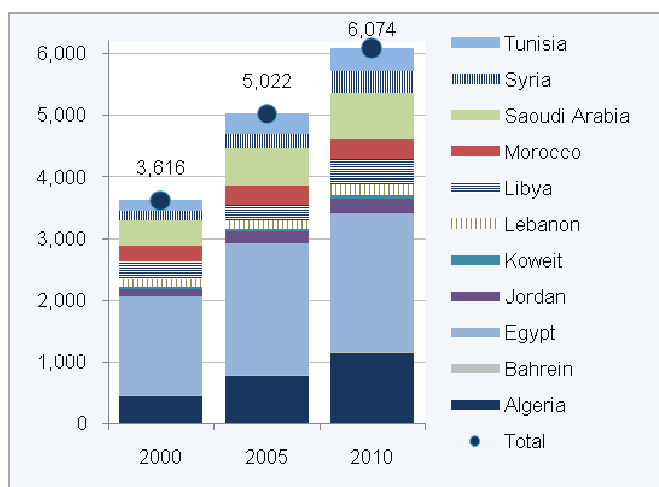
Figure 1.9 Proportion of the population (25+ years) with a tertiary degree



Source: Kosaraju and Zaafrane 2011.

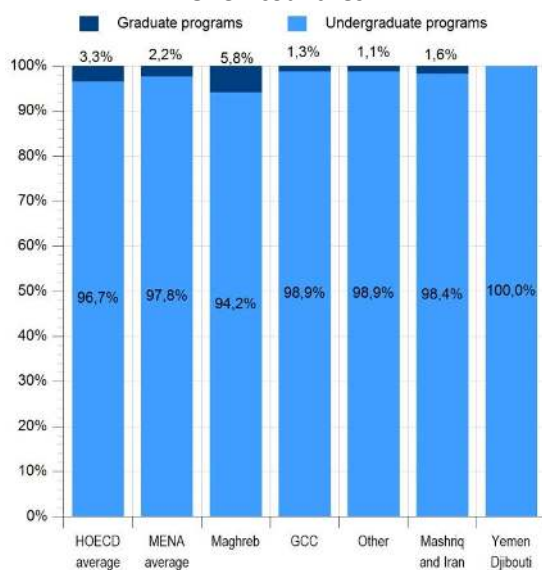
Enrollment trends in the past ten years have increased steadily. However, the majority of students are enrolled in social sciences and humanities. Compared to fast growing economies and highly developed countries such as the U.S. and Norway, there are important gaps in the sectors where enrollments are needed to make more substantive contributions to economic development. Likewise, the vast majority of MENA enrollments are in undergraduate programs. The experience of Japan, Korea, and Taiwan suggests that if a country is to assimilate technology, one-third or more of its university graduates need to have studied science and engineering at the graduate level (World Bank, 2011). Overall, MENA countries are far from this goal, with only 8 percent of students enrolled in engineering.

Figure 1.10 Evolution of tertiary enrollments in selected MENA countries



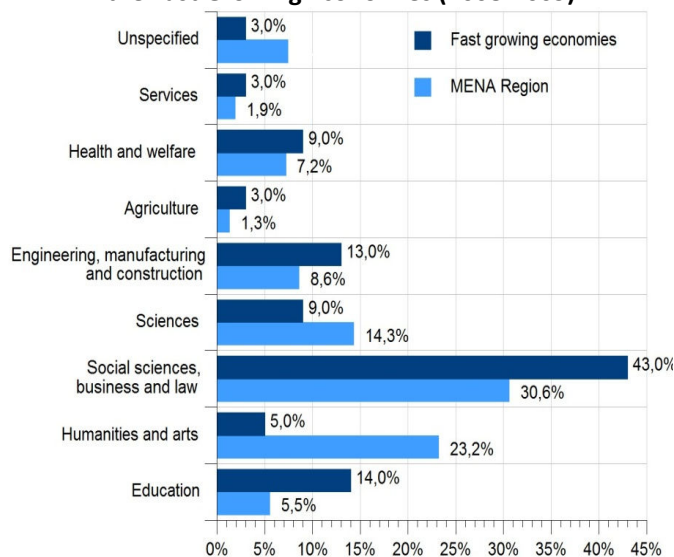
Source: Author's calculations using national sources and UNESCO data base.

Figure 1.11 Enrollment by levels, in MENA and OECD countries



Source: UNESCO.

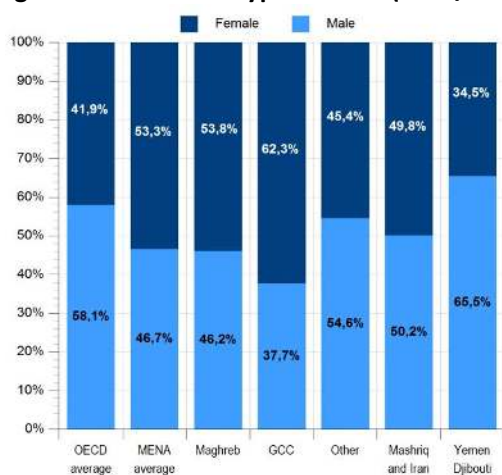
Figure 1.12 Enrollment in HE by sectors in MENA and in the Fast Growing Economies (2008-2009)



Source: Author's calculations using UNESCO data base.

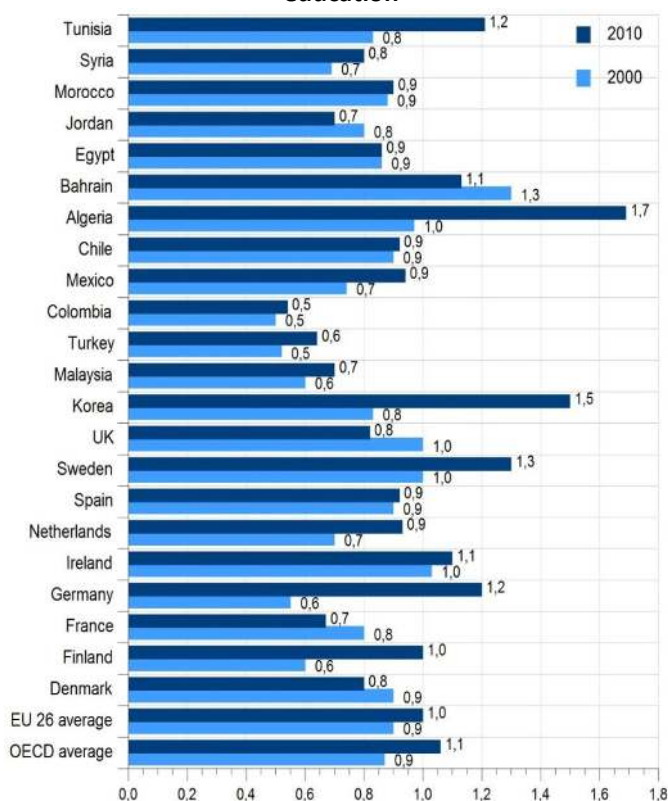
Participation of women in HE has increased in all countries (see figure 1.13), and especially in the GCC countries, where 62 percent of enrolled students are female. This is a significant achievement, not only for the key role that women's education has in terms of contribution to economic growth, but also for women's contribution to social development as a whole. However, while women have increased access to HE, this has not resulted in higher employability. In an analysis done in Tunisia (Jaramillo et al, 2009), where women mostly enroll in four year programs, it was observed that they tend to take longer than men to find a job. Moreover, if they attend engineering programs of five or more years, their chances of finding a job are no different than those of women who graduate from two year engineering programs.

Figure 1.13 Percentage of enrollment by gender in different types of HEIs (2006/2007)



Source: UNESCO.

Figure 1.14 Ratio of female to male attainment in tertiary education



Source: Author's calculations, using UNESCO data base.

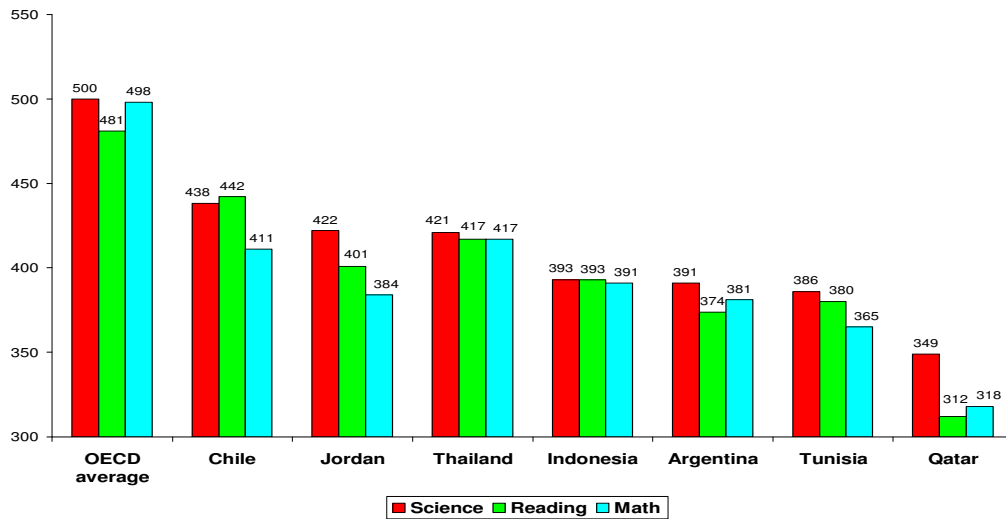
So increasing access, although an important achievement, is not enough; the type and quality of services are equally important. Key challenges still ahead for MENA countries include modifying the type of programs offered and developing new programs to respond to emerging economic and social needs. Graduate programs are also important, as countries in MENA start building their own research capacities. Each country will need to review its enrollment targets, with a careful analysis of sectors, types, and levels of programs to be offered to respond best to its economic and social needs.

One important element to consider is the demand for technical skills. The East Asia report (World Bank, 2011) documents that in Indonesia, the Philippines, and Vietnam, firms emphasized the need for practical knowledge. Technical and Vocational (TVET) graduates in Mongolia, Indonesia, and Thailand are obtaining significant premium wages. In Tunisia, as in Indonesia, the insertion rate of TVET graduates is higher than that of university graduates. These are important observations as countries consider how to balance enrollments between technical, professional, and academic programs to meet labor market demands.

1.7 What outcomes are Higher Education systems producing?

To answer this complex question, several indicators are examined. Learning outcomes in secondary schools provide the basis for cognitive skills to be developed through HE. Program of International Student Assessment (PISA) results for the few countries in the region that have participated show that cognitive skills of high order are quite low. This is critical, as a large proportion of secondary school graduates who enter HE institutions do so with already low levels of cognitive skills.

Figure 1.15 PISA results 2006

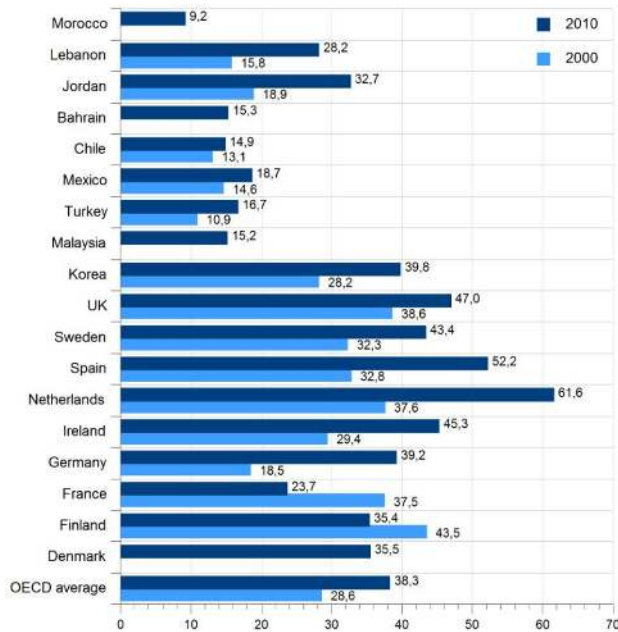


Source: PISA 2006 Results

The completion rate in four year programs provides another indicator. For the countries in MENA for which information was available, completion rates increased between 2000 and 2005 in Jordan and Lebanon, and were higher than in countries like Malaysia, Chile, and Mexico, but were much lower than in Finland, Sweden, Denmark, and the Netherlands (see figure 1.16).

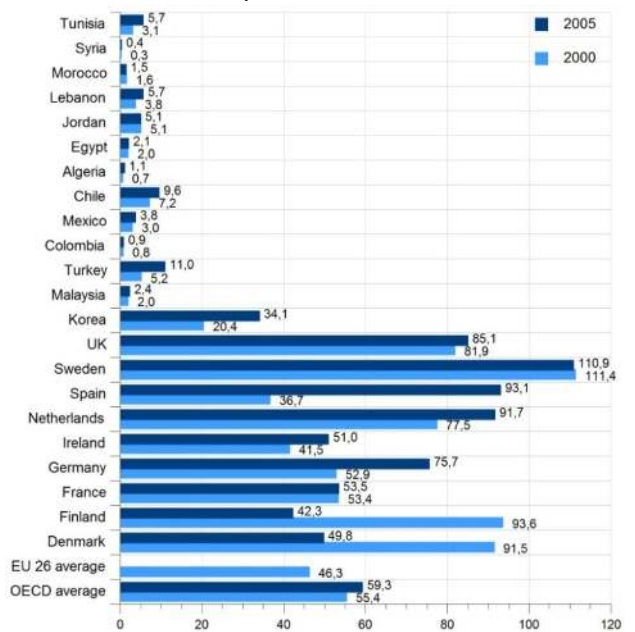
In the absence of student learning outcomes in tertiary education, the number of scientific citations per 100,000 inhabitants is used as a proxy for intellectual contribution to the world body of knowledge. In this regard, the contribution of MENA, as in other developing countries like Malaysia, Chile, and Colombia, is very limited compared to OECD countries (see figure 1.17).

Figure 1.16 Average completion rates in four-year institutions



Source: Kosaraju and Zaafrane 2011.

Figure 1.17 Number of scientific citations per 100,000 inhabitants



Source: Kosaraju and Zaafrane 2011.

Perhaps the most striking indicator is the disproportionately high proportion of tertiary graduates unemployed in MENA (recall figure 1.2). This is a growing concern; in Egypt, e.g., 27 percent of unemployed people in 2006 were university graduates, compared to 9 percent in 2001. Although university graduates still have better choices than secondary school graduates (62 percent of whom were unemployed in 2006), their unemployment rate has increased dramatically in the last seven years.

1.8 Conclusions

Countries in MENA need to make efforts to move towards more value-added, knowledge-intensive activities. This requires improvements in the investment climate to favor more private sector and technology-driven foreign investment. The cycle of high HE enrollment in humanities and social sciences, disciplines more suited for civil service jobs, needs to be broken. As the private sector expands and the manufacturing and service sectors grow, tertiary education institutions need to be ready to produce graduates with the skills required to meet these expansion goals. Tertiary education programs need to be adjusted to develop cognitive, behavioral, social, and technical skills aligned with the rapid changes of globalization. These are important demands of young people in Arab countries and governments need to address them in systematic ways. The following chapters provide some policy options to move in this direction.

Chapter 2: Benchmarking the financial sustainability of Higher Education in MENA

There is a trend in increased tertiary education enrollment worldwide. In OECD countries, the number of students enrolled in tertiary education more than doubled between 1995 and 2004 (OECD, 2008). This is also the case in the MENA region, where enrollments tripled between 1995 and 2009. The expansion of secondary education and the increased number of secondary graduates throughout the region, combined with population projections for the next twenty years, suggest that this upward trend is likely to continue. Although expansion of HE is one component of satisfying greater demand, as discussed in the previous chapter, it is not enough.

The worldwide expansion of HE has in many instances resulted in a dilution of quality, including in OECD countries (Schofer and Meyer, 2005). In addition to rapid expansion, tertiary education systems are seeking to diversify the types of tertiary education available, ranging from university graduate and undergraduate programs, to technical and professional degrees granted by polytechnic institutes, to community colleges and Open University programs. There is also a wide interest in the region for developing e-learning and distance education tertiary programs; for many of the countries in the region, greater provision of private tertiary education is a goal for the near future. Transnational education, particularly in the form of importing institutions, has been the preferred choice in the Gulf countries. In Maghreb and Mashreq, many public and private universities are setting up partnerships with foreign institutions to raise their standards and reputation.

HE systems around the world need the ability to respond to a constantly changing economic environment, and to adjust to the increasingly rapidly changing technology-driven international markets. This is critical for developing countries, and in particular for the MENA region, where expenditures on R&D are quite low and universities are not linked to innovation systems. The expansion of these systems has necessitated increases in financial resources, but this has not been done in the most cost-efficient way in most cases. Although total expenditures on education as a percentage of GDP are high for most MENA countries, the resources spent have not resulted in the economic or social benefits expected, as evidenced by the high unemployment rate of university graduates and low innovation outputs.

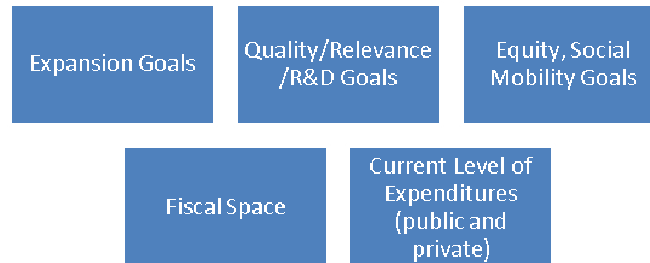
MENA countries faced with the challenge of expansion within fiscal constraints need to seek comprehensive funding strategies. Funding approaches consistent with the goals of the tertiary education system are critical. In determining and defining tertiary education priorities, policy makers must consider four main forces: (i) expanding access; (ii) seeking excellence; (iii) promoting equity and social mobility; and (iv) working within the constraints of available financial resources. The interaction between these forces is discussed next.

2.1 Determining factors associated with educational goals and funding mechanisms in Higher Education

Different HE systems have different goals and priorities, which depend on their level of development and/or national economic and political goals. In general, most countries need to balance expansion goals with provision of services that meet quality and relevance standards according to economic, social, and technological needs. Matching these needs with financial resources is challenging for most countries. In defining priorities for funding higher

education, there are always competing goals. Figure 2.1 illustrates this in the context of the decision-making process regarding prioritization and allocation of funds to support HE.

Figure 2.1 Competing issues in the decision-making process for Higher Education funding



Source: Author's diagram.

Expansion, i.e., seeking to increase access to the majority of the population, is usually a primary goal in most countries. Unlike primary and secondary education, which are recognized as universal rights (i.e., the entire population should have free access), tertiary education is not yet seen as such. Expanding tertiary education is a factor of: demand for HE; completion rates in secondary school; the structure of the supply of programs by type, level, and sector; the financial resources available; and overall national goals. Enrollment goals are related to demand for levels and types of programs. Methodologies to predict the skills needed for future jobs and market demands are always imperfect. Therefore, teaching good cognitive skills and developing the capacity to adapt to new situations and to acquire new learning throughout life are the most critical skills for any education system to provide.

Goals related to promoting excellence and/or increasing the relevance or quality of programs compete with expansion goals. The level of effort needed to provide education services of the type and quality desired is also determined by multiple factors, the most critical being the extent to which the tertiary education system is already producing the expected learning outcomes and how it is responding to the needs of society as a whole. Measuring this is complex. Some indicators used to monitor this include: completion rates; insertion of graduates into the labor market; capacity of the tertiary education system to contribute to institutional development in the given country; capacity to develop R&D and to contribute to the development of innovation systems; and the potential contribution to meet national goals and competitiveness agendas.

Equity, or the goal to promote social mobility or/and build democratic societies, is a third competing goal. Determining to what extent a system is equitable implies measuring to what extent different segments of the population have the opportunity to pursue HE. Complete equity would entail affording all individuals the same opportunities to obtain a university degree, regardless of gender, social or economic status, or geographic location (e.g., rural or urban).

Based on the relative priorities of these main goals, different funding approaches will be appropriate. Financial sustainability is also determined by many factors: the fiscal constraints faced by the state; the level of expenditures already allocated to tertiary education; and an assessment of the needs of the system based on the established priorities. For example, if the main goal is expansion, then using existing resources in more cost-efficient ways to provide access to more students might be most appropriate. If the main goal is improving quality and relevance, then how resources are allocated becomes the key issue. It has been demonstrated that more funding alone, *per se*, does not lead to higher quality. If promoting excellence and investment in R&D is the goal, then the need for additional resources is clear. Finally, when

equitable opportunities are the main goal, targeting financial resources to serve students from disadvantaged groups becomes important. In this case, funding for HE needs take into account the financial needs of different population groups, particularly targeting public funds towards low income and underserved areas or population groups. Figure 2.2 illustrates how funding mechanisms and educational priorities are linked.

Figure 2.2 Linking tertiary education priority goals to funding approaches



How to develop sustainable financing strategies and different tools within each of the funding approaches linked to these policy goals are discussed in chapter 3. In the next section, the extent to which MENA countries' funding approaches are sustainable is examined.

2.2 Can MENA's funding approaches sustainably meet the needs of Higher Education?

The query is divided into three sub-sections:

- How much funding is currently available, and what is the fiscal space to increase public funds for HE systems in MENA?
- How equitable is tertiary education?
- To what extent are current financing approaches fit to meet access, quality, and relevance goals?

2.2.1 How much funding is currently available and what is the fiscal space to increase public funds for Higher Education systems in MENA?

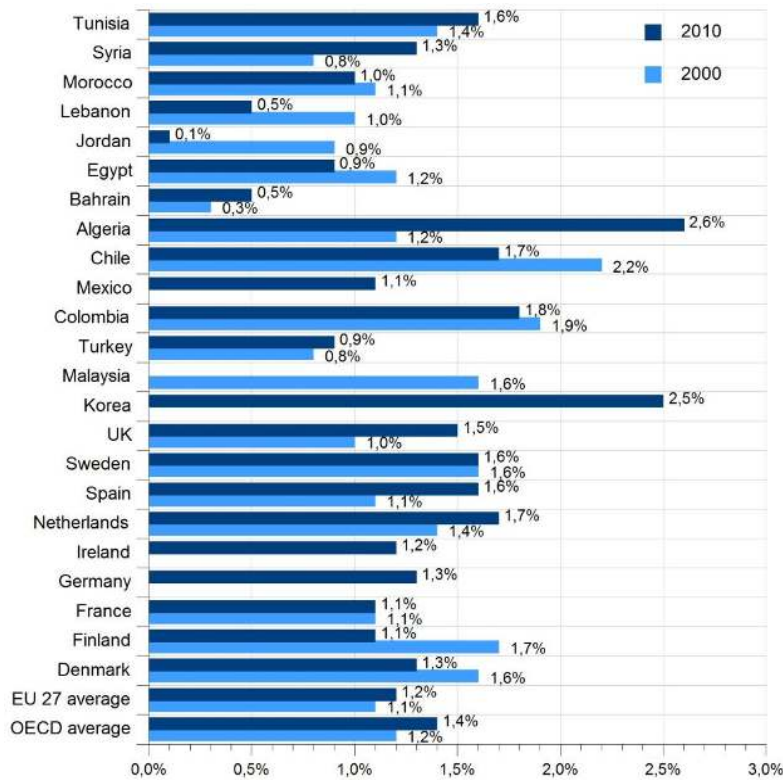
As mentioned earlier, the financial and economic crisis has affected countries differently, and the Arab Spring and its political consequences are changing the political and economic landscape in the region. Based on recovery from the recent economic crisis and projections done by the World Bank (2010), GCC countries are recovering well due to stimulus packages, and growth is expected to stay around 4 percent, a remarkable comeback, but less than the pre-crisis level of 6 percent. For developing oil producers, growth is also expected to be at 4 percent, higher than the pre-crisis level. The recovery of oil importers will depend crucially on their key markets, especially the EU and the GCC. The weak recovery in the EU will drag down growth, especially in countries which have EU zone countries as main trading partners. Therefore, for this set of countries, growth is expected to decline, and long term investments and private sector development will be needed to regain pre-crisis growth rates. Fiscal policy is expected to continue to be expansionary as countries use different measures

to stimulate demand, and in some cases, to stimulate private growth. However, fiscal expansion is also having an adverse effect. For some countries, including Egypt, Jordan, Lebanon, and Yemen, fiscal space is limited and creates an obstacle for long term growth. Therefore, painful fiscal adjustment is in store in the coming years for most countries in the region (World Bank, 2010).

Expenditures on HE are already high in MENA countries. Tunisia spends 1.6 percent of its GDP, while Algeria spends 2.6 percent, and Libya spend more than 3 percent, around 2.5 times the average of the EU, and also above the spending level of the U.S. (2.7 percent). However, the expenditures on R&D are much lower than in OECD countries. On average, MENA countries spend 0.39 percent of GDP while the OECD average is four times that, at 1.84 percent of GDP. As discussed above, enrollments in HE have increased dramatically in the past decade, and given the already high allocations to the sector, governments face fiscal constraints in increasing financial resources at the pace of enrollment growth. As a consequence, the quality of services has dropped; additionally, most countries have not been able to realize gains for their substantial investments in education via labor market participation, innovation, or R&D outputs.

A comparison of expenditures on HE between OECD and MENA countries shows that countries like Morocco are spending less than the OECD average, and countries like Jordan have dramatically decreased their funding for tertiary education in recent years. In comparing levels of expenditures, there are important distinctions to make. One rough indicator is the level of total expenditures compared to GDP, helpful for establishing international comparisons (see figure 2.3).

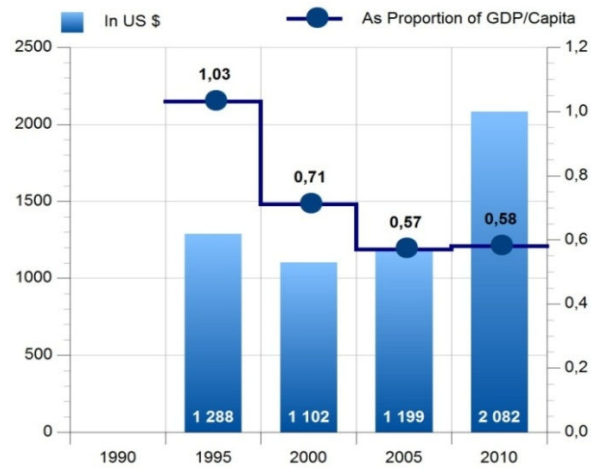
Figure 2.3 Total spending on tertiary education as a percentage of GDP



Source: Kosaraju and Zaafrane 2011.

Figure 2.4 shows per student expenditure as a proportion of GDP/per capita. This indicator takes into account public expenses on HE divided by total enrollments. In the past fifteen years in MENA, total per student expenditures have increased, while per student expenditures on a GDP per capita basis have decreased. This is explained by the increased population growth experienced by MENA countries for the same period. Per student expenditures as a percentage of GDP per capita decrease as countries get richer; e.g., 36 percent on average for OECD countries, and 58 percent in MENA. However, only comparing per student expenditures in U.S. dollar equivalent, the differences between MENA and OECD countries are substantial (see figure 2.5).

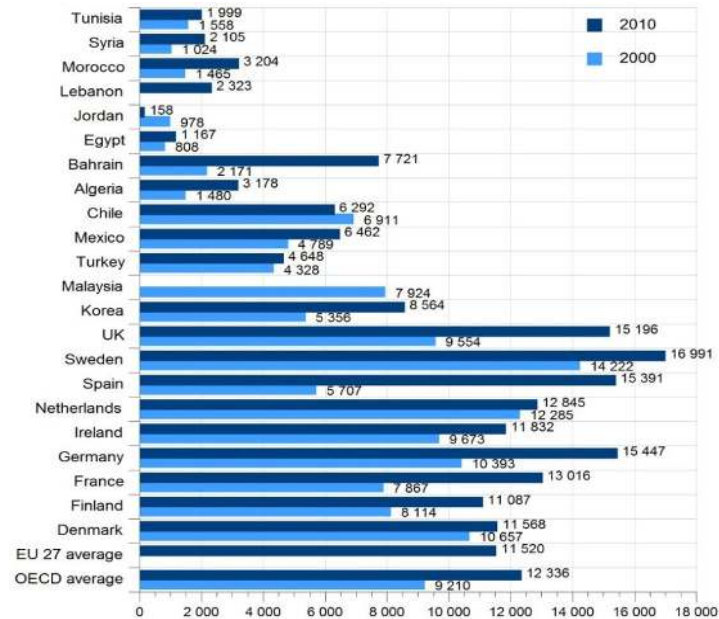
Figure 2.4 HE per student expenditures as a proportion of GDP/capita (in USD)



Source: Author's calculation from various sources.

