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. 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).

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1 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.
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

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

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.²

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 tuition fees.

² 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.
registration fees, apart from a few “parallel 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 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

<table>
<thead>
<tr>
<th></th>
<th>Low income households</th>
<th>Lower MI households</th>
<th>Upper MI households</th>
<th>High income households</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option 1: Means-based tuition fees</strong></td>
<td>0 / 0 / 0</td>
<td>500 / 0 / 0</td>
<td>1,000 / 0 / 0</td>
<td>1,500 / 0 / 0</td>
</tr>
<tr>
<td><strong>Option 2: Uniform tuition fees + variable bursaries</strong></td>
<td>1,500 / 0 / 1,500</td>
<td>1,500 / 0 / 1,000</td>
<td>1,500 / 0 / 500</td>
<td>1,500 / 0 / 0</td>
</tr>
<tr>
<td><strong>Option 3: Uniform tuition fees + income tax + bursaries</strong></td>
<td>500 / 0 / 500</td>
<td>500 / 0 / 0</td>
<td>500 / 500 / 0</td>
<td>500 / 1,000 / 0</td>
</tr>
<tr>
<td><strong>Total cost for the household</strong></td>
<td>0</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
</tr>
</tbody>
</table>

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, \(^3\) 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 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.

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\(^3\) As reviewed in chapter 2 of this report and in World Bank (2008).
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 system\(^4\) 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 (Meliño 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).

\(^4\) 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

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

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 intermediation 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. 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 baccaulaureat (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 expanded 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.

5 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. 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.7

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, 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

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6 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.”

7 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.
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 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 scheme 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, 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 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

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8 See www.nsfas.org.za for details.
9 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.
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. 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 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

<table>
<thead>
<tr>
<th>Option</th>
<th>Year N</th>
<th>N+1</th>
<th>N+2</th>
<th>N+3</th>
<th>N+4</th>
<th>N+5</th>
<th>N+6</th>
<th>N+7</th>
<th>N+8</th>
<th>Total cost for the state (A)</th>
<th>Share of the cost paid by the state. Option 1: discount factor=5% (B)</th>
<th>Share of the cost paid by the state. Option 2: discount factor=10% (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal public cost of studies (positive values mean a positive cost for the state)</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) All HE costs paid cash by students</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.0</td>
<td>0.0%</td>
</tr>
<tr>
<td>2) All costs paid by student, zero-interest-rate loans for 25% of the population</td>
<td>25.0</td>
<td>23.8</td>
<td>22.7</td>
<td>-10.3</td>
<td>-9.8</td>
<td>-8.9</td>
<td>-8.5</td>
<td>13.9</td>
<td></td>
<td></td>
<td>4.9%</td>
<td>8.6%</td>
</tr>
<tr>
<td>3) All costs paid by student, zero-interest rate loans for all students</td>
<td>100.0</td>
<td>95.2</td>
<td>90.7</td>
<td>-43.2</td>
<td>-39.2</td>
<td>-35.5</td>
<td>-33.8</td>
<td>55.8</td>
<td></td>
<td></td>
<td>19.5%</td>
<td>34.2%</td>
</tr>
<tr>
<td>4) Half of costs paid by students, zero-interest loan only available for 25% of the population</td>
<td>62.5</td>
<td>59.5</td>
<td>56.7</td>
<td>-5.4</td>
<td>-4.9</td>
<td>-4.4</td>
<td>-4.2</td>
<td>149.9</td>
<td></td>
<td></td>
<td>52.4%</td>
<td>54.3%</td>
</tr>
<tr>
<td>5) Half of costs paid by students, zero-interest loan only available for 25% of the population, 80% loan and tuition repayment rate</td>
<td>70.0</td>
<td>66.7</td>
<td>63.5</td>
<td>-4.3</td>
<td>-3.9</td>
<td>-3.6</td>
<td>-3.4</td>
<td>177.1</td>
<td></td>
<td></td>
<td>61.9%</td>
<td>63.4%</td>
</tr>
<tr>
<td>6) 25% of costs paid by students, zero-interest rate for all</td>
<td>100.0</td>
<td>95.2</td>
<td>90.7</td>
<td>-10.3</td>
<td>-9.8</td>
<td>-8.9</td>
<td>-8.5</td>
<td>228.4</td>
<td></td>
<td></td>
<td>79.9%</td>
<td>83.6%</td>
</tr>
<tr>
<td>7) 25% of costs paid by students, zero-interest rate loan for all, 50% effective repayment of loans</td>
<td>100.0</td>
<td>95.2</td>
<td>90.7</td>
<td>-5.4</td>
<td>-4.9</td>
<td>-4.4</td>
<td>-4.2</td>
<td>257.2</td>
<td></td>
<td></td>
<td>89.9%</td>
<td>91.8%</td>
</tr>
<tr>
<td>8) Discounted public costs of a 100% public financing</td>
<td>100.0</td>
<td>95.2</td>
<td>90.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>285.9</td>
<td></td>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

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.