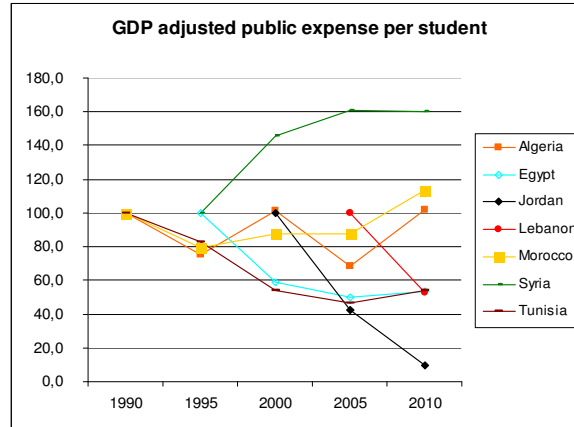
Note: Weighted average of 9 MENA countries: Algeria, Bahrain, Egypt, Libya, Jordan, Lebanon, Morocco, Syria, and Tunisia.

Figure 2.5 Per student public expenditure (in USD)



Source: Kosaraju and Zaafrane 2011.

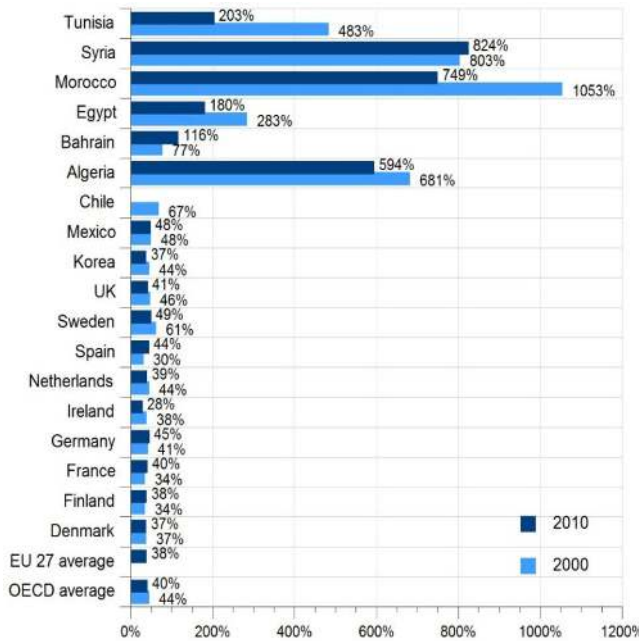
Figure 2.6 Public expense per student as a percentage of GDP



Source: UNESCO, World Bank, National Statistical Institutes; Author's calculation.

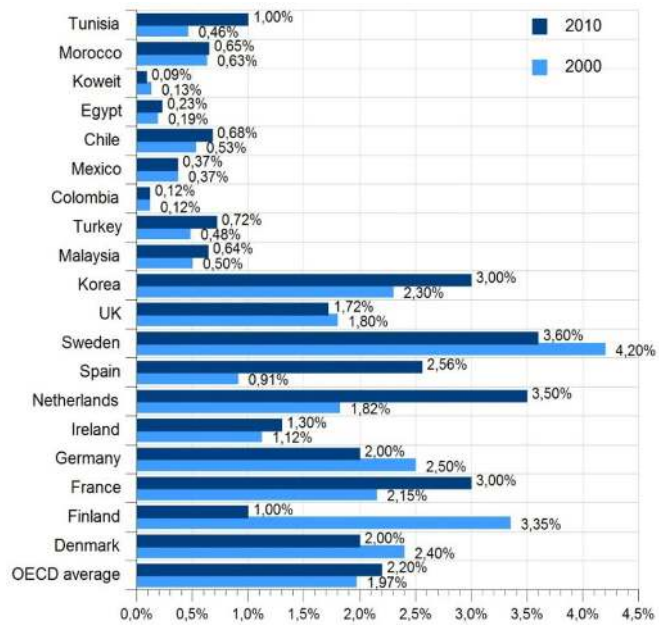
Another important indicator is the cost of a graduate as a proportion of per capita GDP. This is calculated using per student expenditures, but the denominator is the number of graduates instead of the number of students. The high costs of producing a graduate in MENA are quite remarkable compared to OECD graduates (see figure 2.7). R&D expenditures as percentage of GDP are also very low compared with OECD countries.

Figure 2.7 Cost of a graduate as a percentage of per capita GDP



Source: Kosaraju and Zaafrane 2011.

Figure 2.8 R&D expenditures as a percentage of GDP

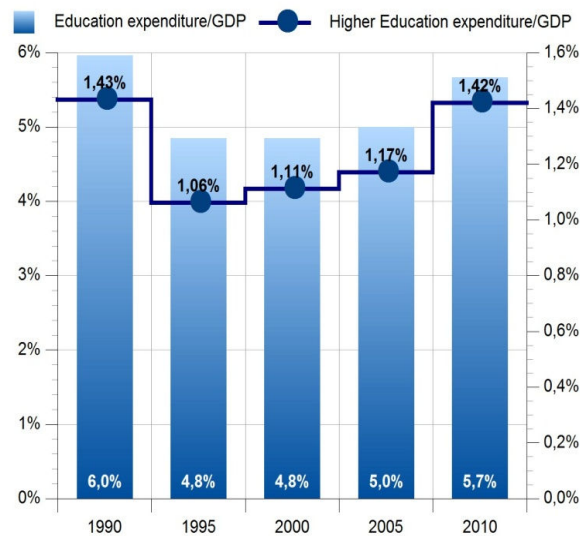


Source: Kosaraju and Zaafrane 2011.

Two important indicators related to fiscal space are total education expenditures and total public expenditures on tertiary education, both expressed as a proportion of GDP. In the past twenty years, expenditures for both total education and HE were at their peak in 1990, reaching 6 percent and 1.43 percent of GDP, respectively. The level of expenditures dropped in the mid 1990s and increased again in 2010. Total education expenditures did not reach the

peak of 1990 again, while expenditures on HE did. Thus, MENA countries are already spending at the highest levels in terms of GDP.

Figure 2.9 Evolution of education and HE expenditures as percentage of GDP in MENA



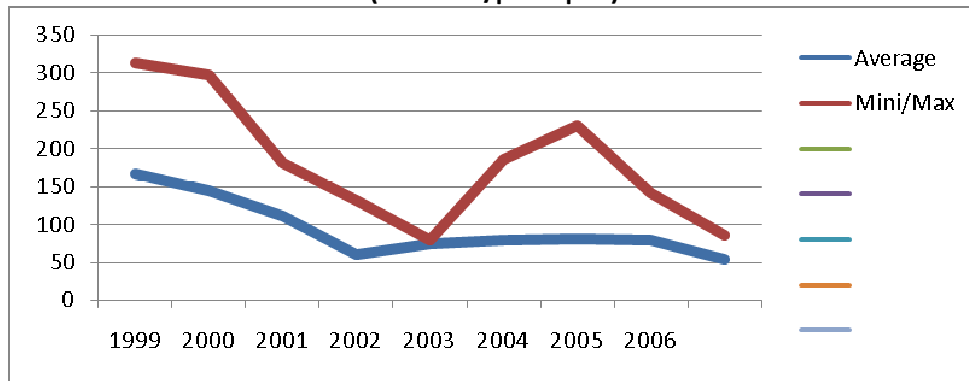
Source: Author's calculation, using various sources.

This suggests that MENA countries will need to determine how to obtain new sources of funding. With increased enrollments worldwide and new modes of delivery, as well as a more diversified student population, new funding mechanisms have appeared in countries around the world. The burden on public resources has forced the need to look for alternative sources of funding even for high income countries. From 1995 to 2004, in sixteen out of the twenty OECD countries for which there was information available (OECD, 2008), there was an increase in expenditures from private sources. The proportion of private sources varies widely, from more than 50 percent in Korea to less than 5 percent in Austria. Although these are significant differences, and in each country there are different mechanisms for funding, higher private funding seems correlated with higher participation rates. This is particularly striking in Korea, where the student support system is not as developed as in other countries such as Australia, Chile, the Netherlands, and New Zealand, or the U.K., where private participation is high and student support systems are in place (OECD, 2008).

Worldwide trends show that public funding for HE is decreasing (see figure 2.10). This figure is based on calculations by Millot (2011) using a sample of twenty countries,¹ including OECD, middle and low income countries. This trend is consistent with an OECD review (2008) that showed that in eleven of thirteen countries for which information was available, the proportion of private spending increased between 1995 and 2004 (France and Ireland were the exceptions).

¹ Korea, Philippines, Lebanon, Japan, Argentina, Azerbaijan, Swaziland, Burundi, Lesotho, Mozambique, Malawi, Azerbaijan, Kazakhstan, Liechtenstein, Madagascar, Togo, Burkina Faso, Niger, and Ethiopia.

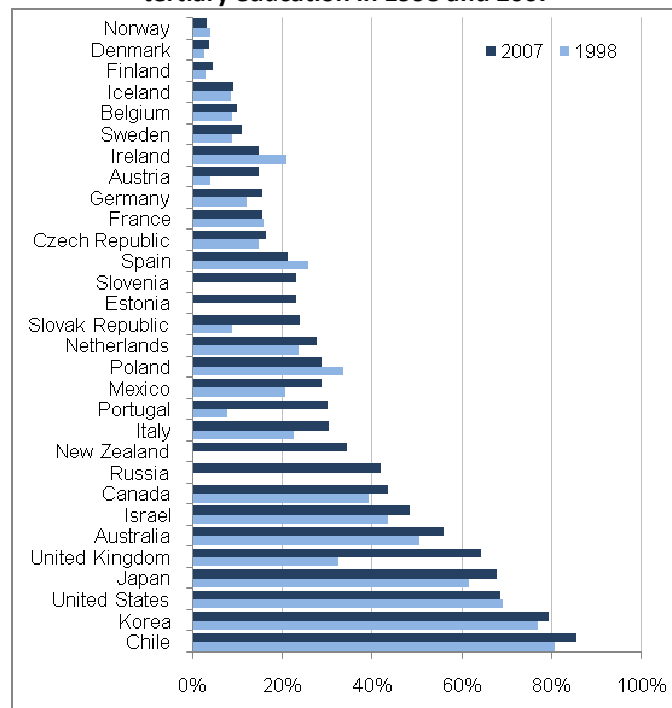
**Figure 2.10 Public HE expenditure per student in 21 countries
(% of GDP/per capita)**



Source: Millot 2011.

In summary, overall MENA countries' expenditures on HE as a proportion of GDP are high, and even higher on a GDP per capita basis, despite low expenditures on R&D compared to OECD countries. Some exceptions are Jordan (which has dramatically decreased its funding for HE in the past five years, to less than 0.2 percent of GDP); Lebanon (which has decreased to 0.58 percent of GDP); and Egypt (0.89 percent of GDP). However as will be seen in the following sections, to meet the expansion and quality and relevance goals required from the tertiary education institutions, it will be necessary to increase funding. Increasing public resources to meet the demands of higher education, given the fiscal constraints, is unlikely. Therefore countries in the MENA region will need to diversify the sources of funding and explore ways to increase private funding for higher education. How to do this is discussed at length in future chapters.

Figure 2.11 Public subsidies for financial aid to students as a % of total public expenditures on tertiary education in 1998 and 2007



Source: Santiago, using OECD data.

2.2.2 How equitable is tertiary education in MENA?

Case studies from Egypt² and Tunisia³ based on household data and tracer studies were analyzed to highlight trends in access to HE by secondary school graduates, based on a number of variables. Although the analysis includes only two countries, statistics show that income disparities and the urban versus rural divide affect access to HE in most MENA countries.

2.2.2.1 Association between access to HE and income levels in Egypt and Tunisia

People from the highest income levels have higher chances of accessing HE in Egypt. Seventy-six percent of those with access to HE came from a higher than median income level, compared to only 9 percent for the population of the poorest quintile. Furthermore, access to HE programs with higher employability characteristics is determined at a very early age in both Egypt and Tunisia. In Egypt, pupils in general secondary schools⁴ come from households with an income level twice as high as pupils in technical secondary schools. Attending a technical secondary school makes it virtually impossible to access a university. In Tunisia, access to HE is determined by the centrally administered admission policy: the

² The Labor Market Panel Survey (2006) allowed for a comparison of trends over time for income level, gender, rural-urban, and parent's educational attainment for those who had access to HE.

³ A tracer survey ("Enquête sur l'insertion professionnelle des diplômés de l'enseignement supérieur de 2004") was designed to collect information on the labor market insertion of recent graduates. The survey was conducted at two different points in time: 18 months and 3 ½ years after graduation. The sample was based on 97 percent of the 2004 graduates.

⁴ Attending a general secondary school is the only chance that students have to be prepared to enter HE.

choice of program is determined by a centralized system, the “système national d’orientation universitaire,” which places students in a certain program given his/her preferences, his/her scores at the BAC, the BAC stream, and the quota set by the ministry for each field of study. Also, the analysis demonstrated that only two BAC streams are conducive to 5+ year programs: Math and Experimental Sciences. Yet, the most popular stream is Humanities, most often leading to four year programs, where most of the student population is female.

Regional location is a strong determinant of HE access in both Egypt and Tunisia. There is a strong difference in access between urban and rural areas, such as in the South or North. Cairo and Alexandria represent only 38.2 percent of the total population but account for 53 percent of the HE student population. This compares with 24.2 percent of the population in the North and South Valleys, who represent only 11.3 percent of the student population (World Bank/OECD Report, 2009). An analysis of enrollment rates by governorate (Al Araby, 2009) yields similar results, and is corroborated by World Bank analysis (Jaramillo et al, 2010). In Tunisia, there are clearly more 4+ year programs in urban than in rural areas. There are also more two year programs in the South than in other regions. Regional disparities and urban versus rural divides affect opportunities for HE in most MENA countries.

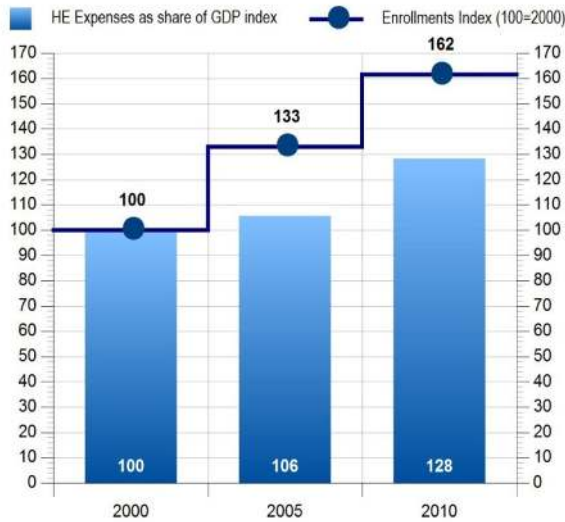
2.2.2.2 How does it all fit together?

The level of resources needed if HE systems were expanded at the current levels of growth is now examined. While Saudi Arabia, the Libyan Arab Jamahyria, the West Bank and Gaza, and Tunisia have achieved “universal” secondary schooling, Egypt, Syria, and Morocco are not there yet. However, due to huge recent increases in primary schooling, these countries will catch up in the near future. The West Bank and Gaza is the only part of the region where the gross enrollment rate in primary schools is inferior to that in secondary education, which will probably lead to a medium term decline in both secondary and tertiary schooling.

A typical shape of tertiary schooling growth is that of Tunisia, which experienced a rapid increase in the number of students between 1990 and 2005. The rate of growth has since declined. In the first period of growth, enrollment accelerates up to an inflection point, usually at around 25 percent of gross enrollment in HE, at which point the growth rate starts to decrease. While the actual inflection points vary across countries, most are observed between 20 and 30 percent. Although many countries do not publish exhaustive enrollment data for years prior to 2000, the trend of the last ten years indicates clear-cut separations between countries that have not yet experienced the “student surge” (e.g., Syria, Morocco), those that are in the middle of this typical tertiary “massification” period (e.g., Algeria), and those that are close to the end of that transition, and that will be confronted with a slower rate of growth in the coming years (e.g., Egypt, Tunisia, Lebanon, Jordan).

The rate of increased expenses as share of GDP was calculated and compared with the rate of enrollments for the past ten years for a set of MENA countries. It can be seen that enrollments have already increased at a higher rate than expenses (see figure 2.12).

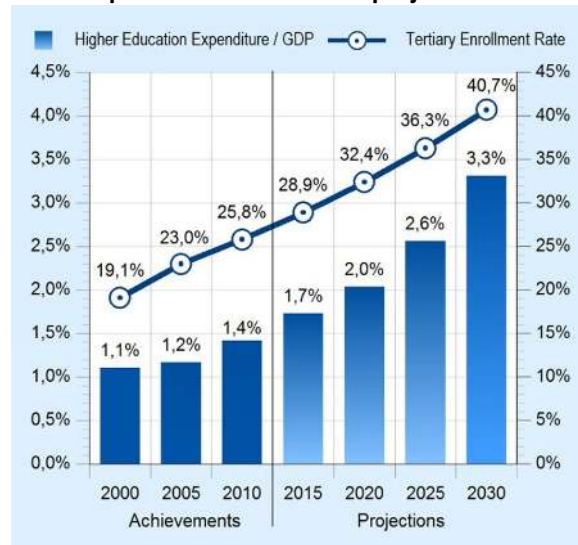
Figure 2.12 HE expenses as share of GDP index and Enrollments Index (100=2000 index)



Source: Author's calculation.

Note: Weighted average of 11 MENA countries: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Morocco, Saudi Arabia, Syria, and Tunisia.

Figure 2.13 HE expenses as share of GDP and tertiary enrollment rate: past trends and future projections

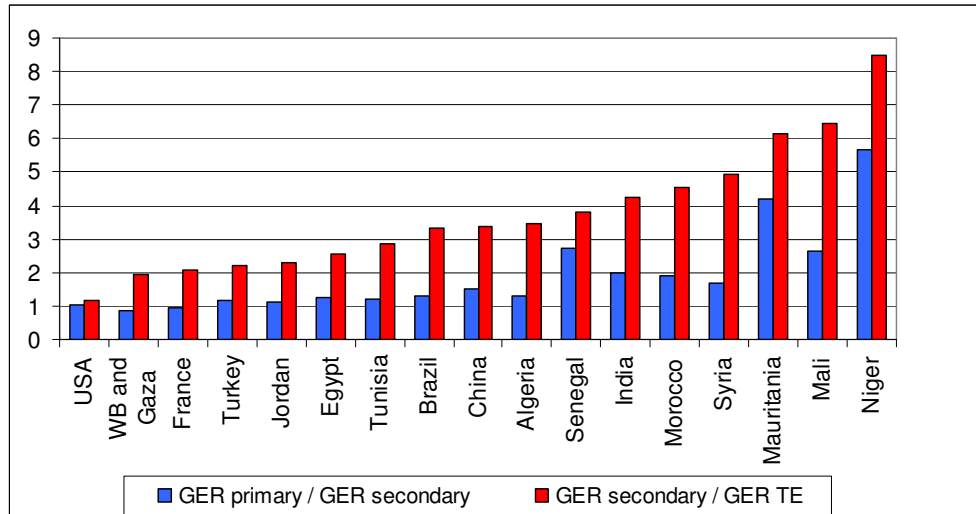


Source: Author's calculation.

Note: Weighted average of 11 MENA countries: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Libya, Morocco, Saudi Arabia, Syria, and Tunisia.

Using the same rate of enrollment as observed in the past ten years, enrollments up to 2030 were calculated, as was the level of financial resources needed in terms of GDP to meet this increase. Based on this calculation (not taking into account additional resources needed to increase R&D expenditures or make any quality improvements), by 2030, MENA countries on average will reach 40 percent enrollments in HE, and will need to spend 3.3 percent of GDP. To reach this level of expenditure, sources of funding other than public ones are clearly needed. Additionally, during the “tertiary surge,” the number of students increases at a rate even higher than 10 percent. It will be almost impossible for any country to increase public resources at that pace, unless the country is oil- or natural gas-rich. As noted earlier, the current levels of 1.7 percent are already high. Identifying other sources of funding is discussed at length in the chapters ahead.

Figure 2.14 National “ratios of enrollment ratios”: an indicator of coming challenges

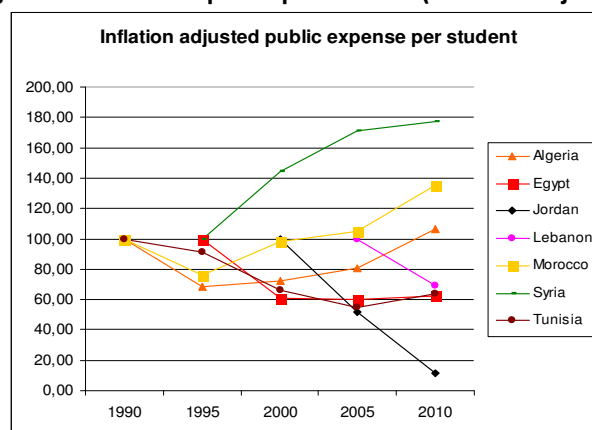


Source: UNESCO data. Author’s calculation.

In a “stabilized” education system, where enrollment has stopped increasing significantly, the ratio of gross enrollment ratio in the primary cycle (GER1) divided by enrollment in the secondary cycle (GER2) is between 1 and 1.5, which means that the transition rate between primary schooling and secondary schooling is around two-thirds. Similarly, a transition rate of 50 percent between secondary schooling and universities would yield a ratio equal to 2. In figure 2.14, the ratio of GER2 to GER3 (gross enrollment in tertiary education) is higher than 2.5 in Egypt, Tunisia, Algeria, Morocco, and Syria. Apart from Turkey, the West Bank and Gaza, and Jordan, most Mediterranean and Middle East countries will therefore face either a sharp increase in enrollment or will have to maintain a low transition from secondary to tertiary education. Generally speaking, a GER2/GER3 ratio of 3 is correlated with a 50 percent increase in the number of students, a ratio of 4 with a doubling, and a ratio of 6 with a tripling. The same kind of projection can be made to assess the pressure on secondary education. This graph disentangles the effects of the education transition from those of the demographic transition by putting the emphasis solely on education transition effects.

Coping with tertiary massification not only requires the system to bear the cost of that increase in the number of students:, but emerging countries also have higher inflation rates on average (the “Balassa-Samuelson effect”), so that the necessary increase in nominal public expenses might reach 15 percent a year to maintain the public expense per student at a constant “real” level. Moreover, education is an economic activity, where equipment costs increase with inflation and sometimes even faster. Figure 2.15 shows that the only countries that managed to increase the real public spending per student in the recent past were those at the very early stage of the education transition (e.g., Morocco, Syria) or those that export oil and/or natural gas.

Figure 2.15 Public expense per student (inflation adjusted)



Source: UNESCO, World Bank, National Statistical Institutes; Author's calculation.
 Note: Base 100=1990, when data were first available.

This makes it even more difficult for emerging countries to finance their tertiary education systems in a sustainable way, to keep the public expense at a sufficient level, and therefore to maintain the quality of schooling at the same time.

2.2.3 Assessing financial sustainability

Based on the factors described above and using data for MENA countries, the financing gap is classified as a function of combined needs for expansion, quality, equity, current expenditures, and fiscal space (see table 2.1). Additionally, the extent of the financing gap is rated as medium, high or low for a group of countries. The most appropriate type of funding approach, based on the needs, is also suggested. In the chapters ahead, different funding approaches and financing tools for each are described in more detail.

Table 2.1 Fiscal constraints and financing approach

Fiscal constraints and sector needs	Financing approach
Low fiscal space, high expansion needs	Additional revenue, private sources, cost-sharing
Low fiscal space, high quality/relevance needs	More efficiency in using resources, link funding to performance
Medium to high fiscal space, high quality/relevance needs	Link funding to performance, prepare for the future, build capital and endowments
Equity concerns	Target public subsidies, develop student aid programs

Table 2.2 Summary of financing needs and financing strategies recommended

Countries	Fiscal Space	Current Expenditures on HE	Expansion Needs	Quality/ Relevance Needs	Equity Issues	Financing Gap Level	Financing Strategy
Algeria	Low	High	Medium	High	NA	Medium	Link Funding to Performance
Bahrain	Medium	High	Medium	High	NA	Medium	Link Funding to Performance, Preparing for Future, Build Endowments
Egypt	Low	Medium	High	High	High	High	Additional sources of funding Link funds to performance Targeting subsidies
Lebanon	Low	Low	Medium	NA	High	High	Additional resources Link fund to performance Target public subsidies
Jordan	Low	Low	Medium	High	High	High	Additional resources Link funds to performance Target public subsidies
Morocco	Low	High	High	High	NA	High	Additional resources Link Funds to Performance
Saudi Arabia	Medium	High	Medium	NA	NA	Low	Link funds to performance Prepare for Future, Build Endowments
Syria	Low	High		Medium	NA	High	Additional Resources
Tunisia	Low	High	Low	High	High	High	Additional sources of funding Link funds to performance Target public subsidies

Note: NA = Not available.

In summary, most of the countries in MENA have low to medium fiscal space, and significant challenges related to expansion, quality, relevance, and equity. To meet these goals it will be necessary to increase financial resources and use the current funding in ways that are better suited to obtain results. In the near future it will be quite difficult to add taxes, therefore most countries in the region will be confronted with finding alternative sources of funding, such as cost-sharing mechanisms, promoting private provision of HE (e.g., philanthropic resources), and generating revenue.

Chapter 3: How to use current funding more effectively: linking Higher Education policies and priorities with allocation mechanisms and tools

The previous chapter described the need to increase resources to finance HE systems and showed how pressure on public finances, combined with the recognized necessity to strengthen HE systems to produce better results, has also led governments to develop new allocation mechanisms to improve the efficiency of spending. Improving the use of existing resources is critical and has led to the worldwide trend of moving from untied to results-based budget allocations. This chapter will present information on results-based allocations already being used in MENA countries, and will provide a framework for linking allocation of funds to priority goals such as access, quality, relevance, and equity. Another recent trend has been to move from direct to indirect funding,⁵ giving higher education institutions (HEIs) more flexibility while demanding increased accountability.⁶ Starting in 2002, a series of reforms, mainly in Anglo Saxon countries, was introduced to increase accountability. This has meant a transfer of power from researchers/academics and the state to intermediate bodies, sometimes known as “buffer bodies,” mainly by determining allocations through competitive mechanisms. These changes came with increased institutional autonomy, and allowed governments to use different governing instruments to promote their policies. The use of these competitive tools, aligned with the “New Public Management” reforms, helped universities transition into more entrepreneurial organizations, and thus enabled them to widen their capacity for generating revenues.

As discussed in chapter 2, there are three funding approaches that fit the above description: (i) increased efficiency in using resources; (ii) linking funding to performance; and (iii) targeting public subsidies. Respectively and combined, these address the fundamental tertiary education policy goals of access, quality, relevance, and equity.

A switch from traditional to more results-based allocation mechanisms could render HE systems more efficient, provided the switch corresponds to political will and is implemented in a thorough, transparent, and fair manner. Yet the gains of a shift will not be sufficient to cover the underfunding of HE in the MENA region. In particular, the low spending per student might only allow a very narrow margin of overall improvement. Therefore, reforms in financing HE need to supplement better use of current funds with new sources. In this chapter, the focus is on using current funds in more effective ways, while chapters 4, 5, and 6 focus on identifying new sources of funding.

Despite the limits to achievable efficiency gains, the main advantage of using current funds in more effective ways is that it considerably limits the political economy risks compared, for instance, to the introduction of any cost-sharing measure. Yet the retained “allocation mix” should reflect the country, its priorities, and its specific circumstances. Therefore, different allocation mechanisms will suit different countries; there is no one single solution that will prove most effective in all circumstances.

In the MENA region, the 2011 revolutions will have a strong impact on the way politics are conducted in the future. Populations have appealed for stronger accountability across the board. Moreover, the role played by unemployed yet educated youth, combined with the already identified shortcomings of HE in the region, will likely also trigger reforms. This could lead to short-term actions favoring access and alleviation of the broken school-to-work

⁵ See Salmi (2011).

⁶ More details on the recent trends in HE can be found in Altbach et al (2009).

transition process. This could also lead to increases in public positions or creation of temporary (partially) subsidized jobs in the private sector. In such cases, governments run the risk of taking short-sighted stabilization actions rather than solving systemic issues with a longer term perspective. At the same time, the possibility of introducing change also represents a formidable opportunity to try new approaches, including increasing university autonomy, accountability, and, through innovations in policy-making, enhancing the results that higher institutions have in providing the younger generation with the skills needed to build solid and democratic societies.

Taking into account the budget constraints of governments and the challenges faced by increased demand and quality and relevance concerns, a properly defined and well thought through mix of short, medium, and long term measures is needed. In addition, reforming the “allocation mix” with the priority goals in mind could be a way to gain benefits without additional cost (e.g., the cost of legislation and reforms in the mechanisms currently used to allocate, use, and monitor budgets).

3.1 Financing Higher Education supply and demand

Building on a classification of funding allocations described by Salmi and Hauptman (2006), one basic distinction is whether resources are transferred or allocated through demand-side mechanisms (i.e., students) or through supply-side mechanisms (i.e., institutions). In addition, allocation mechanisms range from untied negotiated funding, to competitive allocations and block grants with no performance criteria, to performance-based funding. Figure 3.1 (modified from Salmi, 2011), presents a summary of the variety of mechanisms used to transfer funds, and notes whether they imply some kind of performance criteria, if they follow competitive mechanisms, and if they fund the supply or demand side of HE. In the following section, a summary of the most commonly used supply-side mechanisms is provided. This is followed by a discussion of demand-side instruments and some of the advantages of each type, as well as examples of how they are used in MENA.

Figure 3.1 Resource allocation matrix: dimensions of performance, competition, and demand and supply

		Negotiated Allocations			
		Q1	Q2	Q3	Q4
No Performance Criteria					Performance-Based Criteria
	Entitlements (S) Earmarked Funds (S) Funding Formulas (input-based) (S) Vouchers (D) Tax Benefits (D)		Funding Formulas (output-based) (S) Performance Contracts (S)		
	Need-based Grants and Scholarships (D) Student Loans (D) Universal Tuition Fees (S) Philanthropic Resources (S)		Merit-based Grants and Scholarships (D) Merit-based Student Loans (D) Merit-based Vouchers (D) Dual-Track Tuition Fees (S) Competitive Funds (S) Sale of Products and Services (S)		
		Competitive Mechanisms			

Source: Author’s interpretation, modified from Salmi 2011.

Note: (D): demand; (S): supply.

3.1.1 Financing the supply of Higher Education: public funding of Higher Education Institutions

Typically, a large share of public financing goes to HEIs themselves and is used for two main purposes: (i) teaching (this includes instruction, operations, and investments to allow instruction and operations); and (ii) research (basic and/or applied). Depending on the structure of the institution in question, financing for both purposes may be combined.⁷ Furthermore, public funding generally goes to public institutions. However, a growing number of countries (e.g., New Zealand, Chile, and, in the MENA region, Lebanon⁸ and some Mashreq countries⁹) allow for private providers to compete for public funding for either training or research (see box 3.1 for additional details on Lebanon). Finally, governments can directly finance HEIs or set up agencies devoted to the disbursement of funds on the basis of a detailed mandate or to meet specific policy and priority goals. While the first option might theoretically decrease transaction costs by cutting intermediation, the second option might provide a more "politically-neutral" mechanism to distribute funds among different institutions.

Box 3.1 Lebanon – A Unique Hybrid System in the MENA Region

Started in the 1800s, by 2009 Lebanon's HE system included one single public university (which hosted about half of all registered HE students), 27 private universities, and 12 private specialized higher institutions. Contrary to most other countries in the MENA region, Lebanese public funding can benefit both public and private HEIs. The strong development of private HE in Lebanon "*has been shaped primarily by a logic of confessional and linguistic differentiation*" (Melonio and Mezouaghi, 2010), which fits the specific historical, social, and economic situation of the country. This results in a dual structure system with a large and highly politicized public university mostly financed by the state on the one hand, and on the other, a series of private HEIs financed by a combination of (i) tuition fees, (ii) donations (religious, corporate, philanthropy), (iii) public funding, (iv) international cooperation grants, and (v) bank loans. Public funding to private HEIs is justified as a means to extend access to HE. Furthermore, it is complemented by grants, scholarships, and student loan programs run by the universities directly.

Source: Melonio and Mezouaghi 2010.

3.1.1.1 Public funding of teaching and operational costs of Higher Education Institutions

There are four main types of allocation mechanisms for these expenses: (i) negotiated or *ad hoc* budgets whereby a specific amount of public money is allocated to an institution (with or without prior negotiation); (ii) categorical or earmarked funds whereby governments specifically target one or various institution(s) based on predetermined criteria; (iii) funding formulae whereby financial allocations are based on a standardized formula composed of a weighting of criteria, such as number of staff and/or students, anticipated costs per students, etc.; and (iv) performance-based funding.

⁷ Some HEIs focus only on teaching or on research while others do both.

⁸ See Melonio and Mezouaghi (2010).

⁹ In Qatar, most of the construction costs of private HEIs since 2003 have been covered by the Qatar Foundation. In the United Arab Emirates, the "co-investment" model dominates, i.e., symmetrical financial responsibilities are shared between the institution and the government. For a more detailed account of the specific developments in GCC countries, refer to Romani (2009).

(i) Negotiated or *ad hoc* budgets constitute the most traditional allocation mechanism and are the most widely used mechanism in MENA. They involve setting aside a specific amount of funding for a specific HEI. Direct negotiations between a government and a HEI, mostly based on past allocations, can take place to determine the resource allocation. Two main variants coexist: line item budgets and block grants. Line item budgets are a traditional and centralized way of defining how resources are spent. The budget is itemized into lines corresponding to specific expenses. HEIs are more or less restricted in their transfers from one line to another, depending on the system in place. While they present the advantage of clarity, line budgets allow only limited (if any) flexibility for HEIs. Block grants allow for more flexible management of public financing by the institution. The entire amount is at the institution's disposal, provided it complies with defined accountability rules and processes. In practice, most hurdles appear during the design and implementation of these accountability mechanisms; ensuring fairness and transparency appear particularly important.

(ii) Categorical or earmarked funds target specific needs of institutions (driven by regional demands), socio-economic needs, or specific government goals (e.g., related to infrastructure, or the use of ICT).

(iii) Funding formulae were designed to be able to weigh different types of factors as well as to present a more "objective" way of determining budget allocations. They represent a step forward from block grant allocations, as they identify more precisely how budgets are allocated. Formulae vary greatly from country to country; Salmi and Hauptman (2006) identified three main types:

- Input-based formulae. These are predetermined based on inputs such as the overall number of staff or students. While presenting some advantages, these formulae also have some drawbacks, in particular, the difficulty of determining the student number given the parallel existence of full- and part-time students. Furthermore, funding formulae need to be capped to a certain number of students to avoid providing incentives to institutions to "blindly" increase their enrollment figures. In the MENA region, Palestine introduced a funding formula based on student and staff numbers (see Kuhail, 2011).
- Costs per student. Formulae taking costs per student into account are now the most widespread around the globe. Most are based on past costs but the calculation of those costs can vary greatly from one country to the next. Governments can calculate costs based on: (i) actual expenses as reported by the institutions; (ii) a system-wide average; or (iii) normative costs. The latter is a composite of what costs "should be," determined through, e.g., a benchmarking of other systems, the calculation of a reference staff/student ratio, the level and/or field of studies (e.g., to be of quality, a medical course requires more infrastructure investments than does a philosophy course due to the need for a laboratory), etc. In the MENA region, Jordan has long considered the adoption of a hybrid funding formula based on student headcount and per-program student unit costs. However, the idea was abandoned due to political disagreements in the early 2000s, a period characterized by plummeting public resources and increasing student numbers.
- Performance-based formula components. Finally, formulae can include some elements based on the performance of a given institution or group of institutions to reward them based on pre-established criteria such as the overall number of graduates, or a low level of repeaters. Denmark, England, and the Netherlands have included this dimension into their formulae to make the system more competitive and to provide positive incentives to institutions. At the same time, such incentives need to be carefully designed to avoid unwanted side effects.

(iv) Performance-based funding (i.e., financing that focuses on outputs or even outcomes, such as the number of graduates, results of graduates, or number of students integrated into

the labor market) has recently emerged as an alternative way to provide public finances to HE. These mechanisms present two main advantages: (i) a focus on results, leading to more accountability and possible efficiency gains; and (ii) the development of a competitive environment and thereby the promotion of a culture of innovation and savings. Two types are discussed here:

- Performance contracts. “... governments enter into regulatory agreements with institutions to set mutual performance-based objectives” (Salmi and Hauptman, 2006). This modality is similar to the negotiated budgets mentioned above, with one major difference: the contract between a government (or its representative) and the institution(s) includes provisions related to results. Various North American and Western European countries are allocating part of their public resources through performance contracts. In the MENA region, Morocco and Tunisia have already introduced them (see box 3.2).

Box 3.2 The introduction of performance contracts in Morocco and Tunisia in 2009

In Morocco, in the framework of the HE reform process initiated in 2000, and of the “Emergency Program 2009-2012,” the government initiated performance contracts with public universities in 2009. In exchange for a system-wide envelope of about EUR 1.2 billion, 2,400 new positions, and the adoption of supporting legislative acts, universities committed themselves to achieve specific negotiated targets in six domains. In parallel with this move towards greater university autonomy, the government also worked on various reforms to reinforce accountability (e.g., the creation of an evaluation agency and the strengthening of ICT governance tools). While the evaluation of these contracts will shed more light on their direct “efficiency impact,” one objective has already been met: the focus has progressively shifted away from inputs towards outputs and outcomes.

Also in 2009, Tunisia started to introduce a similar instrument. After a first round of methodological explanations, public universities were invited to submit “institutional projects” which were discussed with the government and which led to the establishment of performance contracts. In line with the specificities of Tunisian public HE, this was followed by a second step: the signing of similar contracts between the universities and their faculties, institutes, schools, and other entities. As in Morocco, a particular effort was made to also strengthen monitoring and evaluation capacities. Nonetheless, anecdotal evidence suggests that in their current state, performance contracts could have simply been another instrument to channel the same funds to the same institutions. As the entire process is still very recent (the results of the 2011 mid-term external evaluation have not yet been published), and as the effects of the Jasmine revolution are likely to bring about further reforms to the Tunisian HE system, it is too early to perform a thorough cost-benefit analysis.

Source: Based on Koukhi (2009) and Debbarh and Bennouna (2009), as well as on anecdotal evidence gathered by the author

- Competitive Funds. These are “support peer-reviewed proposals designed to achieve institutional improvement or national policy objectives” (Salmi and Hauptman, 2006). Use of these funds involves a competition between different HEIs or entities within institutions (facilities, centers, etc.) based on predefined criteria for award of a specific sum of money. Criteria and amounts vary widely. An essential condition for the establishment of competitive funds is: “the practice of transparency and fair play through the establishment of clear criteria and procedures and the creation of an independent monitoring committee” (Salmi and Hauptman, 2006). Many countries have set up such funds to channel part of their HE budget. In the MENA region, through World Bank-supported projects, Egypt, Jordan, Palestine, and Tunisia, have experimented with, and set

up, competitive funds (refer to box 3.3 for an overview of lessons learned, and to box 3.7 for more details about competitive funds in MENA).

**Box 3.3 Lessons learned from the implementation of competitive funds in
Egypt, Jordan, Palestine, and Tunisia**

The governments of Egypt, Jordan, Palestine, and Tunisia have all experimented with competitive funds in the framework of projects supported by the World Bank. Different formats and methodologies have led to different results. The main lessons learned are to:

Take time to think through the project design: (i) make a distinction for each level and type of funding; (ii) define the programs' objectives, criteria, and processes clearly; and (iii) ensure a sufficient amount of incentives for stakeholders to participate in the competition.

Ensure transparent implementation and adequate management capacities: (i) ensure a rigorous selection process with fair and transparent criteria; (ii) organize and manage the fund in line with its importance, complexity, and past experiences with such an instrument; (iii) ensure neutral, credible, and reliable reviews of proposals; and (iv) set up simple implementation requirements ensuring accountability and reliability.

Emphasize the importance of regular monitoring and evaluation to be able to adapt in the course of the process depending on arising changes and/or opportunities.

Source: See box 3.7 for a detailed description of sources.

The transition from traditional to performance-based funding might encounter strong resistance both within and outside any given HE system. A recent study conducted in the U.S. (Dougherty et al, 2011) highlights a series of lessons learned from both design and operation of such a mechanism in eight states (see table 3.1), six of which have put in place a performance-based allocation mechanism for HE funding. While these might not all be directly relevant to countries in the MENA region, they nonetheless provide an overview of key points to consider when planning and implementing such a reform.

Table 3.1 Lessons for implementing and sustaining performance-based funding in eight U.S. states

Step	Lessons Learned
Successfully enacting performance-based funding	<ul style="list-style-type: none"> • <i>Secure support from HEIs by addressing their fears</i> that performance funding provides an excuse to keep down regular HE funding, undercuts the autonomy of HEIs, and does not sufficiently recognize different institutional missions. • <i>Secure wider and deeper support from the business community</i>, given that business is typically a very influential player in U.S. state politics. Dougherty et al recognize that the mobilization of business also carries dangers. • <i>Reach out to equity-oriented groups</i> that are motivated primarily by a commitment to educational quality, particularly for underserved students, rather than an interest in government efficiency.
Preventing the demise of performance-based funding systems	<ul style="list-style-type: none"> • <i>Insulate performance funding from fluctuations in the source’s revenue cycle</i> by including performance funding as part of the basic funding formula for HE so that the system does not stand out separately and look “ripe for cutting.” • <i>Retain the support of HE</i> by wide and deep consultations with HEIs on the design, both at the beginning and when the system evolves over time. • <i>Cultivate other sources of support</i> by continuous outreach to various stakeholders. • <i>Help performance funding evolve effectively</i> by ensuring a partial insulation from external and internal demands so that funding levels and performance indicators do not change suddenly and erratically, thereby interfering with HEIs’ efforts to plan effectively. At the same time, Dougherty et al note that the review and revision process needs to be designed in a way that allows performance funding systems to change enough to keep demands for change from building up to such a point that they lead to demands to eliminate or radically change the system.

Source: Author’s compilation, based on Dougherty et al 2011.

3.1.2 Financing demand for Higher Education: indirect funding of institutions through students/households

In addition to financing HE supply, most governments have also been involved, to various degrees, in financing its demand. In other words, public funds have been made available to support the studies of selected individuals by channeling the amounts through the (prospective) students and/or their families. Depending on the design of the allocation mechanism, money can go directly to the (prospective) students and/or their families to cover predetermined costs, or through them to the HEIs. In the latter case, (prospective) students and/or their families act as intermediaries whose choices will determine the budget of the HEI. This mechanism stimulates HEI competition. Salmi and Hauptman (2006) list five types of demand-side allocation mechanisms: (i) “Demand-side” vouchers; (ii) government grants and scholarships; (iii) tax benefits; (iv) student loans; and (v) part-grant/part-loan mechanisms. The first three are discussed here; student loans are discussed at length in chapter 4.

3.1.2.1 “Demand-side” vouchers

The concept of a voucher is relatively straightforward: an individual or his family receives a coupon from the government providing him/her with a sum of money to be used for a predefined purpose. Vouchers have been widely used to provide people with a range of services, such as food or housing. In the education sector, they have thus far largely remained narrowly focused on basic education; only a few countries have implemented them for HE. “Demand-side” vouchers can be restricted to only cover operating expenses of HEIs. The main reasoning behind a demand-side initiative is that students will choose the institution and program that seem most appealing. Thereby, vouchers create competition between HE

providers which should lead to greater efficiency of the system as a whole. One such example is the introduction of a voucher system in Tunisia for attendance of private Vocational Education and Training (VET) (see box 3.4).

Box 3.4 The Tunisian experience with training vouchers

In 2008, the Tunisian Government put in place the system of "Chèques Formation" (training voucher) for private VET. Following an application process, the vouchers are given to recipients who can choose the training course they want to attend (specialty, location, and training structure), provided the VET school is duly accredited. The funding of the measure is lumped with other professional training sources coming from: (i) professional training taxes paid by companies; (ii) direct contributions by the state; and (iii) direct contributions by companies. The program benefited seven companies in 2008 and about forty in 2009-2010. Despite this growth, the program apparently struggles with direct competition from the services provided by the Government's Agence Tunisienne de la Formation Professionnelle (Tunisian Agency for Professional Training).

Source: Toumi 2009.

When a government decides to create a voucher system, it must make a series of policy choices that need to be carefully weighed, as they will undoubtedly affect the demand for and supply of HE. Some of the questions that emerge are: What type of costs does the voucher cover? What percentage of total costs? Who is eligible? What responsibilities does the voucher-holder have? Are vouchers renewable, time-bound, or open-ended until graduation? Further studies and lessons learned from the recent attempts to set up "demand-side" vouchers will likely help provide answers to these fundamental questions in the context of their respective societies and systems.

3.1.2.2 Government grants and scholarships

Both grants and scholarships can be administered directly or indirectly (via a dedicated agency or even HEIs themselves) by the government. In essence, if designed well (based on transparent and fair criteria), they should increase both the quality and the equity of HE systems by encouraging, respectively, talented and disadvantaged students. Some models include a combination of both (need and merit-based). Here again, implementation modalities vary greatly (e.g., types of costs covered, aid volume and duration, conditionality, etc.).

In the last decade, to respond to growing demands due to demographic pressures and the worldwide race to HE, countries across the MENA region have reported increased numbers of scholarship programs. For instance, about 35 percent of all Tunisian students receive a government scholarship; about 31 percent do in Morocco. Furthermore, since 2001, Kuwait, Oman, and Saudi Arabia have created new or strengthened scholarship programs¹⁰ (box 3.5 presents the program run by the Private Universities Council in Kuwait).

¹⁰ For more details, refer to UNESCO (2009).

Box 3.5 Kuwait's Private Universities Council Scholarship Program

Kuwait University, the country's only public HEI, has faced a continuous rise in application numbers over the last decade. Having reached its capacity limit and being concerned with the quality of study conditions, the University raised its minimum admission grade requirements in 2001 to discourage additional student intake. As a consequence, a larger proportion of the student-age population was left out of public HE.

This fact, combined with the government's goal to achieve social justice for Kuwaitis, and with a legislative reform allowing the establishment of private HEIs (Royal Decree 56/2000) in 1999 and their subsequent development, led to the launch of a scholarship program designed to facilitate student access to private HE in 2006. In addition to the government's contribution, private universities are paying 20 percent of the tuition fees, are increasing student intake, and are enhancing further construction works to continue to increase their capacity. The quality of their teaching is closely monitored by the Private Universities Council, an administrative body responsible for evaluation and accreditation. By 2009, the program had attracted 5,761 applications and granted 4,595 scholarships (a 78 percent admittance rate). From the government's perspective, *"The scholarship program allows (...) to save 50 percent each year on the alternative costs of funding additional governmental educational institutions or foreign scholarships."*

Source: Al-Atiqi et al 2010.

3.1.2.3 Tax benefits

Another instrument governments can use to fund the demand for HE is tax collection. Lately, this has been one of the areas with the most innovations. The tax instrument can be used in at least two ways to support individuals and their families in their pursuit of HE studies: as a credit, i.e., receiving a tax credit; or as a debit, i.e., by agreeing to pay higher taxes for a specific amount of time following graduation and then securing a formal work position. Different countries have used these modalities to cover different costs: Salmi and Hauptman (2006) differentiate between benefits to cover tuition fees and benefits to provide increased family allowances. However, such instruments can only be put in place in countries with efficient and reliable tax collection systems.

3.2 How allocation mechanisms can be used to meet access, equity, quality, and relevance goals

3.2.1 Overview

Table 3.2 presents a general overview of the possible effects of each allocation mechanism on the main policy objectives of access, equity, quality, and relevance. The table can be used as a notional decision-making tool, but the final "allocation mix" will be based on a country's experience, history, and appetite for reform. While some mechanisms might seem on paper to have more positive impacts than others, they might not be acceptable in a given context for a number of reasons.

Table 3.2 Funding allocation mechanisms and policy objectives

Type of allocation mechanism	Increase Access	Improve Equity	Improve Quality and Relevance
I. Financing HE supply: public funding of institutions			
1. Funding instructions, operations and investment			
1.1. Negotiated budgets	-	-	
1.2. Categorical earmarked	-	+/-	+
1.3. Formula-funding			
i) Input-based			-
ii) Cost-based			
- Actual costs / student			-
- Average costs / student			
- Normative costs / student			+
iii) Priority-based		+	++
iv) Performance components			+
1.4. Performance-based funding			
i) Performance set-asides			
ii) Performance contracts			+
iii) Competitive funds			++
iv) Payment for results		+	+
<hr/>			
2. Public funding of university-based research			
2.1. Funded with instruction			-
2.2. Block grants			+
2.3. Projects peer-reviewed			+
II. Financing demand for HE: funding of institutions through students/households			
1. Demand side vouchers	+	+/-	
<hr/>			
2. Grants scholarships and loans			
2.1. Administered by the institutions			
2.2. Means-tested	+	+	
2.3. Merit-based		-	+
2.4. Need- and merit-based	+	+	+
<hr/>			
3. Tax benefits			
3.1. Tuition fee offsets	+	-	-
3.2. Family allowances	+	+/-	

Source: Author's modification, based on Salmi and Hauptman 2006.

Note: + = Positive impact; - = Negative impact; +/- = Depends on specific program design.

3.2.2 Increasing access through more efficient use of existing resources

As mentioned earlier, a sustainable funding strategy requires a combination of additional resources (whether through cost-sharing mechanisms, private provision, or philanthropic resources) and more effective use of existing funds. Table 3.2 only considers allocation mechanisms, without looking at additional sources of funds. It can be seen that all mechanisms with positive impacts on access are demand-driven: e.g., vouchers, mean-tested grants, need- and merit-based scholarships and loans, tuition fee offsets, and family allowances. The impacts of these mechanisms are described further:

- i. Means-tested grants are designed to increase HE access of the lower socio-economic categories of the population, thus also favoring equity. The Tunisian Government is considering a scholarship for VET in public institutions in parallel to the voucher described above. In Lebanon, 10 to 25 percent of students receive scholarships and grants on socioeconomic criteria; as these are allocated by the universities themselves, the percentages vary from one HEI to the next (Melonio and Mezouaghi, 2010).

- ii. Need- and merit-based scholarships include elements that increase access and address equity.

For those two categories, clearly defined and communicated eligibility criteria and transparent and fair selection processes are the keys to successful implementation.

- iii. Tuition fee offsets are one way to put in place an indirect and deferred cost-sharing system. Yet these might favor better-off students at the expense of equity, given the limited availability of placements. In addition, they require setting up collection systems which might be costly in some countries. These issues are discussed at length in chapter 4.
- iv. Family allowances are another way to increase access, albeit in an even more indirect way, via sponsoring students' families. This measure can also have secondary effects. For example, it might further reinforce a family culture in which the education of the next generation is of central importance. The design and possible targeting will determine whether this instrument has a positive repercussion on equity as well.

Another way to increase access is to include the demand component in a funding formula or as one determinant of performance-based funding: HEIs would receive additional funding for additional intake. This simple statement naturally comes with a number of caveats if the mechanism is used on its own. First, the main constraint on governments is the limited availability of financial resources, thus it might seem unrealistic to increase (non-available) funding to stimulate increases in HEIs' student intake. Second, there is a strong likelihood that the increased funding per additional student would be lower than the actual "needed funding" per additional student. This could seriously undermine education quality, and in a region like MENA, where educational quality is already being challenged, could further exacerbate the situation. Nonetheless, it could prove workable: (i) in oil-producing countries, for example, where additional funding could be made available; or (ii) if combined with other compensating and/or limiting measures and adaptations to the "allocation mix."

3.2.3 Improving equity through adequate targeting and similar measures

In addition to grants and scholarships, categorical/earmarked funds, priority-based funding formulae, and "payments for results" can be used to target funding to the poorest or most deserving students. In MENA, with the support of the World Bank, Palestine is working on introduction of a mix of instruments to (a) facilitate HE access (b) in priority fields of study (c) to the less well-off. The goals are to streamline funding while maximizing cost efficiency, and at the same time diminish inequalities in the HE system (see box 3.6). Jordan is also currently contemplating introduction of a similar formula.

3.2.4 Boosting quality and relevance by linking funding to performance

The main way to enhance HE quality through the "allocation mix" is to link public funding to performance, both on the demand and supply sides. Negotiated budgets and funding formulas are considered to be weak mechanisms for improving quality, as they are based on static budget allocations with no reference made to results. One critical element that goes hand in hand with quality is relevance of HE. This is normally measured by the extent to which graduates meet the demands of the labor market. On the demand side, merit-based scholarships provide incentives for the most talented to participate and thereby contribute to the quality of HE; these can be linked to needs to minimize inequality. Demand-side funding

can also be prioritized to specific areas of study. On the supply side, a range of different instruments can lead to a stronger focus on education quality and relevance, e.g.:

- i. Priority-based funding and output-based formulae can be designed to favor "good achievers" based on clear and fair criteria.
- ii. All performance-based funding, due to its quality and competition focus (e.g., performance set-asides, performance based contracts, payments for results, and competitive funds) has great potential to improve the quality and relevance of education outcomes. It creates incentives for improvement and can be used to promote specific policy goals. It has been used in Egypt, Jordan, Palestine, and Tunisia with varying degrees of success.

In Egypt, the objective of the Competitive Fund initiated in 1991¹¹ was to improve: (i) the quality and occupational relevance of engineering education in Egyptian universities; and (ii) the quality of secondary and post-secondary technical education, by supporting the creation of Industrial Education Colleges to meet the demand for better prepared and qualified technical teachers. Through the fund, 159 laboratories were established over six rounds of proposals. It *"proved to be an effective mechanism to bring quality improvements to universities. The competitive element spurred Universities to come-up with the best possible proposal. The participatory process of peer reviews also led to a common practice of sharing lessons from experience among faculty members."*¹² The fund was deemed successful and led to a continuation of the reform process in the framework of the Higher Education Enhancement Project (HEEP)¹³ and to the establishment by the government of a broader competitive fund using government resources.

In West Bank and Gaza, the Quality Improvement Fund was established in 2005 (Lemaitre, 2008), with the primary purpose of improving the quality and relevance in HE, and with the objective of providing support to Palestinian tertiary education institutions and programs to improve their: (i) relevance to the job market and economic development; (ii) international competitiveness; and (iii) capacity to develop income generating programs. Since its inception, forty-five projects have been funded in three rounds. An external evaluation noted that the selection process has followed full transparency, as the decisions have all been based on external peer reviewing, which are the basis for Board decisions. Based on the diversity and innovation of the proposals approved, it is evident that they are all aligned with improving the quality and relevance of tertiary education in Palestine. A spillover effect of grant implementation has been the capacity building in project management, procurement, and financial management and reporting. It is evident that the process of preparing project proposals has resulted in capacity building in project preparation, and for several institutions, this capacity has resulted in generating additional revenues for the institutions.

In Jordan, the Higher Education Development Fund was initiated in 1998 (Hatakenaka and Thompson, 2005). The objectives were to: (i) support improvements in the quality and relevance of HE; and (ii) align HE with the needs of a market driven economy. Through the fund, thirty-three grants upgrading or creating new undergraduate and graduate programs, as well as seven entrepreneurial projects with private sector industries, were funded over three rounds (only the last was competitive) (English, 2007). This was the least successful

¹¹ An Implementation Completion and Results Report can be found at: <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P005140>.

¹² Abstract from the Implementation Completion and Results Report mentioned previously.

¹³ More information can be found at <http://www.heep.edu.eg/>.

experience, as the idea of competing for funds was not fully accepted, and thus led to less lasting outcomes.

In Tunisia, the Quality Support Program was established in 2006 (Jaramillo, 2009) with the objective to set up a new mechanism to transfer grants to HEIs. The Programme d'Appui à la Qualité (PAQ) was part of a larger program supported by the World Bank, as part of the Higher Education Reform Support II. It had two components: (i) PAQ-QE for the Quality of Teaching and Programs; and (ii) PAC-G for the Management Capacity of Universities. It has awarded forty-one grants in three rounds. *“It has helped to create greater accountability in the use of public resources, facilitated the implementation of contract-based budget allocation, contributed to the development of skills in the field of university management, and stimulated a quality culture of assessment. (...) When objectives are clear and specific enough, universities (...) are able to develop interesting and innovative projects that are likely to develop the higher education system in the desired direction”* (World Bank, 2009).

3.3 Building a comprehensive strategy

Developing a comprehensive funding strategy requires a mix of demand- and supply-side mechanisms and clear linkages to priority goals for each mechanism used. One critical question is to what extent public funds should be allocated on a competitive basis, or what percentage of the budget should be assigned through performance-based contracts. There is no “one size fits all” solution. Designing a comprehensive strategy depends not only on the priorities of a given HE system, but also on the institutional capacity to implement and monitor it. In addition to the above, political and cultural issues are critical, especially when cost-sharing mechanisms are involved.

In 2002, the Palestinian Authority developed a comprehensive strategy¹⁴ that attempts to combine a series of elements to build a sustainable financing strategy geared to improve the quality, relevance, and equity of its HE system. The overall objectives of the Strategic Framework were to make the HE system more effective, accessible to students from low income households, more relevant to Palestinian economic and development needs, and more sustainable. Progressively, the PA is adopting a set of comprehensive instruments to reform its HE financing, while also improving the governance of its HE system. Some of the elements of the strategy are described in box 3.6 as they can serve as an example for other countries in the region.

¹⁴ See Alami (2011) and Kuhail (2011).

Box 3.6 Palestinian Strategic Framework for Funding Higher Education

- Target public funds to programs identified as having high priority.
- Incorporate demand-side financing: a Student Loan Revolving Fund was created in 2001 to increase equity (most HEIs rely on tuition fees). Students are selected based on both achievement and income. The Fund disburses loans, grants (as incentives) and scholarships (for students in priority areas). Moreover, various other scholarship programs have been implemented by the PA – on its own budget, and with the support of donors such as the European Union, UNESCO, private entrepreneurs, and non-profit organizations such as AMIDEAST.
- Promote quality through competitive funding of selected projects Quality Improvement Fund (QIF) as described above.
- Establish an autonomous Accreditation and Quality Assurance Commission; in Palestine, this was established in 2002 to ensure common minimum quality requirements across Palestinian HE.
- Improve the management of the system: a Tertiary Management Information System (TEMIS), linking HEIs and the Ministry of Education and Higher Education was set up to increase steering capacity and overall HEI accountability.
- Promote research through competitive funding.
- Promote vocational and technical education enrollments as a share of total higher education enrollments.
- Base funding formula on students and staff numbers or project-based funding for research; these are currently under consideration by the PA to allocate funds directly to institutions.

3.3.1 Public funding of research

This chapter has focused on funding allocations for teaching and operating costs of universities. One other critical element of HE systems is funding research, particularly in medium to high income level economies. In some MENA countries, the education and training functions are separated from the research function. For a number of reasons often linked to arguments about market imperfection and externalities,¹⁵ governments have been financing R&D through their innovation policies.¹⁶ HEIs are key players in this domain for two main reasons: (i) they train tomorrow's scientists; and (ii) they themselves perform basic and/or applied research. As noted earlier, the level of investment in R&D in the region is quite low. Although the topic is of critical concern for improving HE outcomes, and key to developing innovation systems, its complexity merits detailed analysis that goes beyond the scope of this document. Nevertheless, box 3.7 lists some of the most commonly used mechanisms to support R&D.

¹⁵ An overview of the justifications for public innovation policy can be found in Takalo (2009).

¹⁶ For an overview of the principles of innovation policies and programs in various policy contexts, refer to World Bank (2010).

Box 3.7 Public funding of research and development

- Joint funding of instruction and research is the most traditional allocation mechanism, and the easiest to implement. Institutions can use the received amounts to pursue two objectives at once: education and experimentation.
- Research project funding favors specific projects or programs of research. There are different variants of this allocation mechanism; i.e., they can be more or less competitive, operate with or without *ex ante* peer reviewing processes, and exist with or without matching grants from the institution and/or the private sector, directly by governments or through dedicated agencies. From a policymaker's perspective, this allocation mechanism provides for increased flexibility in terms of research orientation. If designed well, it can also enhance the qualitative aspects of research through transparency and competition in the MENA region. Since 2002, Palestine has engaged in a reform process towards project-based research funding, with a peer review process and a focus on areas of national priority.
- Block grant funding for research is based on predetermined criteria, and institutions receive a lump sum to conduct research. From the HEI's perspective, this allows full flexibility in setting and pursuing research objectives. At the same time, if governments only finance the institutions that serve their own agenda, the innovation policy might be narrow and politically driven. The "blue skies" approach in England is a Results Assessment Exercise (RAE) conducted in universities on a regular basis. Based on their achievements, institutions are allocated a sum of money to finance their research efforts.
- Centers of excellence are a selective financing approach that is gaining traction in many countries, as witnessed by ongoing projects and reforms around the globe. The goal is to develop centers of excellence in particular subjects and/or areas and to designate funding for a specific period of time. The Millennium Science Initiative, funded/managed by the World Bank and the Science Initiative Group, aims to build capacity in science and technology through the targeted financing of centers of excellence in developing countries. Started in 1998 in Chile, the initiative now covers full-scale operations in Chile, Brazil, Mexico, and Uganda, and is progressively extending its presence in various Sub-Saharan African countries. China has also been an active proponent of centers of excellence, with a series of projects involving both secondary and HEIs. France and Germany also have invested heavily in centers of academic excellence, combining a series of allocation mechanisms (competitive funding, grants, etc.) with a targeted approach, both in terms of geographical area and subjects. It is worth noting that these projects will also likely lead to a consolidation of the public HE sector in both countries, a side effect desired by the governments to reap economies of scale.

Source: Salmi and Hauptman, 2006

3.4 Conclusions and lessons learned

This chapter has provided a review of different funding allocation mechanisms and demonstrated how they are being used in MENA countries. Some funding tools are better suited to meet access goals, while others are more appropriate for improving quality and relevance. As discussed in chapter 2, most countries in MENA need to develop

comprehensive strategies that include a suite of instruments to allocate funds combining both supply- and demand-side mechanisms.

In general, the following conclusions can be made:

- Demand-driven tools are efficient mechanisms to increase HE access.
- Targeted funding is the best mechanism to maximize equity in the HE system.
- Linking funding (of institutions and students) to performance can boost quality.
- Ultimately, the overall "allocation mix," with its suitability to a given context, and its concurrent satisfaction of the priority goals, matters most.

In the specific context of the MENA region, HEIs themselves have already taken short term measures to minimize budgets, e.g., by replacing qualified full-time faculty with part-time faculty, increasing the size of classes, or simply delaying investment, as well as by making necessary infrastructure and material refurbishments. Such measures have temporarily eased the financing burden but will likely represent larger expenses later on as further degradation of study conditions, and possibly education quality, occurs.

One critical lesson to be learned from introducing reforms is that it is essential to address the political and cultural context from the start. Consultation, consensus building, and, above all, transparent information sharing are key elements of success. Access, quality, relevance, and equity need to be emphasized in a comprehensive, holistic approach. Moreover, before enacting new legislation or changing processes, thorough and adequate analysis is needed to inform the difficult policy choices. In particular, cost-benefit analyses taking into account both quantitative and qualitative elements might indicate budgetary implications and facilitate the establishment of new "allocation mixes." The current situation in the region is prone to reform. This unique momentum can be used to push forward an agenda that enhances the accountability of public spending in general, and of HE in particular, issues of utmost importance to the next generation of MENA citizens.

Chapter 4: Cost-sharing in tertiary education: why, when, and how?

Countries in the MENA region are not alone in facing public budgetary constraints. This global reality has led to an increase in private financing, or cost-sharing, of HE. Johnstone and Marcucci (2010) assert that “*cost-sharing is both a statement of fact—i.e., that the costs of HE are shared by governments (or taxpayers), parents, students, and philanthropists—and also a term designating a worldwide policy shift of the costs of instruction as well as the costs of student living from what was at one time, in many countries, a predominant or even exclusive reliance on governments to being shared by governments, parents (or extended families) and students*” (Johnstone and Marcucci, 2010).

As discussed in chapter 2, the rapid expansion of tertiary education in MENA has led to increases in public costs that are difficult for states (with perhaps the exception of oil-rich countries) to bear, considering the usually limited potential tax base.

4.1 Policy options for Higher Education financing in countries with a limited fiscal base

Confronted with rapidly rising numbers of students, governments of countries with limited fiscal revenue need to decide between difficult policy options as outlined below:

- *Change the growth dynamics of the student population.* An education system is generally assumed to have a series of fixed parameters, such as the transition rate from one academic year to the next, but some of the characteristics of a system may in fact be changed over time if necessary. However, few countries in the MENA region are likely to limit the quantitative development of their HE systems, since most have decided to invest extensively in human capital as a core element of their growth strategy. Student selection at the entry of universities is often considered to be very difficult politically, even though the “laissez-faire” option leads to very high dropout rates in the first year of HE, an unsatisfactory outcome.
- *Reduce the public expense per student while keeping the structure of the system unchanged.* This option typically leads to higher class sizes, fewer courses taught per student, lower levels of teacher training, recruitment of temporary teachers or “contract teachers,” underinvestment in teaching materials, and consequently, a lower level of education quality and potentially higher unemployment for graduates. This “low-cost” scenario is, despite its undesirability, quite common.
- *Commit more public resources or raise additional taxes to keep the real expense per student constant.* The massification of tertiary education allows for some economies of scale, but a massive surge in the number of students will require a rapid growth in public resources to maintain the quality of education and the skills of students. Few countries may be able to afford the projected 15 percent education budget increases per year over a ten year period. The few MENA countries that are resource-rich may decide to invest some of their wealth in human capital, a choice that may prove both economically efficient and socially fair if investment in education has a sufficient long-term return. However, countries with a limited tax base cannot afford to neglect other public investments, so may not be able to follow. The large share of the informal sector in the MENA region is an obstacle to rapid increases in fiscal revenues, because taxes cannot be levied on informal businesses.

- *Increase public resources through augmented financial participation of students and their families.* In a country where the tax base is limited or when the government is concerned with equity issues and does not want all taxpayers to pay for HE, having the beneficiaries (i.e., students) contribute makes sense. In this chapter, the tools for such cost-sharing strategies are described.
- *Foster development of the private supply of HE,* which will ultimately lead to a dual system that is less costly for a government than a fully public system without tuition fees or cost-sharing. This option is discussed in chapter 5.
- *Develop incentives to increase private donations or to build private endowments for universities.* This option is discussed in chapter 6.

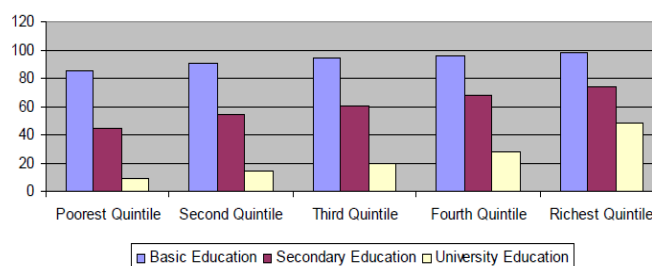
Cost-sharing is an option to prevent the development of a low-cost education system, coupled with the development of private higher education (PHE) supply. There are a number of solutions and tools to share the cost of HE. Different tools lead to different eventual costs for the government, different opportunities for students depending on their social status, and different political constraints. Raising tuition fees, at first glance the simplest option, has major drawbacks both socially (because disadvantaged students might be discouraged to further their studies) and politically (because even students who have the means to pay for their studies may dislike the upfront payment of tuition, with uncertain eventual returns to their education).

Governments can compensate for the inequity issues associated with tuition fees by setting up student aid programs in the form of grants and loans. The development of such financial products requires some level of state intervention and implies public costs, either to offer subsidized interest rates or to pay for the deferment of repayments. However, the cost of such a scheme, when tuition fees are set up, is always less than that of an entirely free public system. In this chapter, different scenarios and schemes are discussed.

Private financing of a public service is not generally associated with equity, however HE is a special kind of public service, since it is not universal and benefits only those who are accepted in a university. There is obviously a strong social selection bias among pupils who further study in universities. The supporting evidence that this social bias does exist, even in countries where HE is free, such as Tunisia and Egypt, was presented in chapter 2. Students generally come from privileged, or at least upper middle class, social backgrounds while high school students of disadvantaged families have lower access to HE. A public service financed by the whole population and benefiting only a minority or a selected majority is one of the very few examples of a financially regressive public service. Even countries with broad access to tertiary education may encounter regressive transfers due to the insufficiently progressive financing of HE.¹⁷ In Egypt for example, the enrollment rate in HE is almost five times higher for students from the richest quintile compared to those in the poorest quintile (see figure 4.1).

¹⁷ In the case of France, for example, Allègre, Melonio and Timbeau (2010) tried to measure the transfers from poor to rich households through the HE system. Their main conclusion is that it requires a progressive taxation structure to help offset the effects of social selection into HE: <http://www.ofce.sciences-po.fr/pdf/dtravail/WP2010-06.pdf>. In a life-cycle perspective, university graduates more than repay the cost of their education through higher taxes, and therefore the public financing of HE is not necessarily regressive. However, it is difficult to extrapolate results found in France, where access to HE is common, to countries where it is more scarce.

Figure 4.1 Enrollment rates in Egypt by income quintile and education level (2004-2005)



Source: Household Survey Data 2004-2005; World Bank calculation.

Social inequalities commonly mirror regional disparities, both in terms of unequal enrollment and the nature of the HE supply. In Tunisia, enrollment outside of the major cities is not insignificant, but the trainings offered are mostly short term, which means that the public transfers towards these regions or governorates are smaller than in the main cities (see table 4.1).

Table 4.1 Regional Distribution of Programs in Tunisia

Region of origin	Programs			Total
	2-yr programs	4-yr programs	5 yr+	
Grand Tunis	16.8	26.1	33.0	23.3
North East	10.3	11.7	9.8	11.1
Sahel	14.1	10.1	6.1	11.2
Sfax	12.5	13.8	13.1	13.3
Centre	14.2	10.1	6.3	11.24
South	22.6	15.5	14.6	17.9
Abroad	2.4	1.9	2.2	2.1

Source: Jaramillo et al. 2010.

In summary, a fully publicly funded HE system is not necessarily equitable, especially when access to HE is socially selective or unequally distributed on a geographic or income basis. Since education is generally assumed to have both private and social returns, an education system fully paid by students might prove both inequitable and inefficient, but cost-sharing, with varying proportions of public and private funding according to the context, has economic justifications. The challenge in developing countries is that private financial systems are less developed than in OECD countries, so that credit constraints might prove binding at the individual level. Some country case studies have shown that credit constraints for education are significant in some developing countries, especially among poor households.¹⁸

4.2 Tools for cost-sharing: tuition fees

Registration and tuition fees are one tool to finance the public cost of HE. The level of fees varies greatly across the world. While most Commonwealth countries and the U.S. have a long tradition of moderate to high tuition fees, continental Europe, countries which belonged to the Soviet Union and other formerly socialist countries, and former French, Spanish, and Portuguese colonies or protectorates usually charge no or low tuition fees to students in public universities. There are, of course, numerous exceptions, but around the Mediterranean, access to most public universities is either free or inexpensive. Indeed, Algeria, Egypt, Lebanon, Morocco, and Tunisia all have no or low registration fees, apart from a few “parallel

¹⁸ See Gurgand, Lorenceau and Melonio (2011) for a literature review and a measure of the credit constraint in South Africa identified through a quasi-experimental design.

programs.” (Foreign students usually must cover the cost of their education, however, even in public universities.) In Egypt, only some fields of study require payment of significant fees. In Morocco, while the government calls for a “diversification of resources” in its national education charter, fees remain low.

In the region, only the Jordan and the Palestinian Authority have adopted a different strategy, and rely significantly on private contributions to finance public education. In the West Bank and Gaza, approximately 60 percent of universities’ costs are covered by tuition fees, close to the 66 percent recorded in Jordan. In Jordan, tuition fees in public universities vary between USD \$1,500 and \$3,000 per year, i.e., 45 to 90 percent of GDP per capita. These fees were progressively raised over the last ten years, while the government reduced public expenses. The upfront payment of tuition fees is unpopular among students and their families, not surprisingly. Most universities divide the annual fees into several installments so as to limit the initial upfront payment. This strategy may help reduce liquidity constraints of disadvantaged students by smoothing the payment and limiting immediate out-of-pocket costs. In emerging countries, many households do not have enough savings to pay 30 percent of their annual income (the average cost of HE) at once. In Jordan, scholarships and subsidized, interest-free loan schemes were established to mitigate these issues.

In some other emerging countries, bursaries are also progressive, with 25, 50, or 75 percent of a full bursary granted to students of different social backgrounds. Bursaries can be matched with the two systems described above, even though the number of potential brackets in a bursary scheme is generally less than that of an income tax system.

Table 4.2 Fees, taxes, and bursaries can be fiscally neutral

	Low income households	Lower MI households	Upper MI households	High income households
	1: fees paid / 2: taxes paid / 3: bursary received			
Option 1: Means-based tuition fees	0 / 0 / 0	500 / 0 / 0	1,000 / 0 / 0	1,500 / 0 / 0
Option 2: Uniform tuition fees + variable bursaries	1,500 / 0 / 1,500	1,500 / 0 / 1,000	1,500 / 0 / 500	1,500 / 0 / 0
Option 3: Uniform tuition fees + income tax + bursaries	500 / 0 / 500	500 / 0 / 0	500 / 500 / 0	500 / 1,000 / 0
Total cost for the household	0	500	1,000	1,500

Source: Author’s calculation.

Table 4.2 illustrates a notional example of the use of three instruments; the cost of HE is artificially set at 3,000 for a cohort of students (divided into income quartiles). In all situations, HE is free for low income households, costs 500 for lower-middle income households, 1,000 for upper-middle income households, and 2,000 for high income households. This example shows that different tuition fees systems can be financially identical, even though the measures used to implement them are radically different.

Option 1 (means-based tuition fees) requires universities to be able to identify the means of the student or his/her household, unless the tuition fees scale is set and implemented at the national level. Option 2 requires the same when the bursary is given by the university (it also may be a state bursary or a state voucher). The only difference between options 1 and 2 is that option 2 is easier to implement for universities when bursaries (or vouchers) are distributed at the national level, as is the case when financed by a large donor. The political economy of the implementation of tuition fees might be more suitable in option 2 at the national level, because a government bears the cost of higher fees but it also gets the benefits of a larger bursary or voucher system. In the MENA region, since tuition fees are low in public universities, these options are mostly found in private universities. In some universities (e.g.,

the Université Saint-Joseph in Beirut, and the American University in Cairo), the student social welfare office is well-staffed (fifteen people work in the “social service” office at Saint-Joseph, with 34 percent of students benefiting from at least one type of financial assistance). Both universities offer both merit-based and needs-based bursaries on a relatively large scale. In Egypt, most private universities offer fees reduction for students with the best marks at the final exam of high school (“Thanaweyya Amma”). However, the American University in Cairo is trying to use more needs-based bursaries and fewer merit-based scholarships, because merit-based bursaries are often awarded to relatively advantaged students, according to the university. In South Africa, the existence of relatively high tuition fees in public universities has led to the creation of a subsidized loan mechanism targeted towards poor households, in addition to the use of more classic systems of bursaries.

In option 3, which relies on the existence of a progressive income tax, the state needs to have a proper income tax system and to be able to verify the income of the individuals. In countries with a large share of the active population employed in the informal sector, usually less than half of the population has a regular pay slip and is effectively ineligible to pay direct income taxes. When an income tax is impossible to implement, other types of taxes may still be used, such as a consumption tax or a proportional tax. However, table 4.2 implicitly assumes that all households have equal access to HE. In reality, students from disadvantaged households are less likely to enroll in a university. If the tax system is universal but access to HE is socially biased (likely if the tax is a VAT, e.g.), then the risk of implicit transfers from poor to rich households is high.

In the examples above, bursaries are only designed to pay for tuition fees. However, in many countries, bursaries can also be granted in the absence of tuition fees, to cover the cost of living for needy students. Direct bursaries as well as partially subsidized meals or accommodation can be given to a significant proportion of students: almost one-third of the students in Tunisia receive a bursary, 26 percent benefit from the services of university restaurants, and 15 percent have a room in a university residence. Another way to share the cost of HE is therefore to target social help towards the most disadvantaged. Morocco, on the other hand, has reduced the cost of bursaries and other similar mechanisms by targeting the neediest students.

4.3 Student loans in theory and practice

A government might initially consider raising tuition fees as the easiest way to share the cost of HE. However, this solution presents two major theoretical drawbacks and one major practical difficulty. The practical difficulty arises from asking students or their families to bear the cost of a formerly free public service. The theoretical drawbacks are: (i) the existence of social returns to education; and (ii) the potential existence of credit constraints. If social returns to HE are greater than private returns, then privatizing the financing (not the supply) of HE could reduce the demand for HE to a sub-optimal level. Students would only further their studies as long as it is profitable for them, even though society might benefit from a better trained labor force. There is not much evidence, however, that social returns to education are strong in the MENA region,¹⁹ or superior to private returns.

The existence of potential credit constraints means that students from disadvantaged social backgrounds may not only be unable to pay for tuition fees with their savings, but they may also be prevented from borrowing the necessary money due to “imperfections” of credit markets, and students may therefore lose the numerous benefits of education. The standard framework in the theory of human capital and education returns (Mincer, 1958 and 1974) assumes that needy students can always borrow money to further their studies and therefore

¹⁹ As reviewed in chapter 2 of this report and in World Bank (2008).

will be able to continue to study as long as the returns to education are superior to its cost (including the opportunity cost). Box 4.1 details the successful experience of student loans for low income students in Colombia.

Box 4.1 Colombia's ACCES Student Loans Project

Background: Colombia's Institute for Credit and Technical Studies Abroad, ICETEX, is a government entity aimed at promoting HE access through student loans. In 2001, the Institute put in place a strategy to increase the number of aid recipients by 100,000 over a four year period.

Methodology: Colombian households were classified in six income categories. Performing students coming from the lowest three could apply for a loan to cover tuition, and sometimes even accommodation. Applications were graded according to the following eligibility system: 25 points based on the students' socio-economic level (only for the lowest two income categories); 90 points based on academic performance; up to 10 points for students registering for technical degrees; 10 points to prioritize first year students (who face comparatively more difficulties in obtaining a loan); and 15 points to prioritize programs validated by the Colombian Accreditation Commission.

Loan Conditions: Once past the eligibility stage, to obtain the loan, students in the lowest two household income categories needed to draft a simple I.O.U. (acknowledgment of debt) whereas students from the third category needed a financial guarantee. The loan itself bore a 12 percent interest rate – which included 6 percent to cover inflation, 3.5 percent for administrative costs, and 2.5 percent as a risk premium for non-repayment. After a grace period of one year, repayment took place over a period twice the period of study. Finally, monthly repayments were set at 16 percent of the individual's income.

Results: From 2001 to 2006, the number of student loan recipients from ICETEX jumped from 48,000 to 120,000 and increasingly went to the lowest two income categories: their share in ICETEX's portfolio increased from about 30.4 percent before to 67.8 percent after the introduction of ACCES. Finally, the average study dropout rate of ACCES beneficiaries was 8.5 percent, compared to 28.4 percent for non-beneficiaries.

Deferred fees are one way to limit credit constraints. In fact, deferred fees are very similar to student loans: in public universities, they are equivalent to public tuition fees with a zero-interest rate loan granted by the government; in private universities, they are identical to a student loan mechanism, where the student pays back the university after graduation. In table 4.3, several cost-sharing strategies and their implications for the government's budget are described. In this table, deferred fees and student loans are not distinguished, as the fact that a loan is "distributed" by a bank (through a subsidized refinancing) or the government itself does not change the eventual cost for the state, if costs associated with the loan are the same (i.e., distribution, repayment, and risk costs).

Most of the literature on credit constraints is based on U.S. data. Unfortunately, there is little scientific evidence relying on data collected in developing countries. Attanasio and Kaufmann (2009) recently studied this topic through the observation of subjectively expected wages at various schooling levels in Mexico. In the absence of credit constraints, schooling should increase with expected returns to education. If schooling demand is constrained by some binding level of debt, then this relationship no longer holds: some students stop studying even though they think they would benefit from it. The authors found that expected returns were correlated with actual schooling for the richer part of their sample, but not for the poorer, which seems to indicate that the poor were credit-constrained. Canton and Blom (2004) used Mexican data on actual loan provision. However, they could not measure the impact on enrollment because all of their population was already enrolled. They estimated impacts on academic performance instead, and found a fairly strong credit constraint, but with a strong

selectivity bias. Gurgand, Lorenceau and Melonio (2010) also observed a quasi-experiment of loan grants in South Africa and concluded that even middle income students were heavily constrained. In this particular situation, students who had a credit score just above a threshold had a high probability of having a loan while those with a score lower than the threshold had an insignificant probability of having a loan. Using the existence of this threshold as a source of impact identification, the authors showed that getting a student loan increased the enrollment probability by roughly 50 percent. Poorer households seem to be hit especially hard by credit constraints, as proven in a different manner by Attanasio and Kaufman (2009). The mechanism evaluated targeted middle-income individuals, in a country with a highly developed financing system²⁰ and an unsubsidized interest rate. One would expect the impact of such a mechanism to be rather low, but in fact it indicated the enormous magnitude of credit constraints in developing countries and the low level of savings of young households. Robust results found in the South African or Mexican contexts do not prove that credit constraints are equally binding in the MENA region. However, as the MENA financial markets and banks are less sophisticated than in OECD countries, it is very likely that strong credit constraints exist. For the preparation of this report, a dozen bank representatives from MENA were interviewed and the financial products of a dozen others were investigated (Melonio and Mezouaghi, 2010). Student loan mechanisms were found to be uncommon and, when they did exist, targeted towards upper-middle or high income students. In a recent report, Johnstone and Marcucci (2010) reviewed a number of student loan schemes in developing countries (see table 4.3).

²⁰ In South Africa, the credit-to-GDP ratio amounted to 88% in 2009, much higher than that of Burkina Faso (15%), Cameroon (23%), Nigeria (26%), Ghana (32%), or Kenya (35%). It indicates a level of financial development close to that of other emerging countries such as Vietnam or Thailand (between 90% and 100%, according to the IMF).

Table 4.3 Selected student loan schemes in low and middle income countries outside the MENA region

Country	Origination	Eligibility	Estimate Asset Value	Bearer of risk	Capital provision
Botswana	Department of Tertiary Education	General	Low	Government	Government
Burkina Faso (Prêt foner)	Government	Means-test	Negligible	Government	Government
Chile (Fondo Solidario de Credito)	“Traditional” universities	General availability w. means-test in traditional universities	Low	Government	Government
Chile (Credito de la Ley 20027)	Banks	General	Moderate to high	University first, followed by government	Banks and Government
China (general subsidized loans GSSL)	Banks	Based on repayment capacity	Moderate to high	Co-signatories or government	Banks and Government
Colombia (Access/ICETEX)	Government	Means-test	Low	Government	Government
Ethiopia	Universities	General	Negligible	Government	Government
Ghana	Student loan trust fund	Means-test	Moderate to low	Pensions of co-signatories	Pension fund
Kenya	Higher Education Loans board	Means-test	Low	Co-signatories or government	Government
South Africa	Tertiary education Fund for SA (TEFSA)	Means-test	Moderate to low	Government	Government
Tanzania	Government	Means-test	Low	Government	Government
Thailand	Government	Means-test	Low	Government	Government
Turkey	Government	Means-test	Low	Government	Government

Source: Johnstone and Marcucci 2010.

Based on this loan scheme analysis, Johnstone and Marcucci conclude that *“too often, the present discounted value of the repayment stream is totally insufficient to cover the cost of the money plus the administration and collection costs quite aside from any level of non-repayment, or default. Adding the losses from default and other causes of non-payment—frequently very great, especially in developing countries—leaves many governments unable to provide loans either in sufficient numbers or in sufficient amounts to meet the dual objectives of widening participation and effecting real cost-sharing.”*

However, *“if the design flaws could be solved or ameliorated by more reasonable rates of interest charged on student loans, and if the defaults could be lessened by e.g., better collection practices together with the addition of a governmental guarantee, or credit-worthy cosignatories, or by some degree of borrower risk rating (i.e., not lending to students deemed to be unlikely or unable to repay on the basis of their academic program or likelihood of completion), then—again at least in theory—student loan agencies in low and middle-income countries could tap banks and other entities in the larger capital market seeking profitable uses of their savings, at least for some portion of the annual student lending volume.”* In other words, few student loan mechanisms are self-sustaining and most of them require annual public financing to continue their activities. This does not mean that they are non-performing, but only that zero-interest rate loans, free grace periods, and the absence of risk coverage are costly characteristics of public student loan mechanisms.

4.3.1 Student loans in the MENA region

In the MENA region, because education returns are relatively low (due to graduates' unemployment and low participation rates), banks are reluctant to develop loans for students. However, some banks offer financial products for students' parents, based on their income or their capital and designed to pay for the cost of their children's studies. Such personal bank loans are in fact conceived as consumer credit granted by banks on market terms and invested by parents in their children's education.

In Lebanon, personal credit has grown relatively fast over the last six years at the initiative of the "retail" departments of the main banks. These loans are similar to consumer credit products in terms of interest rates (from 9 to 12 percent in Lebanese pounds, and about 200 basis points less in dollars) and maturities (short, from two to five years). These loans are not always labeled as education loans but the information gathered from banks indicates that their sales staff sell this product to parents whose children attend school or university. The parents are thus the borrowers and parental assets or income serve as loan collateral. At such high rates, few productive investments (in human or physical capital) effectively generate capital gains or allow a leverage effect to come into play with loan financing.

However, private universities also administer loan schemes either internally or through the intermediary of banks. The Université Saint-Joseph offers both an internal loan scheme and preferential agreements with banks. The internal system is the following: the university's financial aid service pays the student's tuition fees directly to the faculty and allows the student to repay in several installments. The installment arrangement can either be a service in itself (the student pays tuition to the financial aid service over several months) or a temporary service (while the student is waiting for funds from the financial aid service or from a foundation). An important aspect of this mechanism depends on the student's strong sense of belonging to the university and on the institution's widespread influence in the country, which means that non-repayment is a risky matter and comes at a high "social cost." Loans negotiated with banks also have favorable characteristics.²¹ Interest rates vary between 0 and 3 percent and the grace period lasts until one year after graduation. Some banks also offer life insurance, while others require a minimum score at the national *baccalauréat* (a score of 12 on a scale of 20). The objective of such a requirement is to screen students and try to limit the risk of giving loans to potential dropouts, who may never have a sufficient return to their investment in tertiary education. The very low rates offered to students rely on a recent initiative by the Central Bank of Lebanon (*Banque du Liban*), which makes soft loans to the country's banks in order to diminish the cost of these loans for the eventual borrowers, i.e., the students. Almost all banks in the country have started to broadly offer loans to students in the last two years, which indicates that the development of such loans can be relatively fast.

The American University of Beirut offers an intermediate loan mechanism. Initially, the university launched four tenders to local banks, giving them the exclusivity of student loans for four fields of study: medicine in 2003, engineering in 2004 (starting from the equivalent of level L2), nursing in 2005, and business from 2006 (also from level L2). Loans were complemented with grants provided by the social office for needy students. The highest bidders were, respectively, HSBC, Byblos, Banque Misr Liban, and Bank Med. In March 2011, the system was extended to all facilities through a new tender won by BLOM Bank and Fransabank. Beneficiaries now pay a 3 percent interest rate (in Lebanese pounds), are granted life insurance, and start repaying the loan one year after graduation. The total number of students receiving aid (grants or subsidized loans) at the American University of Beirut is 2,980, in the form of partial assistance (from 10 to 80 percent of tuition fees) and for an average amount of USD \$4,430. Nearly 34 percent of the students receive financial aid.

²¹ Bank conditions are listed at: <http://www.usj.edu.lb/services/social/index.html>.

Over the last three years, all major banks in the country have developed education loans for students in private universities. In 2008, most banks were skeptical due to the absence of information on the risk of student loans, and the common absence of material collateral, and were therefore waiting for their competitors to explore this market. Almost all banks are now competing to attract students, with the interest of building their future faithful customers. The case of Lebanon can be considered the precursor of the situation in the MENA region, since PHE is well-established there (50 percent of the country's students attend private universities) with a long history.

In the Kingdom of Jordan, the number of student loans has also expanded in the last three or four years, in line with the rapid increase in the private supply of HE and significant tuition fees in state universities.²² International donors fostered the process, for example via the World Bank's International Finance Corporation, Omnix International, and the Cairo Amman Bank, which launched a mechanism to provide loans to pay for the cost of tuition at state and private universities. Under this scheme, set up in 2008, undergraduates can receive loans of around JD 1,500 (USD \$2,100) while postgraduates receive around JD 2,000 (USD \$2,800). While studying, and for six months after graduation, students are only required to pay the interest on their loans, which must be fully repaid within four and a half years after the interest-only period.²³

The Jordanian Cabinet also plans to create a "Student Loan Bank" which may begin to operate in 2011. The experiment would start at the Jordan University of Science and Technology (JUST) and would serve as a model for other universities. As in the Lebanese case described above, the loans would probably be issued by the bank that wins the tender, not by the government. The state would provide the bank with collateral and pay the interest on the loans on behalf of the students through a "guarantee fund" to be established for this purpose. Loans would be available only for students studying majors needed on the labor market. Details of the project were not public in early 2011, but the government hopes to allow approximately two-thirds of students to have their education funded through scholarships or zero-interest loans by 2014.

In Egypt, the relatively recent restructuring of the banking sector and the subsequent emergence of retail banking services have not yet enabled bank offerings to develop much further than consumer credit products or personal loans (with collateral). However, a joint IFC/Credit Agricole Egypt student loans scheme was launched in 2009. Both banks associated with the Al-Noor Magrabi Foundation, the Sawiris Foundation for Social Development, and Al-Alfi Foundation cover some of the potential cost of such a scheme. Egypt is in many ways in the early stages of the development of finance for education. The late surge in the private supply of HE, the existence of a free public system, and the recent privatization of banks have delayed the development of sophisticated financing mechanisms, but they are appearing now, through the action of international donors, national foundations and private commercial banks. In this early phase of financial development, education loans will typically be given only to upper-middle income or well-off families, will be more difficult to get for first-year students (because of higher dropout rates and hence a higher risk), and will rarely be available for fields of study where job market insertion is difficult.

In both Tunisia and Morocco, given the predominance of free public education, student loans hold little appeal for banks. In Tunisia, for several years the sector's only non-grant financing mechanism was a financial market product. To reduce the cost of need-based financial aid,

²² According to *University World News*, "many potential students are unable to afford the costs of studying: a year's tuition fees at one of the country's private universities averages JD3,500 (US\$4,903), while state universities usually charge JD1,000 (US\$1,401) for subsidised places and JD2,300 (US\$3,222) for full cost."

²³ More specifically, Cairo Amman Bank is handling marketing and administering. The foundation Omnix International agreed to fund a share of potential bad debt. The IFC also launched a similar scheme in the West Bank and Gaza Strip in 2008.

some regulated credit is offered in order to finance studies in public education. Its price is fixed (100 basis points over the money market rate). Recently in Tunisia, local banks have begun to market complementary financial services. The Union bancaire pour le commerce et l'industrie (UBCI) is developing a universal credit product (not specifically addressed to students) which is mainly designed to gain young customer loyalty via a loan product backed by a savings plan (graduate plan) and a loan product backed by a service package, which notably incorporates the opening of an account and the issuance of a credit card (a product for young customers under the age of twenty-five). The BIAT launched a loan product for students (Najah) in 2009. This product is also backed by a savings plan giving access to a three-year loan at 200 basis points over the money market rate. The loan, limited to three times the amount saved, up to a ceiling of TND 15,000 (about EUR 7,500), is granted on a quarterly basis. It is repayable over six years (including one grace year) after the last loan disbursement has been made. Attijari Bank also offers loans for master's students (Mostakbali), backed by a savings plan. The loan amount is limited to twice the savings and must be reimbursed five years after graduation. The interest rate charged is 2.5 percent above the national Interbank offered rate (TMM). Generally speaking, Tunisian banks structure student loans as they do consumer credit, but aim for limited margins. It should be noted that the UBCI considers the risk on consumer credit to be relatively low, with a rate of outstanding credit at 10 to 12 per cent (payment arrears) and a final default rate of only 3 to 4 percent.

In Morocco, the government created a guarantee fund (*Enseignement plus*, set up in 2007) with the *Caisse centrale de garantie* to guarantee 60 percent of the amount of loans taken by students from Moroccan banks up to a level of MAD 20,000 per year (USD \$2,560 or EUR 1,770). This scheme is targeted towards Moroccan students under twenty-five years of age, studying ICT, electronics, electrics and mechanics, finance, accounting, and business administration. The government may guarantee up to five loans per student (i.e., a maximum amount of MAD 100,000) with a maximum grace period of five years, the interest rate being negotiated between the student and the bank, "taking the State guarantee into account." The cost of the mechanism for the borrower is 1.5 percent of the amount guaranteed. However, the limited development of PHE in Morocco (accounting for only 10 percent of the students in 2010-11, despite an objective of 20 percent in the 2000 National Education Charter), has led to modest utilization of this financial tool.

In the West Bank and Gaza, given the current circumstances, public financing for tertiary education is weak. Therefore, the system relies heavily on student fees which amount to 60 percent of universities' operating costs. Demand for tertiary education has increased dramatically in the past decades. The number of students enrolled in Tertiary Education Institutions (TEIs) has more than tripled in the last decade. Student loans are the main mechanism selected by the government to provide financial support to students, together with scholarships for the neediest families. A loan scheme was organized through the national Student Revolving Loan Fund (SRLF) and in the first semester of 2007/2008, more than 24,000 benefited from aid from the Ministry of Education and Higher Education (MOEHE). In parallel, there is a private loan scheme funded and administered by the Bank of Palestine (BoP) and the International Finance Corporation (IFC). The banks advance the loan funds to universities and colleges each semester, based on student demand for loans and on eligibility criteria. Students have an account with the bank, at no cost for students. The banks collect monthly payments automatically and send them to the Fund. Combined, the two schemes provide loans to students in all fields of study. The amount of the loans is up to JD 600 per semester. Monthly repayments of 4 percent of the loan value are payable immediately, and throughout the study period. A grace period of two years after graduation, with the same monthly payment as during study period, applies to all students. Upon employment, the loan is to be repaid at 10 percent of income per month. A notional (average) minimum grade point average (GPA) is set at 70 percent. A "moral" guarantor is to be provided, usually a family member. The guarantor is required to sign the loan contract in person, alongside the student,

at the university or college (or at the commercial bank, if so agreed). Depending on the terms of the contracts negotiated with commercial banks, administrative fees of 2 to 3 percent may be charged. Repayment commences when income reaches a specified minimum level (threshold) and drops back to the minimum payment if income ceases or drops below the income threshold.

There are few developing countries where such income contingent loans have been created. In South Africa, however, the NSFAS scheme²⁴ is an interesting example of such a mechanism. NSFAS is a public institution that offers loans to students living in disadvantaged households (earning less than ZAR 120,000 (USD \$17,300) a year in 2011). The interest rate is subsidized by the state and therefore much lower than in commercial banks: it is currently 2 percent above inflation, or 5.2 percent. Repayments start after graduation, only when the borrower's salary is higher than ZAR 59,300. This is in fact very similar to a complementary income tax, with repayment rates varying between 3 and 8 percent of the salary. Up to 40 percent of a NSFAS loan can be converted into a bursary when the student is successful academically. Of course, both income contingency and academic contingency imply a cost for the state, but this mechanism is likely the most sophisticated public loan scheme existing in an emerging country. In Colombia, the national student loan agency, ICETEX, also offers means-tested loans which are widely available; more than 60,000 students from the two lowest socio-economic strata received an ACCES loan over the last three years with the support of IBRD. The cost of such repayment options is presented in table 4.4.

4.3.2 Barriers to student loans development

In the MENA region, there has been an expansion of financial services and products dedicated to HE in recent years. Only three years ago, student loan mechanisms were extremely marginal and more comparable to deferred fees (within private universities) or consumption loans. Education loans are now more common, especially in countries with either significant tuition fees (e.g., Jordan, West Bank and Gaza) or a large private supply of HE (e.g., Lebanon).

University-funded loan schemes, mostly operated by private universities, whether in Lebanon, Egypt, Jordan, or Tunisia to a lesser degree, reveal a certain confusion of roles within the universities. Almost all of these schemes, intentionally or not, build up a portfolio of loans at the university (by accepting deferred payments or by granting direct loans) and guarantees (by setting high tuition fees but only recovering payments below the theoretical fee levels). In the second case, the university is the final guarantor for each student, as it ultimately bears the cost of non-payment. Outsourcing loan management, *a priori*, generates lower transaction costs and frees universities from the job of managing arrears. This trend for outsourcing seems to now be predominant in the region.

In the case of bank financing,²⁵ three types of limitations, with cross-country variations, hinder the growth of bank financing for schooling. These include:

(1) *A lack of market depth/maturity.* In countries where private education remains an exception to the rule (Tunisia) or marginal (Egypt, Morocco), the student loan market lacks depth, which accounts for the lack of maturity of the financial offering. For student loan mechanisms to be financially sustainable and able to expand, an important condition is to have a sufficient volume (or depth) in the national loan market to develop financial products

²⁴ See www.nsfas.org.za for details.

²⁵ In a recent World Bank survey based on focus groups, almost 80% of Jordanian students interviewed considered interest rates an issue, even though paying for inflation or bank fees is acceptable for half of this subgroup. Among those not willing to pay an interest rate, 75% think that their government could, however, pay this interest rate and/or guarantee the default risk to limit the need for an interest rate. Moral, religious and financial reasons can explain the reluctance of students to pay an interest rate.

with reasonable operating costs. The volume of the student loan market depends on: (i) tertiary enrollment; (ii) the share of private financing in the total tertiary education expense; and (iii) the size and density of the country's population. It is difficult to establish a general rule out of these three parameters, but when "Tertiary Enrollment" multiplied by "Share of HE Private Financing" is lower than 5 percent, student loans usually remain underdeveloped. A significant student loan supply may appear when the product of tertiary enrollment and the share of private financing is in the 5 to 10 percent range (e.g., when tertiary enrollment is equal to 30 percent and the share of private financing reaches 17 percent, the product of the two is 5.1 percent). In Egypt, Tunisia, or Morocco, student loans remain rather uncommon, unless there is a very strong density of students in a specific area which may allow a local loan system to operate in a limited niche. Student loans typically become available and popular at a relatively late stage of the HE massification process, when banks become more interested and attracted by the student "clientele."

This market is not fully structured yet in the MENA region. In most cases, apart from some Lebanese or Jordanian banks, loan products most often coincide with consumer credit products. The banks' approach is more a question of strategic choice than of technical constraint. Certainly, although relatively sophisticated portfolio monitoring tools exist (notably, access to a centralized pool of individual records and to a credit scoring system), Tunisian banks have very clearly adopted a rationale of universal, widely accessible products. Competition tends to intervene at the level of scale economies and, to a lesser extent, banking niches.

Moreover, monetary authorities provide no real incentive to encourage banks to contribute to financing education. One possibility is to exempt banks providing student loans from statutory reserve requirements, for an amount matching their loan portfolios. This type of measure would make it possible to lower the interest rate proposed to the final beneficiary by about 100 to 200 basis points depending on national regulatory constraints. The Central bank of Lebanon (*Banque du Liban*) administers, on behalf of the Ministry of Finance, interest rate subsidies reaching up to several hundred basis points to refinance the portfolios proposed by the banks; in other countries, the treasury could play a similar role, in particular to increase the demand for fields of study of national priority.

(2) *The (alleged) low profitability of student loans.* The initial low market volume of student loans effectively reduces their profitability, assuming that a larger market would reduce the fixed costs associated with developing new specialized banking products. Added to this are two other factors: the actual nature of the banking product, which has a limited unit value, and the banks' arbitrage in favor of other potentially more profitable investments. However, the recent development of student loans in Lebanon indicates that once a student loan product is launched, even if it restricted to only a few universities and fields of study, the extension of such products is rapid in the banking sector. However, the access to credit might, once most banks have developed the product, be limited to upper-middle and high income households, as the research cited earlier has shown.²⁶ Anecdotal evidence suggests that banks target the students of high income families, both to limit credit risks and to strengthen their relationship with the parents.

(3) *Banks' aversion to "student risk."* In the region, banks are reluctant to take credit risks on student loans, even though most of them consider this market to have high potential in the medium term. Loan institutions (which can be a bank, a microfinance institution, or a university) need to be able to limit default risk. In emerging countries where a large share of the economy is informal, the risk of non-repayment is difficult to estimate *ex-ante* for a lender. Student loan institutions therefore usually start to give loans only to upper income customers they already know (most of the time, the parents) and expand their loan supply once they have developed the means to measure and limit the credit risk. Lenders need to

²⁶ See Attanasio and Kaufmann (2009) and Gurgand et al (2010).

develop economic, legal, and social means for repayment. In some universities, the degree can be conditional on the payment of tuition fees, but most of the time, banks or MFIs look for more traditional guarantees.

The granting of a loan therefore remains almost exclusively conditioned on the provision of collateral and proof of asset ownership (a guarantee is thus systematically required, most of the time brought by a close relative) or other mechanisms to bear the risk, such as those developed by International finance institutions or philanthropic foundations. Loan approval is usually given to individuals with the best collateral rather than to those with the most talent. The situation is comparable to that observed for SME financing. Massive youth unemployment is one explanation for this phenomenon: the return to education is not the main motive to grant an education loan. On the contrary, bankers would rather lend money to children of wealthy families to attract new customers from privileged social backgrounds and to keep them over the long term. In countries where dropout rates are high, banks are also less likely to offer loans to first-year students. Because grades in high school are not a sufficiently good indicator of the dropout risk, many banks target second-year students, assuming that their probability of failure is much lower. International migration is also a factor limiting the development of student loans, since repayments are more difficult to collect when students emigrate to a foreign country.

Table 4.4 Comparison of different public cost scenarios of cost-sharing strategies

	Year N	N+1	N+2	N+3	N+4	N+5	N+6	N+7	N+8	Total cost for the state (A)	Share of the cost paid by the state. Option 1: discount factor=5% (B)	Share paid by the state. Option 2: discount factor=5%
of studies (positive values mean a positive	100.0	100.0	100.0									
sh by students	0.0	0.0	0.0							0.0	0.0%	
udent, zero-interest-rate loans for 25% of	25.0	23.8	22.7	-10.8	-10.3	-9.8	-9.3	-8.9	-8.5	13.9	4.9%	
udent, zero-interest rate loans for all	100.0	95.2	90.7	-43.2	-41.1	-39.2	-37.3	-35.5	-33.8	55.8	19.5%	
y students, zero-interest loan only ne population	62.5	59.5	56.7	-5.4	-5.1	-4.9	-4.7	-4.4	-4.2	149.9	52.4%	
y students, zero-interest loan only ne population, 80% loan and tuition	70.0	66.7	63.5	-4.3	-4.1	-3.9	-3.7	-3.6	-3.4	177.1	61.9%	
y students, zero-interest rate for all	100.0	95.2	90.7	-10.8	-10.3	-9.8	-9.3	-8.9	-8.5	228.4	79.9%	
y students, zero-interest rate loan for all, ent of loans	100.0	95.2	90.7	-5.4	-5.1	-4.9	-4.7	-4.4	-4.2	257.2	89.9%	
costs of a 100% public financing	100.0	95.2	90.7							285.9	100.0%	1

Source: Author's calculation.

Table 4.4 draws a comparison between different financing mechanisms, sorted from the lowest cost for the government to the most expensive. In this theoretical construction, the nominal cost of education is normatively fixed at 100, repeated three times (or three years, assuming that the time unit is one year). In option 1, the cost of education is fully paid by students, the share of the cost paid by the state is therefore zero, and the public discount factor does not change the public cost (columns B and C). This situation corresponds either to a fully privatized education system or to tuition fees equal to the cost of education in public universities. In this configuration, many students of disadvantaged backgrounds will be excluded from HE and the social optimum in terms of tertiary schooling may not be reached when credit markets for education are incomplete and imperfect. In option 2, zero-interest loans are offered to the fourth quartile of students. The cost of such a policy varies with the discount factor (typically the interest rate paid by a government on its sovereign debt), but remains modest (4.9 to 8.6 percent of the total cost). In option 3, tuition fees are also equal to education costs, but zero-interest loans are universal. The cost of this policy varies greatly with the discount factor, but it is high when interest rates are high. This option is equivalent to deferred fees to be paid to the government. Alleviating the credit constraint and diminishing opportunity costs of education may therefore cost between 20 and 35 percent of the total cost of schooling. Option 4 shows the public cost of having students pay for half of the total cost of higher education with a loan scheme for the lowest quartile of students. This situation is similar to that in the Republic of South Africa. In this option, the state pays roughly half of the cost of schooling.

In option 5, the possibility of a partial non-reimbursement of loans or tuition fees exemptions is tested, for example on a merit basis, but no loan system can guarantee a 100 percent repayment rate. This option corresponds approximately to the South African situation described above. In this design, the state pays for just over 60 percent of the total cost of education, while subsidizing loans for needy students and encouraging academic success via tuition rebates or the conversion of loans into bursaries for the most successful students.

Option 6 replicates the same operation, but with students paying only 25 percent of the cost of their education, with a universal subsidized loan scheme. Option 7 is very generous to students, since they pay only 25 percent of the real cost of education, benefit from zero-interest rates, and half of the loans are converted into bursaries. In this situation, the state eventually pays 90 percent of the cost of education. Option 8 gives the discounted cost of education for the state when it pays the whole cost of education.

This table can be used as a tool to design either a cost-sharing mechanism or the transition between two states of cost-sharing. While it is tempting to make formal recommendations, there is little evidence to suggest that one type of cost-sharing is superior to another. However, some general comments can be made. The first is that the universalization of zero-interest student loans is very costly when interest rates are high. Therefore, mechanisms such as deferred fees might be more costly than expected when this option is given to all students. The second is that cost-sharing must be associated with an increase in the quality of education, otherwise it will be very difficult to justify students paying more for a low-cost/low-quality service. The third is that any loan mechanism has to be built assuming that some loans will not be repaid, either voluntarily (because loans are turned into bursaries based on academic success) or not, because not all students will be able to repay their loans, even if repayment is based on the tax system. Finally, the table above is notional, and does not include the management costs associated with each system. Taking this into account, option 7 might not be viable, as transaction costs might make it more expensive for the society as a whole.

4.4 What is the future of cost-sharing in the MENA region?

In virtually all countries in the MENA region, the number of students will continue to increase in the coming years, even though the rate of growth may decrease in selected countries. Therefore, issues related to a declining public expense per student are not likely to be solved in the near future. The need to find additional resources (and use them more effectively) will be equally pressing in North African and non-Gulf Middle East countries. In this context, the rapid increase in both the supply of PHE and the cost of education in public universities for families (through fees and living expenses) is likely to foster the development of loan schemes. In this chapter, a number of experiments currently being led in the region have been reviewed. Given this, the following conclusions can be drawn:

- The private supply of HE will likely grow faster than the public supply, leading to an increase in average tuition fees paid by students and their families. Even public universities will likely try to find additional private resources, either through direct contributions from the private sector or through direct or indirect tuition fees in selected trainings.
- Loans targeted towards students from lower income levels are essential to broaden access to education when either the share of students in private universities is high or when public universities charge significant fees. While few public universities are officially allowed to collect fees, this principle does not necessarily hold in all fields or levels of study. Students are typically required to pay for evening and weekend courses or cover some indirect costs of education, which may bias the selection of students.
- As long as the share of PHE is lower than 10 percent, student loan mechanisms hold little appeal for banks, since the number of potential customers is too limited. However, once private universities begin to grow in size and in number (see chapter 5), student loans are offered by more banks and may also become available for employees of the public sector willing to develop new skills. In the public sector, despite the theoretical risk aversion of individuals, employees might find it acceptable to borrow to further their studies, since they can benefit from legal clauses guaranteeing them a job in their original administration and an automatic promotion if they obtain their degree.
- Student loan schemes subsidized by a government can prove costly when the interest rate charged or the repayment rates are low. However, such a financing scheme is still less costly than a fully free HE system.
- Income contingent loans (ICL) are, theoretically, a good way to attract students from disadvantaged social backgrounds, who might otherwise be deterred from investing in their education. However, the relevance of traditional ICL is not self-evident when a large share of the economy and of wages is informal, and when a state cannot readily assess the revenue of all its citizens. In that context, hybrid loans (see Johnstone and Marcucci, 2010) with scheduled and income-contingent repayment obligations, may be more suitable.
- Low-cost HE systems are costly in the long run. The impoverishment of universities is often the consequence of diminishing public expenses per student and little effort to attract private financing. This scenario naturally leads to a decrease in education quality and high rates of youth unemployment. While raising tuition fees, setting up loan mechanisms, attracting private sector money, or fostering the development of the private sector may seem unattractive at first glance, for countries with a long tradition of fully public funded HE, these are alternative policy options that can better serve the HE needs of young people in Arab countries.

Chapter 5: The role of private provision in ensuring financial sustainability, increasing access, and improving relevance and quality of Higher Education

As discussed in previous chapters, one way to increase the supply of HE services without having to provide additional public finances is to allow the private sector to be active in this particular market segment. Note that the development of PHE is different from privatization of HE, which involves transforming public higher education institutions (HEIs) into private bodies.

The ongoing ideological (and economic) debate of whether HE is a public or private good, or both, is still strongly polarized. On one hand, some argue that HE trains tomorrow's leaders, and that societies as a whole gain from having cultivated, engaged, and well-trained citizens; to ensure further positive evolutions, the state should therefore cover HE expenses. This argument is often linked to the necessity of keeping or implementing gradual taxation to ensure a certain sense of equity in the system; with gradual taxation, high earners, who are likely to have benefited from HE, pay more taxes and thereby contribute more to the financing of HE.²⁷ On the other hand, others argue that HE results in better jobs with better salaries (the "education wage premium") and prospects; people would not study further otherwise. Therefore, the existence of high private returns justifies privatization of HE. Another recurring argument is that, contrary to common belief, general public HE favors students who are on average better off, and thereby reduces equity within a given society.²⁸ Studies over the years have shown that HE has both social and private returns; depending on the methodology applied, the estimate of the difference between the two varies. Often, the difference is due to the inherent difficulty in quantifying social returns and to varying definitions (e.g., taking into account externalities or not; the specific costs included; etc.).²⁹

In most countries, practice has shown that public and private provision of HE can coexist, each with its own specificity and value-added. In other words, PHE can complement its public counterpart. Its existence nonetheless raises a series of questions that are highlighted in this chapter. After a short explanation of the main concepts of and current situation regarding PHE in MENA, the chapter will address the extent to which PHE in general, and in the MENA region in particular, can: (i) contribute to a systemic increase in financial sustainability; (ii) increase access; and (iii) help improve the relevance and quality of HE.

5.1 Private Higher Education: concepts and actors

Education policies are a reflection of a society's culture, values, and history; the space given to the development of PHE is also subject to this policy-making lens. Fiscal constraints have pushed governments in the MENA region to reconsider and progressively open up to the development of a viable PHE sector, despite traditional preference for public HE. PHE enrollment figures are still low compared to other regions in the world, such as Latin America or South Asia, but they are growing. The reforms passed in the last few years, combined with

²⁷ A contribution to the redistributive impact of education spending and their financing can be found in Allègre et al (2010).

²⁸ Please refer to Blöndal et al (2002/I) for an interesting account on returns on HE, equity and related matters.

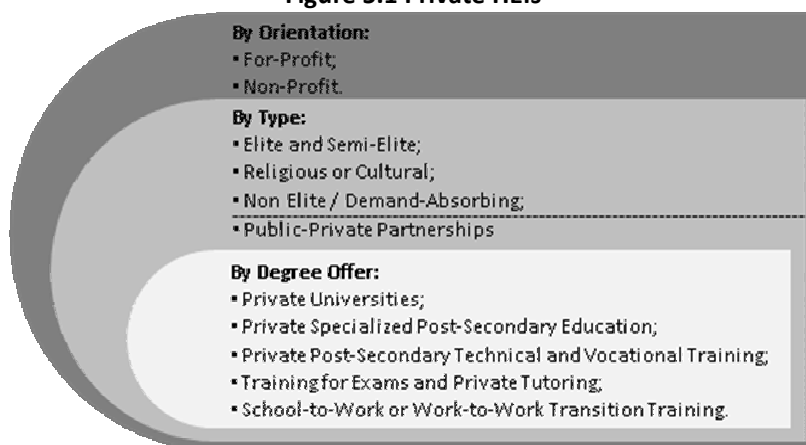
²⁹ A more detailed overview of rate of returns methodologies can be found in Psacharopoulos and Patrinos (2004).

the current excess demand for education, are likely to trigger a sustained, strong progression towards PHE.

In MENA, the development of PHE has surged only recently, with some notable exceptions.³⁰ The region is characterized by strong heterogeneity: some countries are just now appealing to the private sector, while others, such as Lebanon, have a long history of private HEIs. Lebanon is a particularly interesting case in which religious and cultural factors drove the creation of the first private HEIs, which at first replicated the programs and structures of quality public HEIs, and then themselves became both the norm and the more popular (in number of institutions as well as in enrollments).³¹ Another case is that of most of the oil-producing Gulf countries: the political will to diversify these economies translated into an appeal to foreign universities to create public-private partnerships (PPPs) to develop the HE market. One characteristic common to all private providers is that they tend to be more "politically independent" than their public counterparts due to their shareholder structure. This governance difference can enhance flexibility and the ability to more rapidly respond to market needs, but can also cause friction (e.g., between (financial) management goals and the professional values of academic staff).

After introducing the distinction between for-profit and non-profit HEIs, this section presents typologies of private HEIs by type and by degree offer (see figure 5.1).

Figure 5.1 Private HEIs



Source: Author's compilation, based on Levy 2009.

5.1.1 Distinguishing PHE actors by orientation: for-profit and non-profit

A major distinction can be drawn between for-profit and non-profit private HEIs. The former are less numerous than the latter, mostly due to the fear of education becoming a commercial consumption product, with a production process exclusively focused on efficiency, shareholder value, and profits. Therefore, around the world, legislation has been adopted to limit the operation of for-profit HEIs.

The restrictions can have drawbacks, however. Especially in countries where for-profits are not allowed or are restricted in some way, the literature refers to a whole range of actors who act as "non-profits in disguise" (Levy, 2009). In Egypt, for instance, this debate was

³⁰ For a broad overview of worldwide trends, region by region, please refer to Chapter 6 *Private Higher Education and Privatization*, in *Trends in Global Higher Education*, UNESCO (2009).

³¹ To date, there is only one public university in Lebanon, the Lebanese University, which nonetheless hosts about half of all HE students registered in the country (recall box 3.1 in chapter 3).

particularly strong as for-profits and non-profits were taxed differently; for-profits were taxed on turnover (i.e., annual sales volume net of discounts and sales taxes) while non-profits paid no taxes. In general, for-profit education is frequently criticized for favoring quantity (motivated by revenues) at the expense of quality. Some economists argue that the market will automatically reward serious for-profit HEIs and eliminate the others, and that equity can be dealt with by the redistribution of tax collection revenues by the government.

It is widely recognized, however, that existing market deficiencies justify regulatory intervention to delimit the boundaries of operation for for-profit HEIs. The literature presents four main reasons for private HEI regulation: (i) to protect consumers; (ii) to share information for consumer decision-making, thereby reducing existing information asymmetries; (iii) to ensure that public policy takes into account the status and activities of the private sector (this appears particularly important to ensure that all fields of study are represented, not just those that are "marketable"); and (iv) to monitor the financial results of for-profit providers. In addition to securing individuals' investments in case of bankruptcy, this is crucial for determining the possible eligibility for public funding (Fielden and Varghese, 2009). Fielden and Varghese (2009) state that "*Markets are more reliable in ensuring efficiency than equity, while their role in ensuring quality is debatable.*" One solution to the latter is to implement efficient monitoring and QA mechanisms for all HEIs. This point is addressed later in this chapter.

Finally, anecdotal evidence gathered in some countries highlights the usefulness of allowing coexistence of for- and non-profit HEIs: in Morocco and Tunisia, for instance, some entrepreneurs expressed regret at not having the possibility of registering as non-profits. In their view, this would strengthen their image and indicate more clearly that they are focusing on education rather than profit-seeking. Furthermore, it could facilitate their search for funding by allowing public subsidies. Thus, the regulatory framework should specify the "rules of the game" for actors motivated by different goals, and allow for a certain "level playing field" while ensuring HE access, quality, and equity.

5.1.2 Distinguishing PHE actors by type

Broadly speaking, the literature refers to three categories of private HEIs: (i) elite/semi-elite; (ii) religious/cultural; and (iii) non-elite/demand-absorbing; and one cross-cutting category, (iv) Public-Private Partnerships (PPPs):³²

- (i) Elite and semi-elite private HEIs aim to achieve academic and intellectual excellence. While the understanding of "elite" is straightforward, "semi-elite" refers to private HEIs that "compete" with second-tier public HEIs. They share some common traits: a focus on good practical training or teaching; recruitment of students from good socio-economic backgrounds; a labor market orientation; political and/or economical conservatism; and the search for international links and recognition. Finally, some apply a "niche strategy" by only offering degrees in one or a few specific, marketable study fields, such as business administration or engineering (Levy, 2009).
- (ii) Religious or cultural private HEIs were historically Christian HEIs founded around the world and privatized during state secularization movements. Today, they also include Islamic HEIs and HEIs linked to other religions and/or cultures. In most of the non-Muslim world, these organizations have evolved over time, and a majority of students and professors now choose them for reasons other than faith. Religious or cultural

³² Refer to Levy(1986), Geiger (1986), or Marginson (1997), all as referenced in Levy (2009).

private HEIs were also established as alternatives in communities where "population group quotas" were put in place in public HEIs, such as in Malaysia (Levy, 2009).

- (iii) Non-elite or demand-absorbing HEIs represent the remainder of HEIs; in other words, these organizations emerged to address the gap between education demand and supply not filled by the first two categories. They are usually not labeled as universities and are very varied in nature. As Levy (2009) states, "*The non-elite subsector is sometimes denounced in rabid terms. Much of the denunciation is earned, though much could be (to less political applause) similarly aimed at low-level public institutions.*" He distinguishes between two types of demand-absorbing HEIs: (i) serious private HEIs operated on "good business principles" and aimed at facilitating access to the labor market by their students and alumni; and (ii) non-serious private HEIs, either run in an amateur way or entirely dedicated to the quest for profit. Regulations by governments usually (should) aim at ensuring at least a minimum level of education quality to reduce the impact of the latter.
- (iv) Public-Private Partnerships (PPPs) are a cross-cutting type of private HEIs, with two main approaches: (i) different HEIs pool resources together in a new, distinct entity to achieve a "win-win" situation whereby, for example, a public HEI collects additional financing while the private partner gains the legitimacy associated with the brand name of the public HEI; and (ii) paying students are included in public HEIs. This latter approach is particularly used in Central and Eastern Europe and is heavily criticized. One criticism is that better off students are usually able to access public HEIs, while students having to pay for HE are often in lower socio-economic categories. That is, without progressive taxation, free (but selective) public HEIs tend to favor students who are better off, on average. If PPPs are developed to increase access to public HEIs by enrolling paying students, then those paying students will most likely be less well-off than the non-paying students who were already enrolled, thereby reinforcing inequities, rather than reducing them. Both approaches seek to provide additional placements, in addition to reaping financial advantages (Levy, 2009). Finally, PPPs can be legally established in a variety of ways, as illustrated by the three German Universities in Egypt, Jordan, and Oman (see box 5.1^{33,34}).

³³ See <http://english.ahram.org.eg/NewsContent/1/64/8444/Egypt/Politics-/German-University-students-resume-their-protests-i.aspx> for more information.

³⁴ The DAAD, the German Academic Exchange Service, is a partner of all three universities providing financial support and language lecturers.

Box 5.1: One origin, three approaches to PPP: the German University in Cairo, the German-Jordanian University, and the German University of Technology in Oman

While all three universities carry the name "German" and partner with German authorities and HEIs, their legal settings, structures, organizations, and goals vary.

The German University in Cairo (GUC), the oldest among the three examples, was established in 2003 as a for-profit institution in cooperation with the State Universities of Ulm and Stuttgart. The study programs: (i) were created based on labor market demands and follow the German study structure; (ii) lead to degrees with double (Egyptian and German) accreditation; and (iii) include up to 50 percent of practical courses. The GUC is also involved in research activities. Overall, the GUC has

5.1.3 Distinguishing PHE actors by their degree offer

Finally, private HEIs can be distinguished by their portfolio or degree offer. One classification method differentiates between:

- Private universities, which usually deliver the full degree spectrum of bachelor's, master's and doctoral degrees;
- Private specialized post-secondary education, which mostly focuses on bachelor's and master's degrees;
- Private post-secondary technical and vocational training programs, which typically provide certificates and bachelor's degrees;
- Training for exams and private tutoring, which, by definition, have narrow objectives; and
- School-to-work or work-to-work transition training (also referred to as executive and corporate training), which often leads to specific certificates.

Depending on the degrees offered, the HEI's focus will be different and this will affect its structure, goals, and vision.

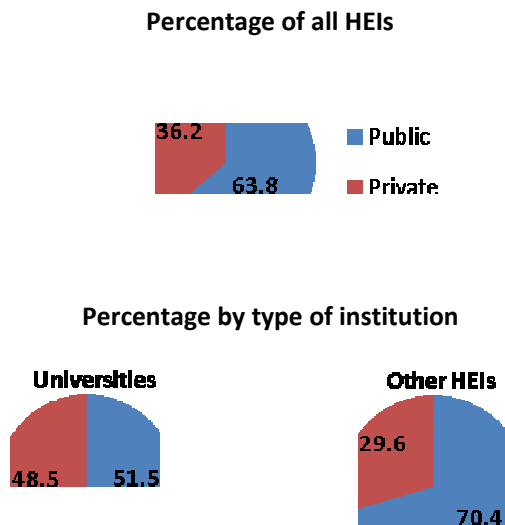
5.2 Private Higher Education in MENA

Reliable and internationally comparable statistics on private HEIs are rare throughout the MENA region, as well as for most countries outside the OECD (Hahn, 2007). Some monitoring systems have only recently been put into place and are not yet mature enough to offer data. Concurrently, most developments in the area of private HEIs are also very recent and not well documented. Therefore, this chapter focuses mostly on trends and international experience rather than providing specific data about PHE in the region, unless otherwise noted. Nevertheless, with the caveat that there are limitations to the data, some preliminary statistics are presented to illustrate the extent to which PHE is emerging in MENA.

In 2008, private HEIs represented about 36 percent of all HEIs in the Arab world (see figure 5.2, top panel). Differentiating by type of institution, about 48.5 percent of universities were private HEIs, and 29.6 percent of other HEIs were also private (see figure 5.2, bottom panel). Distinguishing by country, the 2008 data show extreme differences; over 80 percent of HEIs in Lebanon and Palestine are private, while in Algeria, the percent of private HEIs is

negligible (UNESCO, 2010). Private HEIs educate about 20 to 25 percent of all MENA students, compared to over 50 percent in Latin America or East Asia (IFC/IDB, 2011). This suggests that there is a relatively large opportunity to further develop PHE, provided there is a political willingness to do so.

Figure 5.2 Public and private HEIs in the Arab region in 2008



Source: UNESCO 2010.

Melonio and Mezouaghi (2010) consider the rise of PHE in MENA as unavoidable. They link the demand for PHE to the following issues: (i) worsening public HE quality; (ii) growing needs for re-qualification through post-graduate programs; (iii) increasing needs for corporate executive trainings; and (iv) students' preferences for study programs in their home towns or regions to avoid additional costs linked to transport and/or housing (Melonio and Mezouaghi, 2010). In addition, more specific needs can be factored in, such as desire for adequate religious/cultural training or a more flexible, work-oriented curriculum. The latter relates to the extreme unemployment of young university graduates across the region,³⁵ and to prospective students' quests for "marketable" degrees.

5.2.1 Legal frameworks

Reforms over the last decades, combined with strong political will in various countries, have provided more space for the private sector to grow in MENA, as evidenced by the fact that about two-thirds of the universities created since 1993 in the Arab Middle East are private entities (Romani, 2009). At the same time, the legal frameworks and practices underpinning the development of PHE in MENA remain very diverse. As an illustration, consider the PPP practices of three GCC countries that have focused on attracting international elite universities. Through the Qatar Foundation, Qatar proposes to finance most of the construction costs for newly opened campuses. The United Arab Emirates has emphasized more symmetrical financial burden-sharing between the government and incoming

³⁵ A World Bank study (2004) showed that unemployment in MENA was highest "for groups in the middle and upper end of the education distribution." Furthermore, according to the International Labor Office (ILO), in 2010, youth unemployment in the MENA region was expected to be the highest in the world at about 24%, compared to about 16% in Latin America and the Caribbean; or even 8% in East Asia. Moreover, the trend over time is negative both for Northern Africa and for the Middle East (ILO, 2010).

universities. Lastly, Saudi Arabia has chosen a state-driven approach with public universities exclusively, leaving some room for the emergence of private university colleges (Mazawi, 2008). Despite the geographic proximity of these three countries, the approaches are very different.³⁶ Widening the scope to the entire region, these differences become even more evident (see box 5.2 for a more detailed account of PHE in Morocco³⁷).

Box 5.2 Private Higher Education in Morocco

PHE is a recent phenomenon in Morocco. First introduced in 1984-1985, with two private institutes for business administration enrolling 71 students, the sector now encompasses about 200 private institutes, 39,000 students, and 4,315 professors (of which 512 are full time). These private HEIs are focused on teaching specific subjects, with 71 percent of students in business administration, management and communication; 24 percent in sciences and technology; and 5 percent in paramedical studies. This rapid evolution came about through the determination of the government, which has regularly updated and expanded PHE regulations from missions, objectives, and governance to quality assurance and accreditation. As of October 25, 2010, the term "private university" was authorized for use. In partnership with the *Caisse centrale de garantie*, the government has also set up a scheme to guarantee loans taken by investors to create private universities. Anecdotal evidence suggests that this guarantee functions well and could trigger the creation of additional private universities in the country. The government's next steps include finalization of the regulatory environment, definition and establishment of incentives to develop public-private partnerships, and promotion of the sector's growth, with the aim of reaching 14 percent of total registrations by

Legal frameworks can enhance or limit the supply of private provision. More so, they can and should enable quality control over the services provided. Some legal elements that define a comprehensive PHE regulatory framework, with examples found in MENA countries, are as follows:

- *Some legislation on PHE gives providers a statutory basis for operation and clarifies their obligations as well as their rights and entitlements. In general, legislation must specify some minimum requirements that any private institution must meet.*
 - In Morocco, for instance, building on Law 01-00 on HE, Decree 2.07.99 (June 27, 2007) determines the modalities to open, extend, or modify private HEIs. Regulation 2054 of the Ministry of Higher Education (July 16, 2010) establishes minimum conditions for the accreditation of study programs; e.g., at least 30 percent of classes must be taught by permanent professors; minimum teacher-to-student ratios are set, etc. Finally, Decree 2.10.364 (October 25, 2010) establishes the requirements for HEIs to be authorized to use the label "Private Faculty/University."
- *Some policies define the role of the private sector and its contribution to national higher education goals.*
 - E.g., Law 11 of 1998 in Palestine and Law 23 of 2009 in Jordan state HE objectives for all institutions, whether public or private.
- *There are often clearly defined procedures for establishing new HEIs.*
 - Establishment of new private HEIs is often linked to Quality Assurance (QA) processes that involve licensing and accreditation of new service providers as well as of study

³⁶ For more details, please refer to Romani (2009).

³⁷ Most of the information in box 5.2 is based on Debbarh (2011) and on information shared by Melonio.

programs. E.g., the Oman Accreditation Council is in the process of setting up such a two-step process, and communication efforts are underway to explain it to stakeholders.³⁸

- *Regulation can assist in the development of a regular and effective external QA process that has the confidence of private providers and assures the general public of the quality of provision.*
 - E.g., several countries in MENA have established QA agencies (see table 5.2).
- *Consistent and clear policies regarding support from either the central or regional government often exist.*
 - E.g., the diverging levels of public intervention and support for the creation of PPPs in Qatar, Saudi Arabia, and the United Arab Emirates are an illustration of the variety of practices across the region.
- *There are policies on demand-side financing (for students interested in enrolling in private institutions) and supply-side financing (such as enabling staff to bid for research funding on equal terms with state-funded academic staff).*
 - E.g., recall the discussion in chapter 4 of student loans in the region, and of other demand- and supply-side tools in chapter 3.
- *Private providers' obligations in terms of information provision and reporting, and the non-academic monitoring to which they might be subject, can be regulated or at least clearly stated.*³⁹
 - Existing QA processes vary according to national provisions. The websites of many national QA bodies provide details on these requirements.

5.3 The contribution of Private Higher Education in MENA

It is crucial to determine the extent to which PHE actually contributes to improving the HE system as a whole. Based on a review of the literature and experience in other regions, three categories of contributions are identified and discussed:

- Financial sustainability, or how private HEIs can contribute to adding resources for HE;
- Access, or how private HEIs can contribute to deepening access to HE; and
- Relevance and quality, or how private HEIs can contribute to improving specialized and high quality education, particularly in areas where public provision is scarce or does not meet market standards.

5.3.1 Financial sustainability

Private HEIs can contribute both directly and indirectly to increased financial sustainability of the HE system as a whole. First, private HEIs are almost exclusively privately financed in MENA, with the notable exception of Lebanon where public resources can also go to private institutions (Melonio and Mezouaghi, 2010). These private finances would not be available to the HE system as a whole if it were not for the existence of private HEIs. Most of the resources come from student fees, which students and their families see as an investment in their future. A recent study by the IFC and the Islamic Development Bank (IDB) found that over one-third of surveyed young people would be willing to pay student fees if they felt it would improve their job prospects (IFC/IDB, 2011). Together with the relatively low PHE

³⁸ An explanatory leaflet can be found at:
http://www.oac.gov.om/files/home/licensing_and_accreditation_system_leaflet.pdf

³⁹ See Fielden and Varghese (2009).

participation in MENA as compared to other regions in the world,⁴⁰ this points to a large uncovered market niche for providers, and also to untapped resources for HE as a whole, provided quality is ensured.

Second, private HEIs are thought to be more efficient in general, i.e., to have lower per student costs for various reasons, such as smaller numbers of full time professors (and conversely, more part-time lecturers), a focus on cost-effective fields of study, and a quicker completion record of students (Levy, 2008). Therefore, some argue that this pressure will force public HEIs to reconsider their model and become more competitive, thus freeing up some resources. While this "indirect" contribution has not been empirically demonstrated, it is still likely possible that public financing of HE can be made more efficient.

Therefore, PHE can lead to an increased financial sustainability of HE systems through the additional finances it makes available, as well as through increased competition that indirectly enhances the efficiency of the entire HE sector.

5.3.2 Access

Given the absence of reliable data in the MENA region, calculation of increased access to HE through the development of private HEIs is currently impossible. However, it is clear that private HEIs increase overall access to HE through: (i) the augmented availability of total student placements; and (ii) the fact that most of their students would otherwise not be enrolled in HE (Levy, 2008). In another document, Levy (2009) goes one step further: if private HEIs have lower per student costs, then whether or not they have access to public funds, they still contribute to deeper access to HE as more placements are created for the same level of public expenditure. While some overlap between public and private providers can occur, this forces actors to compete for increased efficiency. Moreover, Levy details the specific impact on HE access of each private HEI category in the typology described earlier (see table 5.1). Finally, an OECD study found that in its member states, increased private HE funding was linked with higher participation rates, thus suggesting increasing levels of access (OECD, 2008).

⁴⁰ The Middle East and North Africa are still described as "Beginning to register private higher education enrollment." Please refer to Chapter 6 *Private Higher Education and Privatization*, in Trends in Global Higher Education, UNESCO (2009).

Table 5.1 Private Higher Education modalities and their impact on access

Type	Access Degree	Access Contribution Modes*
All modalities	Varied	Can bring additional revenue, which in turn allows the financing of more HE slots, and can open up slots in the public sector. In addition, per-student costs are generally lower in the private sector, allowing for more slots for the same money.
For-profit***	Limited but potentially large****	Mostly overlaps non-elite type, but also semi-elite. Enlarged size through tuition and external investment, domestic and international. Novel modes to increase access at efficient cost.
Semi-elite**	Limited	Brings additional finance (fees, business, international); frees space at good public institutions; diminishes brain drain.
Religious / cultural	Moderate	Accommodation of religious, ethnic, or gender groups that are judged underrepresented in public sector; brings finance through voluntary contributions as well as tuition and frees public sector space. Access through choice.
Non-elite	Large	As soaring demand exceeds public (and other private) supply. Students come from modest socio-economic backgrounds, or are often families' first generation in HE, working students, or job-seekers. Flexible delivery modes. Low tuition, but access to "fly-by-night" institutions is dubious.
PPPs***	Potentially large	Overlaps previous two categories. One route often combines an access college with a high-status university, bringing additional revenue and thus enrollment openings. Another route is allowing private (paying) students into public universities.
<p>* This column identifies contributions but does not evaluate them or compare them to other modes, including types of expanded public access.</p> <p>** Elite PHE is very rare outside the USA – it can play some of the access role listed here for semi-elite.</p> <p>*** Cross-cutting forms rather than one of the three principal PHE types.</p> <p>**** Already large if one counts "non-profits in disguise."</p>		

Source: Based on Levy 2009.

As stated earlier, the development of PHE could have negative impacts on equity. Reliable statistical data on the overall (and sector-specific) student population would shed more light on the equity aspects of a broadened HE. Some argue that equity should not be a priority of PHE. Pushing the market argument, some would go as far as to state that the equity aspect should be addressed by governments through the redistribution of some of the income tax collection revenues to poorer segments of the population. Tools that governments can put in place to minimize equity gaps are detailed further in other chapters of this report.⁴¹

5.3.3 Relevance and quality

5.3.3.1 Relevance

Different types of private HEIs correspond to specific needs that influence the structures of the institutions. With their relatively smaller sizes on average, private HEIs are generally more narrowly focused and flexible than their public counterparts. Their governance structures also allow them to adapt more rapidly. The motivation to increase efficiency and to attract more and better students also pushes private HEIs to develop innovative education models in terms of delivery, curricula, etc.

Furthermore, their ties with the market can provide them with additional value-added in terms of graduates' employability, through provision of more professional trainings by practitioners, networking, campus recruitment fairs, and other corporate partnerships. The joint IFC/IDB study mentioned earlier includes a survey of about 1,500 private employers

⁴¹ Please refer to chapter 3 for an overview of the role student loans can play and to chapter 4 for some redistributive aspects of financing tools such as earmarked funds.

across MENA; the main conclusion was that to enhance graduates' employability, students need to receive adequate training in: (i) both theoretical and applied knowledge; (ii) "soft skills" such as leadership, creativity, interpersonal, and problem-solving skills; and (iii) languages, especially Arabic, French, and/or English, depending on the context. The employers surveyed attributed these gaps to poor course choices and outdated course content in existing HE programs (IFC/IDB, 2011). These are challenges that private HEIs can help meet given their structure and flexibility.

For these reasons, and with reference to the earlier typology by degree offered, private HEIs can contribute to enhanced relevance of HE in the following ways:

- *Private universities* can develop unique differentiation features by focusing on levels of excellence, by religious/cultural targeting, by providing expertise in specific fields, or by addressing innovative issues in a given context. Given that the gap between education supply and demand is still large across the MENA region, a further expansion of private universities could absorb of the demand for particular types of skill development, while not burdening already constrained public finances. The Université Saint Joseph in Lebanon and the Rabat School of Governance and Economics in Morocco illustrate two examples of the added relevance that private universities can bring to HE in the MENA region (see box 5.3⁴²).

⁴² Based on Karam (2011).

**Box 5.3 Université Saint Joseph (Lebanon) and
Rabat School of Governance and Economics (Morocco)**

- The Université Saint Joseph (USJ), founded in 1875, and one of the oldest francophone HEIs in the Arab world, is a non-profit Catholic institution, i.e., a religious/cultural private HEI that teaches and performs research. It currently has 2,000 professors, 500 administrative staff, and about 12,000 students spread across twelve facilities, one school, twenty-one institutes, three decentralized studies centers, and one hospital. It has over 130 conventions with foreign universities and even opened a law school in Dubai. The USJ boasts post-studies unemployment levels of less than 8 percent, depending on the field of study; in comparison, the national

- *Private specialized post-secondary education* can be particularly relevant for adapting the supply of education supply to a determined market need on relatively short notice. The spread of private institutes in the region, in relatively specific fields, is a reflection of such a response. The Ecole Supérieure Algérienne des Affaires in Algeria and the engineering school Esprit in Tunisia are both illustrations of rapidly growing specialized post-secondary institutions (see box 5.4^{43, 44, 45}).

⁴³ Based on Le Vourc'h (2009); Ben Lakhdar (2011); and on information gathered during an interview at ESPRIT on May 31, 2011.

⁴⁴ <http://www.jeuneafrique.com/classement/business-schools-africaines/index.php>.

⁴⁵ <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/TUNISIAEXTN/0,,contentMDK:22716743~pagePK:1497618~piPK:217854~theSitePK:310015,00.html>.

Box 5.4 Ecole Supérieure Algérienne des Affaires (Algeria) and Esprit (Tunisia)

- The Ecole Supérieure Algérienne des Affaires (ESAA) is a Franco-Algerian PPP business school that started its operations in 2005. Its Board is composed of French and Algerian nationals (each with 50 percent), and state and private sector representatives (also split 50/50). It relies on strong partnerships with renowned French HEIs, and on a double degree program with the University of Lille. Furthermore, internships are an integral part of the training program, and tuition is often paid by companies in exchange for a certain period of employment of the sponsored graduate. In 2009, after less than five years of operation, the ESAA was already ranked the second best business school in Francophone Africa, based on

- *Private post-secondary technical and vocational education and training (TVET) programs can define curricula and choose professors to deliver effective and professional training programs that increase employability more easily than the relatively theoretically-oriented public universities can. Usually very targeted, TVETs respond to a specific (mostly) predetermined need. The Al-Araby Training Academy in Egypt and the Saudi-Japanese Automotive High Institute in Saudi Arabia are two such examples (see box 5.5^{46, 47}).*

⁴⁶ IFC/IDB (2011).

⁴⁷ Additional information can be found at <http://www.sjahi.org/ar/index.php>.

**Box 5.5 Al-Araby Group Training Academy (Egypt) and
Saudi-Japanese Automotive High Institute (Saudi Arabia)**

Al-Araby Group, a large Egyptian company, partnered with a TVET institution to train technical staff. The three year program is a blend of school and actual work, with a strong ownership of the training curriculum by the Al-Araby Group. Upon graduation, employment is guaranteed. In addition to relatively low training costs, the main advantage for the Al-Araby group is that participants are immediately fully operational. The program already receives more applicants than it has spaces for.

- *Training for exams and private tutoring* for students who require additional support following secondary education and before entering HE is more of a niche market, but could represent a growing field in MENA countries, which are often characterized by highly centralized HE systems with standardized entry tests for elite and semi-elite institutions. The main policy question is, however, whether these are not exactly the students who would require public support given a lack of economic means, which could pose an equity issue for the HE system.
- *School-to-work or work-to-work transition training programs* could probably have a very large positive impact on the economies in MENA (IFC/IDB, 2011). Proximity to private companies and flexibility in the curricula as well as in delivery modes make private HEIs good candidates to develop tailored corporate training programs. Many companies around the world have started to create training programs, institutes, or so-called "corporate universities"⁴⁸ to prepare their staff for day-to-day work. These facilitate the integration of new recruits, foster a sense of corporate identity, and explain the specific functioning of a given corporation, its processes, and machineries.

One potential negative consequence of private HEIs is that "non-marketable" courses might be watered down by business and engineering programs if private HEIs are left unregulated. Government regulatory frameworks can motivate private HEIs to diversify their education portfolios or even force them to consider alternative subjects to broaden the education spectrum as a whole.

5.3.3.2 Quality

In addition to equity, the other main concern regarding the development of PHE is its potential impact on education quality. To oversimplify the main argument of PHE critics, if PHE is only concerned with efficiency (i.e., reducing costs and maximizing profits) then this could lead to a "race to the bottom" in terms of education quality. Market defenders argue that any private HEI known to have lower quality standards would lose market shares and eventually be forced out of the market for lack of results. While this may be true in a

⁴⁸ The most famous example is the McDonald's Hamburger University. By 2001, there were over 2,000 corporate universities (CUs) around the globe. For more information, refer to Paton et al (2005).

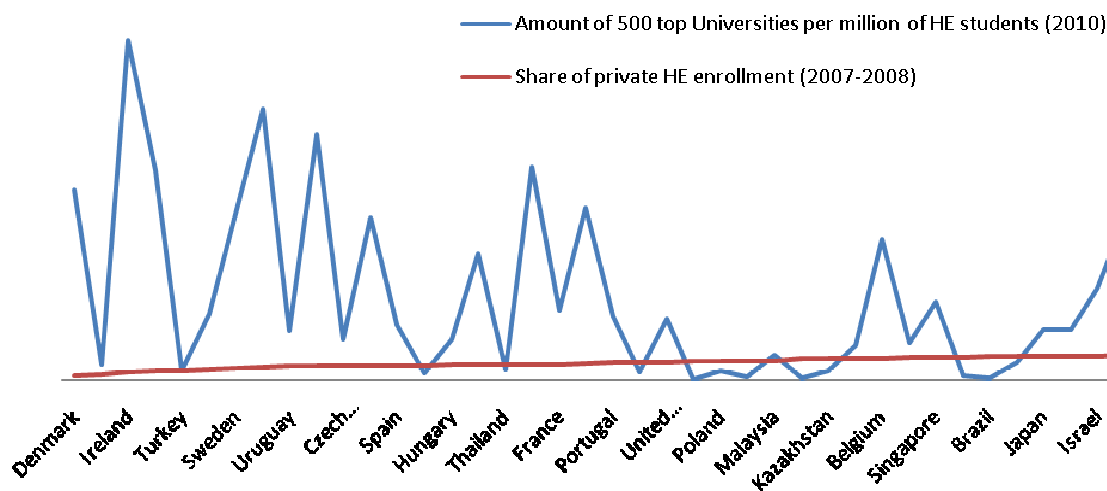
perfectly functioning market, the market failures present in MENA⁴⁹ point to the necessity of setting up adequate regulations, including strong QA systems.

One test of the PHE critics' argument is to compare the share of private providers in a given market to the same market's share of top ranked universities; in the absence of better information, this proxy is used to measure education quality. While the rankings themselves are subject to debate, this comparison could provide a first look at whether markets with a large share of PHE are indeed home to fewer "quality" institutions than markets dominated by public HE. Millot (2011) separately estimated the share of PHE enrollments as a function of two world-famous university rankings, the Times Higher Education Ranking and the Academic Ranking of World Universities. No clear patterns emerged (see figure 5.3). One surprising finding was that both rankings, albeit based on different methodologies and designed in two distinct regions of the world, result in relatively similar country rankings, yet no correlation between PHE enrollment and the share of top universities was found. Therefore, in the absence of commonly accepted criteria for HE quality and of reliable statistical data, it would seem that the quality is not linked to the public or private nature of a given education market.

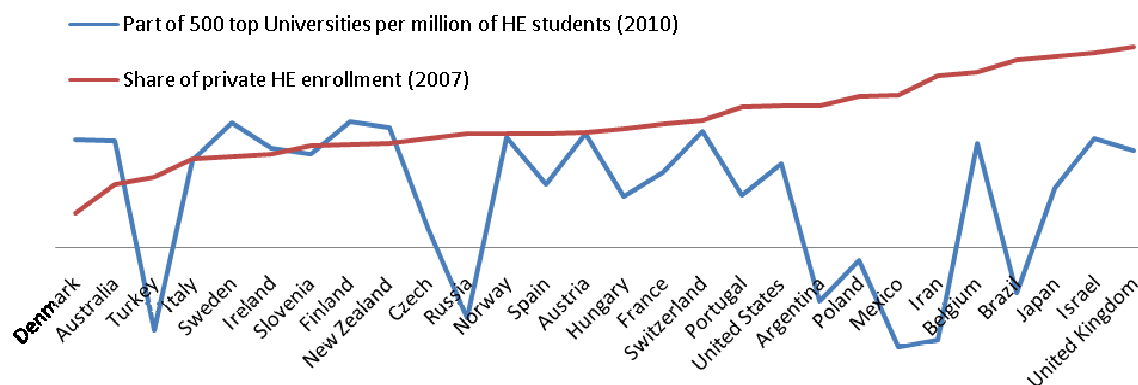
⁴⁹ Please refer back to section 5.1.1.

Figure 5.3 Correlation between PHE and quality

(a) Based on the Times Higher Education Ranking



(b) Based on the Academic Ranking of World Universities



Source: Millot 2011.

A series of regulatory and supervision elements are key to ensuring the quality of both public and PHE provision in: (i) the ways in which HEIs are authorized to operate, i.e., registration, licensing, and accreditation; and (ii) monitoring, QA, and control processes. Lemaitre (2009) emphasizes the importance of refining evaluation criteria depending on the type of HEI: HEIs pursue different goals with different means, so their evaluation should vary as well.

Fielden and Varghese (2009) present a three-stage model for HEI registration and recognition applied in Kenya as one effective model: (i) first, a new HEI is recognized on a temporary basis while it is setting itself up and before the registration process is completed; (ii) next, the HEI is registered, or in other words, its processes are recognized and it can start operating; and (iii) finally, the institution is accredited once its entire processes have been carefully analyzed based on clearly established criteria and quality checks.

At the same time, Fielden and Varghese emphasize the importance of ensuring continuous, transparent, and fair QA processes once HEIs are accredited. A full-fledged QA process controls not only the quality of the delivery but also the financial and operational performance of HEIs. While the latter seems more directly relevant to private HEIs, given the

consumer protection risks involved, it might also apply to public HEIs to ensure that public funds are used in the most efficient way. In MENA, HE QA and control structures have recently been the subject of significant reform. Currently, ten countries in the region have QA committees or dedicated commissions (see table 5.2), while four others were in the process of finalizing them in 2010 (UNESCO, 2010).

Table 5.2 QA bodies in the MENA region

Country	Established	Brief Description
Bahrain	2008	The Quality Assurance Authority for Education and Training (QAAET) is an independent national body attached to the Council of Ministers. The QAAET is responsible for the review of <i>public and private schools, vocational training and higher education institutions for accountability and improvement purposes</i> . ⁵⁰
Egypt	2006	The National Authority for Quality Assurance and Accreditation of Education (NAQAAE) is an independent body, affiliated with the Prime Minister, responsible for all HEI accreditations.
Jordan	1990/2007	The Accreditation Council, created to supervise quality control, define/ adopt/ modify/ develop criteria for private HEI accreditation and monitor implementation was transformed in the Higher Education Accreditation Commission (HENC) in 2007. The latter enjoys financial and administrative independence; the HENC is now responsible for all HEIs.
Kuwait	2000	The Private University Council (PUC) is dedicated to private HEIs and covers all their activities, from creation to accreditation (both of HEIs and new degrees) and quality assurance.
Libya	2006	The Quality Assurance and Accreditation Center (QAAC) seeks to design, develop and implement a comprehensive system of evaluation, quality assurance, and accreditation for national HEIs. Its goals are to achieve the highest levels of quality, efficiency, and excellence.
Oman	2001	The Oman Accreditation Council (OAC), an independent body affiliated with the Higher Education Council, regulates accreditation, evaluation, and quality control of HEIs.
Palestine	2004	The Accreditation and Quality Assurance Commission (AQAC), an independent body affiliated with the Minister of Higher Education, is in charge of all new HEI licensing, program accreditation, and quality assurance more generally. A Quality Assurance Fund has been created to improve the management and quality of HE.
Saudi Arabia	2004	The National Commission for Academic Accreditation and Assessment (NCAAA), a financially and administratively independent body supervised by the Council for Higher Education, aims at controlling the quality of HE and guaranteeing that its outputs meet the requirements of the labor market.
Tunisia	1993	The National Evaluation Committee (NAC) is considered the nucleus of a new Commission of Evaluation, Quality Assurance and Accreditation. As preparatory work for the establishment of the Commission, the NAC launched self-evaluation activities, followed by external evaluations, in all of the country's HEIs in the 2006/2007 academic year.
UAE	2000	The Commission for Academic Accreditation (CAA) is in charge of the evaluation of all private HEIs, periodic annual reviews, and 5-year accreditation of academic programs.

Source: Compilation by the author, mostly based on UNESCO 2010.

5.4 Conclusions

With their own specific attributes and unique value-added, the different actors of PHE can all contribute to the financial sustainability, increased access, and improved relevance and quality of HE systems. Two of the main difficulties are:

⁵⁰ <http://en.qaa.edu.bh/ViewPage.aspx?PageId=10>.

- (i) Ensuring a minimum quality level for all HEIs; and
- (ii) Putting in place measures to guarantee access and minimize inequity.

Governments have a leading role to play through regulation of PHE. While no one response can fit all situations, some best practices for PHE regulation include:⁵¹

- Provision of a sound policy framework for the operation of the private education sector.
- Introduction of clear, objective, and streamlined criteria and processes for establishing and regulating PHE.
- Authorization of for-profit HEIs, while ensuring that QA and other regulatory mechanisms are in place to avoid excesses.
- Authorization of private HEIs to set their own tuition fees.
- Provision of incentives and support for HEIs.
- Provision of information to parents and students to help them select quality private education.
- Establishment of adequate student aid and/or loan programs to widen access and reduce inequity in the system.⁵²
- Implementation of adequate QA and monitoring processes.
- Development of the capacity of governments to implement policy for managing private providers.

Many MENA countries are currently in the midst of introducing reforms that consider expansion of private provision, with all its opportunities and challenges. This chapter has shown how PHE can, in the MENA region in particular, contribute to systemic increases in: (i) financial sustainability, by directly generating funds in fiscally constrained economies and by indirectly enhancing competition that could lead to an increased HE efficiency; (ii) access, as PHE creates more placements and allows enrollment of students who would otherwise not have attended HE; and (iii) relevance and quality of HE.

These gains appear particularly relevant in the context of MENA for at least three main, interrelated reasons: (i) countries in the region mostly operate with strict fiscal constraints;⁵³ (ii) student cohorts are large due to the overall large and growing youth population in MENA, which increases the pressure on HE systems; and (iii) public HE (in)efficiency, and in particular the low school-to-work transition rate, has been subject to widespread criticism over the last decade and has played a role in the recent events across the region.

⁵¹ Mostly based on Fielden and LaRocque (2008).

⁵² Please refer to chapter 3 for an overview of cost-sharing and possible student aid programs.

⁵³ With the notable exception of oil-exporting countries.

Chapter 6: Diversifying Higher Education revenue through philanthropy and endowments: implications for the MENA region

Different modalities used to increase resources to meet fiscal constraints in HE were discussed in the previous chapters. Chapter 3 looked at ways to improve efficiency in the use of public funds; chapter 4 discussed the rationale for cost-sharing; and chapter 5 showed how private provision of HE can help improve access and quality.

While these forms of revenue diversification are critically important, there are practical and political limitations to each, at least as complete solutions to the financial problems plaguing most of the world's public universities and other HEIs. For example, faculty and institutional entrepreneurship can be lucrative for certain high demand programs (e.g., management, computer science, law, and language instruction) in certain institutions or certain facilities, but may do relatively little for the core institutional budgets of a nation's principal public universities.

Another source of revenue merits discussion: philanthropy and donations held as endowments earning current income (Johnstone and Marcucci, 2010). This practice is mainly found in the U.S. and Northern Europe, although a recent EC (2011) report shows that European universities are tapping into philanthropic resources much less than American universities. While three-quarters of them have used philanthropy to fund research in the past five years, the amounts raised have been small, with only six HEIs raising more than EUR 10 million for research on an annual basis (EC, 2011).

Philanthropy and endowments have traditionally been associated with private elite U.S. institutions. However, in the last fifty years, public colleges and universities have also relied on philanthropic support. In part, the increased philanthropic success of public colleges and universities in the U.S. is due to the increased academic selectivity of public universities such as Michigan, Wisconsin, Ohio State, Illinois, Minnesota, North Carolina and the University of California at Berkeley, Los Angeles, and San Diego, and the UC medical campus at San Francisco to name a few. Building on this innovative source of funds seems to be an attractive solution in other regions, especially to political leaders. In fact, in the face of diverging trajectories of higher educational costs and declining governmental revenues, philanthropy is an attractive political solution precisely for what it is not: increased taxes or tuition fees. Equally important, endowments funded by the state in anticipation of a post-oil economy are similarly attractive; they provide a way for rising costs and revenue needs of HE to be shared between taxpayers, families, and endowment earnings.

Chapter 6 examines how U.S. institutions have succeeded in attracting large amount of philanthropic resources. The following questions and associated topics are addressed:

1. What are the principal forms of philanthropic support to HE? Particular attention is paid to: (i) annual philanthropic fund drives directed at alumni, foundations, and "friends," from which most of the net proceeds are spent in current operating budgets or current capital projects; (ii) philanthropic capital campaigns, for building up endowments; and (iii) initial "university creating" gifts and endowment or private foundation funds to provide a stream of operating revenue.
2. What are the legal and cultural factors critical to successful fund raising? Using the U.S. as a model, and providing data on both current giving and the top university endowments, some of the refinements of philanthropy are examined, such as legally enforceable restrictions, the need for contracts between donors and the universities or foundations, and the fiduciary obligations of the governing boards or trustees who are responsible for the investment and appropriate use of the revenues.

3. What is the relationship between taxes and philanthropy? As much of the success in the U.S. is based on favorable tax treatment for philanthropy, standard philanthropic practices designed to lessen the tax burdens of donors are examined, such as the deductibility of charitable contributions from income subject to taxation, the foregoing of capital gains taxes on gifts of appreciated property, the avoidance of estate taxes by bequests, and tax deductible gifts that provide a stream of income to the donor.
4. What are some of the limitations on philanthropy in solving the fundamental financial problems of colleges and universities? Cultural factors critical to successful college and university fundraising are discussed, as are some of the costs associated with such philanthropy.
5. What are the trade-offs between philanthropic giving for operations and philanthropy to build endowments? Some variations on endowments, such as funds functioning as endowments, wasting endowments, and state-owned investment funds (or sovereign wealth funds) that can be dedicated for the future support of universities, are described.
6. What are the key issues of endowment management, such as asset allocation and funding or “take out” policies? How do the most highly endowed U.S. universities address these issues, and what lessons are there for countries contemplating the dedication of large state-owned investment funds, quasi endowments, or sovereign wealth funds for the future support of their universities?

6.1 Building a culture of philanthropy

The first theme examined is how to initiate and then annually increase philanthropy, or voluntary giving, to HE. Higher educational philanthropy includes: (i) seeking regular donations for application to a university’s annual operating budget; (ii) less frequent but more focused solicitation of wealthy donors capable of large donations for capital facilities or other special needs of the university; and (iii) creation of, or additions to, a university endowment, invested to return a steady stream of revenue to the institution (in perpetuity). Successful philanthropy requires, among other things, a culture of voluntary giving to HE; the time-consuming and costly cultivation of alumni and friends to predispose them to donating on a regular basis; the active commitment of university leaders to the cause of fundraising; and the government’s willingness to encourage philanthropic donations through tax advantages to donors as well as matching grants to universities.

Philanthropic support to HE (as to any charitable recipient) is constrained by any restrictions placed upon it by the donor, including programmatic uses to which the funds may be put, and also by the amount of the donation that may be spent each year (ranging from the entire gift to only the income and capital gains from the invested donation). Within the confines of these constraints, the donation can be used by the governing board and the management of the college, university, or foundation according to the needs of the institution and the larger purpose, if any, that underpins the university’s quest for the donation.

Colleges and universities in the U.S. periodically (e.g., every six to ten years) engage in “capital campaigns” in which the objective is to maintain the level of annual donations that the institution’s budget has come to depend on, but also to seek much larger donations, either for special designated capital needs or to build up the endowment. The university governing board and the administrative leaders set ambitious multi-year goals (e.g., for the largest and wealthiest U.S. universities, in the range of USD \$1 billion or more) and may prefer undesignated gifts that the trustees and administration can direct to the areas of greatest need.

But many very large gifts are sought for a restricted purpose, such as funds for an endowed chair in a particular department or facility, which may require USD \$2.5 to \$3 million.⁵⁴

Occasionally, a very large gift may be given to establish a college or university. Such a gift, generally in the hundreds of millions (and more recently, billions) of dollars, will purchase the land and erect the buildings, and may also establish an endowment to cover (even in perpetuity) a small portion of the institution's annual operating budget. Stanford, Duke, and Rockefeller Universities and the University of Chicago in the U.S. were created this way, although in each of these cases, the original gift only created the university, while aggressive fundraising and high tuition fees maintained and enhanced them. A similar example in MENA is King Abdullah University of Science and Technology, which opened in 2009. Bilkent University in Ankara, Turkey, created from the gifts of the Bilkent Enterprises and Foundations of Turkish physician, professor, and philanthropist Dr. Ihsan Doğramici, is another.

6.1.1 Higher Education philanthropy in the U.S.

As philanthropic support is well established and financially successful in the U.S., examples from there are used to illustrate some principles of fundraising as well as endowment management; many are applicable to universities and countries in the MENA region.

In 2010, philanthropy in the U.S. provided USD \$28 billion to public and private colleges and universities, according to the Voluntary Support of Education (VSE) survey conducted annually by the non-governmental, non-profit Council for Aid to Education (Council for Aid to Education, 2011). This level of aggregate philanthropy was in spite of a recession that caused donations to colleges and universities in 2009 to decline by 11.9 percent from the 2008 level, the most lucrative philanthropic year ever recorded for U.S. colleges and universities (USD \$31.6 billion).

Most of the philanthropy in the U.S. goes to colleges' and universities' operating and capital budgets, with much of it in the form of scholarships, new buildings, research, athletics, university hospitals, and the like, making it difficult to determine the effect on core university operations. Clearly, however, many U.S. colleges and universities, public and private, depend heavily on annual inflows of philanthropy, as well as on proceeds from the billions of dollars in their endowments.

Although virtually all U.S. colleges and universities have some form of organized fundraising, very large-scale philanthropic giving in the U.S. (i.e., upwards of USD \$100 million annually) is dominated by colleges and universities with the following characteristics:⁵⁵

- *Selective admissions*, which translates into large numbers of alumni who tend to be prominent, wealthy, and loyal to their colleges and universities (especially to their undergraduate colleges);
- *Venerability*, or long histories of admitting students from elite families, who themselves turn out to be wealthy, and who continue to give annually, as is the tradition and expectation of U.S. upper classes;
- *Large staffs* devoted to the cultivation of alumni, with up-to-date records, mailing and e-mail addresses; research staff to find "lost" alumni and assess their wealth and giving potential; large numbers of carefully tutored volunteers (both current students and classmates of the targeted alumni) to assist in the fundraising; and abundant

⁵⁴ The amount required to yield annually at least a USD \$100,000 salary plus some expenses at a 4.5 % spending rate.

⁵⁵ Some observers would also add *winning athletic teams*, but the evidence for this is mixed.

resources to cover the expenses of printing, postage, entertainment, and events such as class reunions to appeal to alumni.

- *Boards of Trustees*, particularly at private colleges and universities, composed of prominent alumni and leading businessmen and -women, most of whom are expected to give generously annually, as well as to assist in securing gifts from others; and
- *Prestigious faculty who* underlie the prestige and therefore the selectivity of the institution, and who are also able to secure foundation support for their research, which, unlike U.S. governmental research support, is included in the annual VHS surveys of philanthropic giving to U.S. colleges and universities.

Public colleges and universities in the U.S. are now among the leaders in annual philanthropic support as well as in endowments exceeding USD \$1 billion. The attraction of top high school graduates to public flagship universities is also a result of the prominence of graduate and advanced professional programs in medicine, law, and business, as some children are inclined to attend the schools their parents did. Thus public universities, and an increasing number of public colleges as well, have been able to attract academically able and ambitious students to their undergraduate colleges; these prominent wealthy families might formerly have considered only private colleges and universities for their children's education. In addition, soaring costs and revenue needs of public colleges and universities that aspire to selectivity and scholarly prominence, along with the prolonged inability of states to continue funding their public institutions sufficiently, have forced public HEIs to turn to philanthropy to supplement their budgets.

Although the number of institutions conducting annual fund drives has increased dramatically, higher educational philanthropy in significant amounts (i.e., in excess of USD \$100 million annually) remains concentrated in the more elite and selective universities and colleges, both public and private. The top twenty institutions, shown in table 6.1, accounted for more than 25 percent of the USD \$28 billion of philanthropic donations to U.S. colleges and universities in 2010 (Council on Aid to Education, 2010a and 2010b).

Higher educational philanthropy requires building a culture of philanthropy. In addition to the already described activities of giving and volunteering, a philanthropic culture supportive of public HE also requires certain political beliefs, or public policy assumptions, that are quite distinct from mere philanthropic generosity or a high civic value placed on HE. A philanthropic culture associated with public HE requires donors to understand that government revenue actually comes from taxpayers, and that leaving the financial support of HE entirely to the government not only places the entire burden on the average citizen, but also, under most circumstances, leaves HE underfunded.

Table 6.1 Top twenty fundraising universities in the U.S. in 2010

Rank	University	Public/Private	Amount raised (in USD millions)
1	Stanford Univ.	Private	598.89
2	Harvard Univ.	Private	596.96
3	Johns Hopkins Univ.	Private	427.59
4	Univ. of Southern California	Private	426.02
5	Columbia Univ.	Private	402.36
6	Univ. of Pennsylvania	Private	381.59
7	Yale Univ.	Private	380.90
8	New York Univ.	Private	349.21
9	Duke University	Private	345.47
10	Univ. of Indiana	Public	342.82
11	Univ. of California Los Angeles	Public	340.41
12	Univ. of Wisconsin	Public	311.85
13	Cornell Univ.	Private	308.22
14	Univ. of California Berkeley	Public	307.51
15	Mass. Inst. of Tech.	Private	307.18
16	Univ. of Washington	Public	285.22
17	Univ. of California San Francisco	Public	268.90
18	Univ. of North Carolina	Public	266.86
19	Univ. of Michigan	Public	252.10
20	Univ. of Chicago	Private	251.23

Source: Council for Aid to Education 2011.

Almost three-quarters of this funding came from sources other than alumni, including, in order of significance:⁵⁶

- Foundations (30 percent)
- Alumni (25.4 percent)
- Non-alumni individuals (17.6 percent)
- Corporations (16.9 percent)
- Other than religious organizations (9 percent), and
- Religious organizations (1.1 percent)

6.1.2 Limitations, restrictions, and costs associated with Higher Educational philanthropy

Of the total USD \$28 billion in 2010 philanthropy, about USD \$17 billion paid for current operations, and USD \$11 billion funded capital purposes. Although the aggregate data do not reveal the restrictions on philanthropy for operations, much of it is thought to be restricted to student aid, which then reverts to colleges and universities as tuition as well as fees for support of student residences and campus food operations. Since the CAE survey on philanthropy also counts restricted foundation support of research and scholarships (although only from private foundations, not from governmental sources), some of the philanthropy supporting operations pays for specialized equipment, travel, and support staff, and does very little for the institutions' unrestricted operating budgets.

A major limitation of philanthropy is the expense of obtaining it. Successful fundraising "U.S. style" requires the time and dedication of the institution's chief operating or chief executive officer (whether chairman, chancellor, vice chancellor, president, or rector); a full-time professional staff headed by an executive with significant authority, budget, and access

⁵⁶ Council for Aid to Education (2011).

to the CEO; research capability to compile and keep up-to-date lists of alumni, friends, and foundations; and a budget for printing, publications, mailing, travel, and cultivation events.

The costs of fundraising are difficult to determine with accuracy, as they vary with institutional size, sector (public or private), and the scale of the institution's fundraising ambitions and activities. When just beginning, the start-up costs associated with fundraising can take a large percentage of the revenue raised. This percentage will fall over time, as the mailing lists become routine, as the gifts get larger, and as the initial expenses that are oriented to communicating and "friend-raising," begin to generate more substantial funds. Adding to the difficulty of determining the costs of fundraising, colleges and universities in the U.S. do not like to reveal these costs, as donors sometimes resent the fact that a portion of their donation goes back into the fundraising operation itself, and not entirely to scholarships, research, or the institution's operating budget.

The thirty-six U.S. research/doctoral institutions responding to the CAE's 2010 survey reported that expenditures associated with advancement operations broadly included:

- Development and fundraising (52 percent)
- Advancement of services (17 percent)
- Communications and marketing (11 percent)
- General alumni affairs (11 percent) Advancement of executive management (9 percent)

Given these expenses and other funding restrictions, annual philanthropy in actuality provides far less than tuition fees for most private colleges and universities, and less than the combination of tuition fees and state operating support for public institutions.

A political culture supportive of public higher educational philanthropy also understands that government expenditures (including tax deductibility or other tax advantages to contributions) have opportunity costs and that funding HE, while eminently important, is done at the expense of expenditures on other public needs (e.g., elementary and secondary education, economic infrastructure, social welfare, public health, etc.).

Finally, a political culture supportive of public higher educational philanthropy may be tied to acceptance of the imperative for revenue diversification, or governmental revenue supplementation, including the appropriateness of some tuition fees (Johnstone, 2005). This presents a particular problem in most of Europe and the MENA countries, where a belief persists that HE ought to be supported entirely or overwhelmingly either by the general taxpayer, or by the state (e.g., from oil revenues). This belief, although eroding slowly in many European countries, continues despite the facts that: (i) the beneficiaries of free HE belong disproportionately to the middle and upper-middle classes; (ii) students receive enormous personal benefits, including higher lifetime earnings, greater prestige, more options, and other benefits; and (iii) tax revenues in most countries are insufficient to meet the needs of HE.

6.1.3 Favorable tax treatment of philanthropy

Another feature of successful philanthropy is favorable tax treatment of charitable giving. Although tax laws differ among countries, and although governments may be loathe to forego any tax revenues, successful philanthropy can be greatly encouraged by tax advantages. Four forms are especially significant in the U.S.:

(1) The deductibility of charitable giving from income that would otherwise be subject to taxation. This is the standard followed in much of the world. It is effective in countries in which: (i) a significant portion of tax revenue is collected from individual incomes; (ii) tax

rates are high (e.g., 30 to 50 percent); (iii) most incomes (especially high incomes) are known and thus subject to taxation, rather than being easily hidden or otherwise unreported; and (iv) the tax rates are progressive, i.e., falling more heavily on higher incomes. Thus, in a country where high incomes are taxed at a marginal rate of 40 percent, a USD \$100,000 gift to a university reduces the donor's tax liability by USD \$40,000; the university gets the full USD \$100,000; and the donor is credited with giving the full amount. The underlying tax laws and regulations must carefully stipulate (and may need to limit) the nature of the charities that are entitled to receive tax-deductible donations, and tax authorities must have the personnel and resources to ensure that this expensive (to the state) provision is not abused.

(2) *The full deductibility of gifts of appreciated asset value.* Income taxes generally do not apply to assets that appreciate in value until the assets are sold, and then a tax (generally less than the tax on earned income) is applied to the asset's appreciated value. A major tax advantage to philanthropic gifts of appreciated value (e.g., a gift to a university of stock that was purchased by the donor ten years ago for USD \$20,000 and that has since doubled in value to USD \$40,000) is that the donor can claim a tax deduction of the full appreciated value of USD \$40,000, even though no capital gains taxes were ever paid on the stocks. This tax provision effectively bypasses capital gains taxes on gifts of appreciated equities and other appreciated assets, a significant part of the charitable giving of so-called "high worth" donors. The full deductibility of gifts of appreciated asset value is especially beneficial to universities trying to raise large gifts associated with capital campaigns and endowment building.

(3) *Charitable gifts that provide both a tax deduction and a flow of income to the donor.* Another tax advantage that may be attractive to donors is the charitable gift annuity. By making an irrevocable gift to a university, the donor may elect to receive income from that gift as an annuity and may also take a tax deduction at the time the gift is made. The deduction is, in essence, the estimated present value of the gift that will someday go, without qualification, to the university. This provision is attractive to someone who would otherwise include a gift to a university in a will or estate plan, and who prefers to make the gift while still living, but who cannot afford to forego the income that he or she is now getting from the asset. A long remaining life expectancy and a more generous annuity reduce the estimated present value of the gift that ultimately goes to the university, and commensurately reduce the amount of the allowable tax deduction in the year the gift was made.

(4) *Charitable remainder trust (CRT) that provides a variation on the former concept.* This is an irrevocable charitable trust in which the recipient charity acts as trustee of the gift, which may be passed on to a surviving spouse or another heir before going fully to the charity. The donor (and eventually his or her heirs, according to the terms of the trust) receive income and a tax deduction at the time the gift is given, but the university eventually receives a gift. Compared to the charitable gift annuity, the provision for heirs reduces the estimated present value of the gift that ultimately goes to the university and thus commensurately reduces the amount of the tax deduction in the year the CRT is given.

The income tax deductibility of philanthropic contributions, the full deductibility of appreciated capital gains, and other features of the U.S. tax code as it affects philanthropy provide, in effect, a substantial governmental contribution (almost a match) to philanthropic giving. The rationale is that most philanthropy goes to socially worthwhile causes, and takes the place of what would otherwise have to be supported by the government (or taxpayers), so that the philanthropic tax deduction may actually be a more cost-effective way of channeling private wealth into education.

6.1.4 Tapping the MENA diaspora for philanthropic support of Higher Education

A possible source of philanthropy for HE in many middle and low income countries is diasporas, or those individuals who have emigrated to other countries but who continue to identify with the country of their birth. This potential is especially attractive for those countries whose most highly educated young people went to Europe or the U.S. for advanced professional training and either remained or re-emigrated to establish successful businesses and professional practices. The appeal to those in the diaspora can be either that they owe something to the home universities from which they received their first degrees (frequently assisted by government grants), or that they have a chance to assist their home universities and make them better for those who are unable to study in Europe or the U.S.

The potential seems significant. The World Bank estimates that about USD \$400 billion in savings alone is held by the global diaspora (Ratha and Mohapatra, 2011). The report further estimates the savings in the MENA diasporas at more than USD \$42 billion. One problem with initiating diaspora fundraising is the historic lack of culture of philanthropic giving to universities in the MENA region, combined with the fact that many citizens may have received their most significant educational experiences in European or North American universities. But U.S. universities aggressively solicit from international graduates who have returned to their home countries (e.g., China, Taiwan, Korea, India, or Indonesia) and prospered. It would be unfortunate for universities in MENA countries to ignore the philanthropic potential of their graduates who have left and are now financially successful in Europe or the U.S.

Another problem associated with engaging the MENA diaspora is the loss or absence of current contact information: mailing and e-mail addresses, telephone numbers, and personal information, including philanthropic potential. This will be expensive and time-consuming to update, but should be seen as an investment.

A final problem for the MENA diaspora is the lack of tax advantages for philanthropic gifts to a non-profit university or any other charity in another country. However, U.S. law and Internal Revenue Service regulations provide at least two ways for diaspora residents in the U.S., whether citizens or not, to receive a U.S. tax deduction on gifts to a foreign charitable organization such as a college or university. U.S. affiliates of international charities can be chartered as “Friends of ...” organizations and secure U.S. Internal Revenue Service 501(c)(3) public charities designation. These charities are fully tax deductible and can accept and process gifts and grants to be sent to approved non-profit charities in other countries. Examples include American Friends of the Paris Opera, American Friends Service Committee, and American Friends of London Business School. Also, public charities known as “intermediaries” can facilitate direct grants to a charity in another country. A fee associated with this process is charged from the intermediary (not from the program) and is often subtracted from the original grant amount and paid to the intermediary organization.

Given the extent of the Egyptian, Moroccan, Palestinian, Lebanese, Tunisian, and other MENA country diasporas, and the importance of their universities to their countries’ futures, any philanthropy should consider including prominent natives of these countries residing in the U.S. or Europe, as well as prominent Americans and Europeans with business and other connections to these countries. Creation of one or more “Friends of...” charities to transfer tax-exempt contributions to universities or university-related foundations will be essential to facilitate this.

6.2 Management of university endowments

The second theme discussed is the management of and accountability for the invested funds, or endowments, meant to provide a flow of funds into the future (most often in perpetuity).

An endowment is a fund owned or controlled by a charitable entity such as a college or university. The invested assets, as an income producing corpus or foundation, continue to yield money for the philanthropic or charitable purpose into the future, after the initial giving has ceased. In a true endowment, the corpus should last in perpetuity, and only the income earned is spent (e.g., interest, dividends from investments, profits from foundations or endowment-owned properties or businesses, and perhaps a portion of capital appreciation, but never diminishing the real value of the corpus or principal, and preferably allowing some growth of principal to maintain a constant stream of earnings after inflation).

The advantage of an endowment is that the flow of revenues continues, assuming it is invested wisely, without additional investment. The disadvantage of an endowment is that one must raise and commit to the endowment USD \$20 to \$25 for each \$1 that the university is allowed to spend each year. Furthermore, restrictions on some endowed funds may incur other current costs or divert the university from the mission of the governing board and faculty. Given the rising trajectory of university costs and revenue needs, the task of raising more, via current funds or additional endowment, is never finished.

There are three principal endowment policy issues to be established by the owners or trustees of the university or foundation owning the endowment. The first is determining the asset allocation among traditional equities, fixed assets (bonds), and more risky but potentially more lucrative investments such as hedge funds, derivatives, real estate, private equities, and the like. The second is establishing the spending policy: i.e., how much of the endowment's dividends, interest, profits, and asset appreciation can be spent or applied each year to the university's operating budget. The third is portfolio management: determining how to invest the assets of the endowment within the parameters established by the asset allocation. These three issues are examined next.

6.2.1 Asset allocation

Most university endowments in the U.S. were traditionally held in the form of U.S. securities, or dividend producing equities, and in fixed-return assets such as bonds. More recently, university endowments have shifted towards other forms of assets that are less safe but promise to produce greater returns over time. Such alternative assets include foreign and private equities, derivatives, hedge funds, income-producing real estate, and real estate or other assets that do not produce income currently but that appreciate in value (and thus can provide collateral for a loan, or be borrowed upon for current revenue if needed). In theory, endowment assets could even include businesses, the sole owners of which, and the only entities that can profit from the business, would be the non-profit universities or their foundations.⁵⁷

Small college and university endowments in the U.S. (i.e., those less than USD \$50 million) tend to be invested conservatively, concentrating asset allocation in U.S. securities and fixed assets. Larger endowments, however, reveal the trend toward investment in "alternative assets" that are less liquid and feature greater risk, but that may produce substantially greater returns. For U.S. colleges and universities with endowments greater than USD \$1 billion, the

⁵⁷ If a philanthropist should donate a business, or even an income-producing property such as an apartment house, to a college or university in the U.S., the governing board of the institution or affiliated foundation will almost certainly sell the property as soon as possible and then invest the proceeds from the sale in equities or other investment grade assets. This is not the case in some other countries, where universities or their affiliated foundations routinely own businesses and other revenue producing assets.

Annual Survey of College and University Endowments by the National Association of College and University Business Officers (NACUBO) and the Common Fund Institute showed an asset allocation in 2010 of 11 percent in domestic equities, 15 percent in international equities, 10 percent to fixed income assets, and 60 percent to alternative strategies, leaving 4 percent to short term securities and cash (NACUBO-Comofund, 2011). Similarly, Cambridge Associates (the largest U.S. endowment advisory firm) reported that for endowments greater than USD \$1 billion, asset allocations in U.S. securities dropped from an average of 46.2 percent of endowment portfolios in 1996 to only 14.8 percent in 2010. Allocations to bonds similarly dropped over the same time period, from 24.2 to 11.1 percent. In the meantime, holdings in marketable alternative assets, including hedge funds, event arbitrage, arbitrage, distressed securities, and market-neutral hedge funds increased from 5.2 percent in 1996 to 24.8 percent in 2010. Table 6.2 shows the shift in asset holdings of U.S. university endowments with total assets greater than USD \$1 billion.

Table 6.2 Change in percentage asset allocation in U.S. college and university endowments of more than USD \$1 billion

Form of Assets	1996 (% change)	2003 (% change)	2010 (% change)
U.S. equities	46.2	33.7	14.8
Bonds	24.2	18.5	11.1
Global equities (excluding U.S.)	13.0	13.4	16.8
Private equities	1.2	4.6	10.3
Hedge funds and other marketable alternatives*	5.2	17.2	24.8
All other**	10.2	12.6	22.2
Total	100	100	100

Source: Cambridge Associates 2011.

Note: *Includes macro and market neutral hedge funds, distressed securities, and arbitrage.

**Includes public and private real estate, oil and gas, timber, commodities, and cash.

6.2.2 The spending policy

The second policy issue for the trustees or governing board of the endowment is to determine how much of the yearly income from dividends and interest, together with the some portion of the annual capital appreciation, to retain in the endowment to maintain the real value of the principal amount and how much to spend. Advanced industrial economies can expect to grow at 2.5 to 3.5 percent a year in real terms: that is, 2.5 to 3.5 percentage points ahead of the percentage rise in prices generally, or the prevailing rate of inflation. Professionally managed investment funds, like endowments, in such economies can expect to do somewhat better, perhaps 4 to 4.5 percent greater than the prevailing rate of inflation. This might be higher with a large fund that is aggressively managed (e.g., heavy on alternative investments) or lower with smaller funds that are more conventionally managed (e.g., heavy in bonds and domestic large cap equities). The spending policy should be designed to balance the endowment's asset allocation policy (i.e., its tolerance for risk and the aggressiveness of its investment management) with the institution's need for immediate revenue and its tolerance for risk (i.e., the degree to which the financial health of the university would be damaged in a recessionary decline in aggregate endowment values).

Institutions with large endowments tend to rely more on spendable revenue for critical university operations (e.g., for endowed professorships) than do less endowed institutions. Such institutions also tend to have more aggressive asset allocation policies and are thus more vulnerable to downturns in the economy and in the value of their invested funds. Thus college and universities with endowments in excess of USD \$1 billion tend to have higher spending

rates, especially in years when the endowment's value has declined and the institution needs the revenue to maintain operations.⁵⁸ The NACUBO 2010 endowment study reported that institutions with endowments in excess of USD \$1 billion raised their average spending rates from 4.6 to a full 5.6 percent between 2009 and 2010; in comparison, those institutions with the smallest endowments (i.e., under USD \$25 million) actually lowered their spending rates from 3.9 to 3.5 percent (NACUBO-Comofund, 2011). As a general rule, U.S. college and university endowments have ranged between 4.3 and 5.0 percent for most of the last decade (NACUBO-Comofund, 2011).

Another feature of an endowment spending policy is the stipulation of the endowment asset value to which the spending, or "take-out," rate is to be applied. To provide a cushion from the volatility of portfolios (especially ones that have been aggressively managed), many spending policies apply the rates to a "lagging average" such as the average of the prior two or three years. But there are many variations on the combination of base plus rate, as reported in the 2010 NACUBO survey. Of the sixty institutions reporting endowments in excess of USD \$1 billion, forty-nine of them (82 percent) employed some sort of established percentage rate applied to a lagging average; eighteen (30 percent) used last year's dollar spending plus inflation (with upper and lower bounds). Eight institutions reported setting a spending rate each year, and two reportedly spent all available current income from the endowment (NACUBO-Comofund, 2011).

Most institutions, however, especially those for which endowments constitute a significant portion of their annual budgets, need policies established by the governing board of the institution to enable institution managers to predict revenues and thus plan accordingly. Equally important, the governing board needs to establish a spending policy that is best for the institution's long run objectives and that provides a bit of financial discipline. In other words, the spending policy should not be excessively driven by short term needs for revenue.

6.2.3 Portfolio management

After establishing asset allocation and spending policies, the owners of the endowment must decide how to manage the portfolio: that is what to buy, sell, and hold within these parameters. For a very small endowment, such decisions may be made by a committee of the trustees, or the legal owners of the endowment, at least some of whom will usually have some experience in cash management and investing. However, to avoid appearances of conflict of interest or other liabilities that might arise from making of investment decisions, most large endowments are entrusted to one or more professional investment managers, who abide by the trustee-established policies on the proper asset mix, but are free to invest to maximize the growth of the endowment over time.

Governing boards or trustees may be aided by investment advisors, who do not themselves participate in the actual investment management decisions but provide knowledgeable and unbiased assistance to endowment owners in the selection and performance assessment of investment managers (Kershaw, 2011).⁵⁹ Universities in the U.S. with the largest endowments (i.e., in excess of USD \$10 billion) may set up wholly-owned private investment management corporations. The governing board retains authority over the policies on asset allocation and spending, but delegates critical investing decisions to an internal, but

⁵⁸ Private communication on April 11, 2011 with Jane Mendillo, Chief Executive Officer of Harvard Management Company.

⁵⁹ For information on the kind of investment advice that one of the largest of the U.S. investment advisory firms might be able to provide to either a capital campaign or a university endowment, or see Cambridge Associates' website at <https://www.cambridgeassociates.com/about_us/index.html>.

corporately separate, investment management firm. Management of a USD \$10 billion endowment requires talented, well-compensated professionals with diverse experience, e.g., those in international equities, private equities, hedge funds, real estate, and other alternative forms of asset management. Maintaining this talent in-house, but corporately distinct, allows the university to pay salaries and apply employment policies that would not conform to the university's normal personnel policies, but that are required to retain sophisticated financial operations staff. Box 6.1 describes one example of a wholly-owned investment portfolio management company, the Harvard Management Company, which manages most of Harvard University's USD \$27.6 billion portfolio.⁶⁰

Box 6.1 Harvard Management Company

Harvard's endowment was reported to be USD \$27.6 billion as of June 30, 2010, but reached more than USD \$36.5 billion in 2008 before the market crash of that same year. The endowment is managed by Harvard Management Company (HMC), a private, non-profit, wholly-owned subsidiary of Harvard University. HMC is thus owned (in trust) by Harvard's corporate governing board, The President and Fellows of Harvard University. As a tax exempt private non-profit corporation, it is limited in the kinds of activities in which it can engage, and manages only the endowment of Harvard University (and a few small affiliated trusts). HMC is governed by a board chaired by the Harvard Treasurer, which appoints the chief executive officer and the major officers and sets the asset allocation and spending policies. HMC actively manages about one-third of the assets in the endowment, principally the fixed income assets and most of the publicly-traded domestic securities, and contracts the rest to outside managers, including most of the alternative investments in hedge funds, real estate, and private equities. As the market value of the total endowment rose dramatically through the 1990s until 2008, the spending policy was lowered to between 3.5 and 4 percent. After the precipitous decline in 2008-09 the spending policy was raised to between 5.5 and 6.0 percent but with the market

6.2.4 Public university endowments

A college or university must be a "legal person,"⁶¹ rather than a mere "agent of the state" to make legally enforceable contracts as required by philanthropic gifts. Therefore, public colleges and universities in the U.S. that are not public corporations need to establish associated private foundations to receive charitable donations, to carry out the wishes of the donors, and to own the assets given as endowment. These affiliated non-profit corporate foundations are linked to the governing board of the public institution (or in some way to the government or appropriate ministry) and also to the president or rector of the institution, who may serve on the foundation board *ex officio*. The foundation, however, is managed separately, and is generally free from the state or university's personnel policies and other restrictions.

The affiliated foundation, as a non-profit corporation and like the governing boards of private universities, establishes the asset allocation and spending policies. Also like the governing boards of most private colleges and universities, the board of the affiliated foundation

⁶⁰ Harvard Management Company <http://www.hmc.harvard.edu/investment-management/index.html>.

⁶¹ That is, a private non-profit or public corporation that can execute legally enforceable contracts, hold and dispose of property, and sue and be sued.

generally contracts one or more professional portfolio managers and possibly a professional investment advisor who do not buy and sell assets, but who advise the governing board on asset allocation and spending policies, and assist in the selection of one or more professional investment managers. However, a very large public university endowment foundation may establish its own investment management corporation to do all or most of the actual buying and selling within the foundation's asset and spending policy parameters. The University of Virginia, one of the most heavily endowed U.S. public universities, is one such example. The asset allocation, the spending policies, and most of the actual investment management are carried out by the University of Virginia Investment Management Company, which is a separate (from the university) non-profit, State of Virginia non-stock corporation governed by a Board of Directors, three of whose members are chosen by the University's Board of Visitors (the university governing board) and one by the president of the university.⁶²

6.2.5 Other forms of endowment

While most endowment assets conform to the governing board or trustee's asset allocation policy (as in domestic or international equities, fixed assets, alternative assets, and the like), there are some variations, such as:

- *Income-producing real estate or businesses as endowments.* It is not uncommon for a major gift to be in the form of income-producing real estate or business. The practice at most colleges and universities in the U.S. would be to sell such assets as soon as practicable and add the proceeds from the sale to the endowment portfolio, under the theory that neither the institution's trustees nor its administration have the experience or time to manage a business, apartment complex, or farm.
- *College or university facilities as endowments.* Similar to a true endowment, a philanthropic gift can be in the form of land, buildings, or even expensive scientific equipment that will not last in perpetuity, but may last a very long time.

Similarly, while most endowments or endowed funds are meant to be invested to yield annual income in perpetuity, there are some exceptions:

- *A wasting endowment.* Sometimes a donor wants his or her donation to be spent out over a set number of years. Sometimes referred to as a wasting endowment, such a gift can provide a larger sum of annual operating revenue to the charitable cause than can a true endowment, in which the trustees have an obligation to preserve the real value of the principal and hence have less to spend annually. The wasting endowment, in contrast, can spend a more substantial portion of the principal, or corpus, each year, in addition to the earnings from interest and/or dividends.
- *Reserves functioning as endowment.* Finally, institutions that are essentially philanthropic but that also take in revenue either from new philanthropy or from fees, such as non-profit universities and hospitals, may frequently run annual operating surpluses that go into reserves. There is no legal obligation for reserves to be spent for any particular purpose, or to be husbanded in perpetuity as with a true endowment. At the same time, they may be invested and co-mingled with the true endowment, even with the objective to build up the endowment, and may be treated as though the reserves were true endowment.

6.2.6 University endowments in the U.S.

⁶² See the University of Virginia Management Company <http://uvm-web.eservices.virginia.edu/public/>.

Although endowments at U.S. colleges and universities are still recovering (as of early 2011) from the precipitous declines in asset values after 2008, there were about 370 colleges and universities in the U.S. with endowments of more than USD \$100 million in 2010, and sixty with endowment assets of more than USD \$1 billion (NACUBO-Commonfund, 2011). Table 6.3 shows the largest U.S. university endowments in 2008.

Table 6.3 Top twenty endowments of U.S. universities in 2008

Rank (2008)	University	(Public/Private)	Endowment (in \$ 000s)
1	Harvard Univ.	Private	\$36,556,284
2	Yale Univ.	Private	22,869,200
3	Stanford Univ.	Private	17,200,000
4	Princeton Univ.	Private	16,349,329
5	Mass. Inst. Tech.	Private	10,068,800
6	Univ. of Michigan	Public	7,571,904
7	Northwestern Univ.	Private	7,243,948
8	Columbia Univ.	Private	7,146,806
9	Univ. Texas (Austin)	Public	6,895,038
10	Univ. of Chicago	Private	6,632,611
11	Texas (A&M) Univ.	Public	6,259,791
12	Univ. of Pennsylvania	Private	6,233,281
13	Notre Dame Univ.	Private	6,225,688
14	Duke Univ.	Private	6,123,743
15	Emory Univ.	Private	5,472,528
16	Univ. of Washington	Private	5,350,470
17	Rice Univ.	Private	4,610,164
18	Univ. of Virginia	Public	4,572,613
19	Cornell Univ.	Private	4,416,095
20	Dartmouth Univ.	Private	3,360,159

Source: National Association of College and University Business Officers 2009, as modified by Capaldi and Lombardi 2010.

Note: Public university system data are reported only for the flagship university campuses.

6.2.7 Limitations of philanthropy in support of Higher Education

There are limitations to endowments as well as to annual philanthropic contributions even in the U.S. For example, the highest endowments are mainly concentrated in elite institutions, both public and private. These institutions are characterized by very large numbers of very wealthy alumni, whom the institutions assiduously court after their graduations. But for most HEIs, especially U.S. public colleges and “second tier” universities, whose alumni are not usually as wealthy and who have not been so aggressively courted, philanthropy can be a costly struggle. Furthermore, philanthropic revenues may be quite significant on the margins of growth, but their percentage as a share of the total operating budget, even at successful philanthropic institutions, remains quite small.

Additionally, both endowments and annual giving are frequently restricted, and do not necessarily go to operations that the institution might pursue in the absence of restrictions. Philanthropy can, in some instances, divert money from other pressing educational needs or even distort a university’s mission, if the scholarly and teaching programs become altered to make the program more attractive to potential donors. Finally, philanthropy is expensive. It takes money to raise money, particularly at the start. In short, philanthropy is not without some downsides, nor is it likely to become a truly significant revenue source for most universities in most countries.

In an international context, while philanthropy seems to be an attractive solution to increase funding for universities, to be successful, higher educational philanthropy requires large numbers of extremely wealthy alumni or friends who will give to a university, as well as a political culture supportive of giving to public HE, rather than exclusively to private education. These features may not exist in all countries. Ultimately, philanthropy can play an increasing role in financing HE in virtually all MENA countries. However, its role will remain limited for most institutions in most MENA countries for the near future.

6.3 A state investment or sovereign wealth fund dedicated to university operations

The third theme is related to the management of an endowment using a state-established quasi-endowment, such as a dedicated sovereign wealth fund, for the long-run financial support of one or more of the country's universities. The issues for state-owned or sovereign investment funds dedicated to the maintenance of a country's universities are limited mainly to those of asset allocation and effective investing to balance the need for long-run growth with prudent risk management. These are not unlike the issues involved in a state-run pension fund.

Special reserve funds, held for long-term growth, as opposed to official reserves held for pensions or for currency stabilization, are sometimes termed sovereign wealth funds (SWF) (Teslik, 2009; Mezzacapo, 2009). The distinction between traditional currency reserves, state pension funds, and SWFs is not precise. However, SWFs have in common with large university endowments an orientation to equities, diversification into five or six different asset classes, few liquid assets, and increased holding of alternative assets such as real estate, private equity, and hedge funds (Swensen, 2000). Total SWFs under management in 2009 were estimated at USD \$3.8 trillion, with the largest SWFs in the MENA/Gulf State region in the United Arab Emirates, Kuwait, and Qatar (Committee on Global Thought, 2010).

6.3.1 Similarities and dissimilarities of SWFs to private non-profit endowments

The assets of a state-owned investment fund dedicated to the future support of some or all of a country's universities could be restricted similar to the way that endowment spending is restricted: e.g., allocated to particular universities, facilities, or programs; or to capital as opposed to operating purposes; or to a particular spending policy, including provisions for allowing changes given changes in circumstances. The main difference between the legally enforceable restrictions on privately-donated endowments and a state-created, state-owned SWF dedicated to one or more universities lies in the seeming vulnerability of the latter to changes in the financial and political goals of a particular country. However, this is not unlike the potential vulnerability of a state-owned and state-controlled pension fund. Thus a state contemplating SWF to function as a university endowment can, at least in theory, choose the specific restrictions on these funds as well as the degree of stability or relative inviolability within the authorizing law. Three models illustrate the conceptually different degrees of retained state control over a dedicated SWF, and thus different degrees of protection from a future diversion of dedicated funds.

At one extreme, the governing entity of an existing SWF could theoretically dedicate the entirety or a portion of a SWF to the future support of one or more universities, possibly with no new authorizing legislation required. This appears to be the case in Saudi Arabia, where the lavishly endowed international King Abdullah University of Science and Technology

(KAUST) was created. However, KAUST was created solely to compete with other world class universities and to draw top graduate students and academics from around the world to a truly modern, internationalized, English language university. It was not created with any thought to providing a model for endowment financing of Saudi universities generally, or with an eye towards financing education in a post-oil future. Therefore, while KAUST gives some indication of the cost of such a venture, it does not provide a useful model for the concept of sustainable SWF financing for HE.

A second model is one in which a country with substantial current sovereign wealth designates a portion of that wealth to endowing HE in the future. This is similar to long-range governmental planning for the future financing of any component of a country's public sector, whether defense, internal security, basic education, HE, or public health. Furthermore, even for intended dedication of the proceeds of a SWF to HE, there needs to be identification of the specific colleges or universities to receive the revenues, determination of how much revenue would go to each designated institution, and establishment of the roles of the Ministries of Finance and Higher Education in the allocation of such revenues. As public funds are essentially fungible, intended dedication would not in itself provide any significant financial protection to the universities in the event of a future decline in public revenues, nor would it provide an incentive to encourage the universities to seek other income, such as philanthropy, tuition and other fees, or external grants and contracts.

Box 6.2 King Abdullah University of Science and Technology (KAUST)

KAUST is a new (opened in 2009), richly endowed Saudi university, located in Thuwal, Saudi Arabia, and created in partnership with prominent U.S. universities. In 2010, KAUST offered eleven graduate level (master's and Ph.D.) programs in three divisions: Chemical and Life Sciences and Engineering, Mathematical and Computer Sciences and Engineering, and Physical Sciences and Engineering. Instruction is in English, and women freely share classes with men and are not required to be veiled. KAUST is a non-profit university governed by a twenty member self-perpetuating board, chaired in 2010 by the Saudi Minister of Petroleum and Mineral Resources, and including members of the Saudi Royal family, other Saudi ministers, chief executive offices of both Saudi and international oil and investment companies, and distinguished international academics, including presidents or former presidents of Princeton and Cornell Universities in the U.S., and the president of Shanghai Jiao Tong University in China. There are no tuition fees, and all students receive cost-of-living stipends. The financing of KAUST has not been fully revealed, but clearly came from one or more of the Saudi SWFs. The *New York Times* in 2009 at the time of KAUST's opening, reported KAUST's sovereign wealth endowment to be USD \$10 billion, but the effective endowment is rumored to be far in excess of that amount.

Source: KAUST Website (<http://www.kaust.edu.sa/>); *New York Times*, 2009.

More significant protection could be afforded with legislation explicitly dedicating all or a portion of a SWF to the future financial support of the state's selected colleges and universities. As with a state pension fund, such a dedication would probably not be inviolable, but would be more secure than in the first model, in which the dedication of the country's aggregate sovereign wealth in reserve occurred without specific legislation.

At the other extreme, a third model exists whereby there is an actual transfer of ownership of funds from a SWF to a non-profit foundation, chartered by the state to benefit selected institutions and under the trusteeship of a governing board; this would be at least partially

removed from the government and would provide more significant protection to the financial future of selected colleges and universities.

6.3.2 Making the special case for Higher Education

Although these models are hypothetical, with the exception of KAUST, it seems unlikely that a government in the MENA region or anywhere else would abandon the right to allocate the proceeds from its SWF in the future in whatever way it deemed best for the nation at that time. Although HE in all countries is regarded as a critical public investment worthy of support, the claim of any public need (e.g., basic education, scientific research, public health, public infrastructure, national defense, or care for the poor or the elderly) has to be judged at the margin (that is, evaluating the need for additional resources) and weighed in comparison with all other competing claims. It is not obvious that HE's case for special dedication of a substantial portion of a country's current sovereign savings is more important than any other public need.

6.4 Conclusions

Based on the discussion in this chapter, some conclusions regarding the potential for philanthropy and endowments to play a significant, beneficial role in the future financing of HE in the MENA region are:

1. Philanthropy is an option for additional revenue for HEIs, and is an important funding source for public and private universities and colleges in the U.S. Although not currently used in MENA, given the successful experience of the U.S., the concept of philanthropy seems to be worth exploring in the region.
2. Building a culture of philanthropy is expensive and needs to be considered an investment. It requires: a culture of giving to HE (which some MENA cultures consider the responsibility only of the government); up-to-date information on alumni and other potential donors, including current contact information and estimates of giving potential; and the time and resources to engage in the necessary cultivation of prospects. Small donors can become large donors, and even those who will never be able to give a large donation in their lifetimes may be induced to make a bequest in their will or estate plan.
3. Philanthropy, whether broad-based or targeted at a few affluent donors, is greatly helped by tax advantages. Accepting that foregone taxes are a suitable governmental expenditure is necessary.
4. Endowments are gifts not to be spent but invested. The non-profit governing boards of universities or affiliated foundations acting as trustee owners of the endowment have a fiduciary responsibility to invest the principal carefully and to honor all restrictions placed upon the gifts that have been entrusted to their care. This includes gifts made long ago and for which there may be no known descendants or other directly interested parties.
5. Trustee owners of endowments have three basic duties: (i) to establish an asset allocation policy; (ii) to establish a spending rate that will preserve the real (i.e., inflation adjusted) value of the corpus, and provide a constant stream of revenue to be spent; and (iii) to manage investments, a duty often contracted out to professional investment managers.

6. A country that holds large investments in reserve (i.e., more than is required for normal currency stabilization or the provision of pensions) may consider dedicating SWFs to serve as endowments for the partial support of selected universities and other institutions of HE. Such funds will continue to be owned by the state (under the trusteeship of key ministers and central bankers). The assurance of a source of revenue not subject to the politics of annual governmental budget-making may assist in a university's management and planning, as well as in its quest for other non-governmental sources of revenue.
7. In the MENA region, there seem to be individuals of sufficient wealth who appreciate the centrality of HE to their countries' futures and who can encourage colleges, universities, and governments to develop philanthropy as a consistent stream of revenue to HE. Although philanthropy should not replace reliance of HEIs on an appropriate share of annual governmental budgets or be considered an alternative to cost-sharing, it should be recognized and cultivated as a potentially significant source of revenue.

Chapter 7: Summary and recommendations

The recent financial crisis has triggered financial challenges for HE systems worldwide. Unit costs in HE, as in other labor intensive activities, tend to rise at the rate of labor (faculty and staff) compensation, which in most cases increases at a rate higher than inflation. Keeping up with the pace of increased unit costs while student enrollment is increasing is a challenge, as is improving quality and relevance of services provided. Universities today need to take into account other cost increases associated with: (i) technology, which in HE tends not to lower costs (by substituting capital for labor and driving down unit costs as in other sectors), but to increase them; (ii) introduction of new programs (almost always at a rate faster than old programs, with their faculty and staff, can be shed); and (iii) the already high and rapidly increasing costs of research.

Overall, MENA countries' expenditures on HE as a proportion of GDP are high, and higher still on a GDP per capita basis, despite the fact that expenditures on R&D are quite low compared to OECD countries. All MENA countries are challenged with absorbing large numbers of secondary school graduates. They need to build critical masses of high skilled workers to enhance their technological capacities and to move up the value-added chain to better compete in international markets. To meet the expansion, quality, and relevance goals required by tertiary education institutions, more funding is needed.

The costs and revenue needs of HE in most countries in the MENA region will increase annually at rates considerably above the annual rates of inflation. In all but a few of the oil-rich countries, these needs will be difficult, if not impossible, to satisfy with government revenues. Finding additional public resources to meet the demands of HE is unlikely, given the fiscal constraints. Therefore, non-governmental revenue from tuition and other fees, university entrepreneurial activities, external grants and contracts, the private sector, and philanthropy are all needed to meet the surging revenue needs of universities and other institutions of HE in MENA.

Governments of countries with limited fiscal revenues need to decide between difficult policy options:

- *Change the growth dynamics of the student population.* However, few countries in the MENA region are likely to limit the quantitative development of their HE systems, since most have decided to invest extensively in human capital as a core element of their growth strategy.
- *Increase public resources through augmented financial participation of students and their families.* In a country where the tax base is limited or when the government is concerned with equity issues, having the beneficiaries (i.e., students and their families) contribute to their financing makes sense. To avoid the equity issues that emerge from tuition fees, student aid programs need to be established. Student loans targeted towards students from low socio-economic backgrounds are essential to broaden access to education either when the share of students in private universities is high or when public universities charge significant fees.
- *Foster the development of a private supply of HE,* which could lead to a dual system that is potentially less costly for a government than a fully public system without tuition fees or cost-sharing. The private supply of HE will likely grow faster than the public supply in the next few years in MENA, leading to an increase in average tuition fees paid by students and their families. Even public universities will likely try to find additional

private resources, either through direct contributions from the private sector or through direct or indirect tuition fees in selected trainings.

- *Spend resources in a more cost-efficient way.* Linking funding to performance can be done through performance-based contracts, competitive funds, or any form of results-based funding. Developing financing strategies that are carefully designed to meet either expansion, quality, relevance, or equity related goals is critical. Some financing mechanisms are more suitable for certain policy goals:
 - Demand-driven tools are used to increase HE access. These include vouchers, means-tested grants, need- and merit-based scholarships, tuition fee offsets, and family allowances.
 - Targeted funds can promote equity through demand and supply funding. Instruments include:
 - Demand-side tools such as vouchers, means-tested grants, need- and merit-based scholarships, and family allowances.
 - Supply-side tools such as categorical/earmarked funds, priority-based funding formulae, and payments for results.
 - Linking funding (of institutions and students) to performance can boost quality and relevance. Instruments of choice include merit-based scholarships, priority-based funding and output-based formulae, performance set-asides, performance contracts, payments for results, and competitive funds.
- *Provide incentives to help to increase private donations or build private endowments for universities.* Philanthropy has the advantages of not requiring new taxes, not diverting faculty from core teaching and research activities, and not having to confront political opposition to tuition fees. Philanthropy and endowments have been traditionally associated with private elite U.S. institutions; in the last fifty years, however, public colleges and universities have also relied on philanthropic support. Although not yet well developed in the MENA region, building on this innovative source of funds seems attractive, especially to political leaders. The potential to tap into MENA diasporas to build such initiatives is significant. Savings in the MENA diasporas are calculated to be more than USD \$42 billion. Some of this could be used for philanthropic contributions to MENA universities.

While the above options are individually important, the overall strategy and mix of policies and instruments and their suitability in a given context, relative to a nation's goals, matter most. In the specific context of the MENA region, HEIs themselves have already taken short-term measures to minimize budgets, e.g., by replacing qualified full time faculty with part-time faculty, increasing class sizes, and delaying investment and necessary infrastructure and material refurbishments. Such measures have temporarily eased the financial burden, but will likely represent larger expenses later to compensate for the further degradation of study conditions, and the quality of education offered. Tertiary education institutions need to be ready to produce graduates with the skills required by today's world. This implies developing cognitive, behavioral, social, and technical skills aligned with the rapid changes of globalization. These are important demands of young people in Arab countries that MENA governments need to address seriously and systematically.

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