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Professional Services and Development

A Study of Mozambique

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Abstract

Professional skills are scarce in Mozambique, even by the standards of low-income countries. The solution, however, is not necessarily to create more Mozambican training institutions but to address market-specific problems. Where skills are already the binding constraint (for example, in auditing and engineering), policy action is indeed needed to remedy *supply-side* problems: capital market imperfections that inhibit investment in training institutions by entrepreneurs and in education by individuals; weakness in upstream school education, which handicaps Mozambican students in their pursuit of higher education; inadequacies in professional education and training, including curricula not attuned to industry needs; and a fragmentation of the regional education market by regulatory and language differences that prevent the emergence of regional institutions that can exploit economies of scale.

Where skills may be limited but are not yet the binding constraint, the priority is to *stimulate demand* for appropriate skills. In this respect, the emergence of professional guilds offers opportunities, but also creates risks. The guilds can design, with government support, a regulatory framework, for example, in accounting and basic engineering, which is more attuned to the needs of Mozambican firms. They can also help make firms more aware of the benefits of professional help, for example, in accounting and information technology. The risk is that guilds will create unnecessary regulatory barriers to entry, particularly for foreign or foreign-trained professionals. Greater coherence between policies affecting professional services and international migration policy can help deal with both supply-side and demand-side problems.

This paper—a product of the Trade Team, Development Research Group—is part of a larger effort in the department to improve our understanding of international trade in services. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at afernandes@worldbank.org and amattoo@worldbank.org.

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**PROFESSIONAL SERVICES AND DEVELOPMENT:
A STUDY OF MOZAMBIQUE***

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OVERVIEW

In the past, development policy has viewed higher education with ambivalence, but there is a growing realization that appropriately designed higher education policies can play a vital role in promoting growth and reducing poverty in African countries. Among the three pillars of Mozambique's 2006 PRSP was the expansion of human capital, including qualified scientists, engineers, technical personnel, and information technology experts. It has also been recognized that business skills and services, such as accounting and legal services, can help reduce transaction costs, which are a significant impediment to growth in Africa. And well-trained teachers and physicians can improve the health and productivity of Africans. Recent estimates suggest that a one-year increase in the tertiary education stock could increase African incomes per capita by about 3% in 5 years and by 12% eventually.

This paper studies the markets for four types of professional services in Mozambique: accounting and auditing, engineering, corporate legal, and medical services. It shows that Mozambique is exceptionally scarce in professional skills even taking into account its low-income per capita. Only 0.6% of the private sector labor force has completed tertiary education, and professionals represent only 2.7% of the workforce in Mozambican firms, compared to an average of 5.8% for a number of other African countries. The appropriate policy response to this scarcity, however, depends on the conditions in the markets for specific professional skills. In particular, taking a uniformly supply-augmenting approach to professional education may be inappropriate.

Where skills are already the binding constraint, for example in auditing and engineering services, policy support to generate skills would be unnecessary if the market provided signals, incentives, and opportunities to acquire skills. To some extent, this may already be happening: there was a 147 (63) per cent increase in the number of new students admitted to private (public) universities between 2004 and 2006 to pursue engineering, industry, and construction degrees. In some other areas, skill shortages may not yet be apparent, but the government needs to take anticipatory action - because predicted economic growth rates in Mozambique are bound to generate increased demand for skills whereas supply can only respond with a lag, due to the time it takes to create training institutions and schools that equip students with professional qualifications.

Policy action is needed to remedy several *supply-side* problems.

- Imperfections in the capital market inhibit investment in educational/training capacity by private institutions and in human capital by individuals. For example, private higher education institutions such as ISUTC (*Instituto Superior de Transportes e Comunicações*) have reportedly found it difficult to obtain loans to finance improvements in facilities for engineering education. And there are no public, no for-profit private, and no non-profit private institutions in Mozambique currently offering loans for students to finance their university studies.
- Weaknesses in upstream school education seriously handicap Mozambican students in their pursuit of higher education. For example, it is common for

- Weaknesses in professional education and training imply that the curricula are often not attuned to the needs of industry. For example, there are too few engineers or engineer technicians with knowledge of road maintenance and not enough tax lawyers to meet the needs of foreign investors. The market is not conveying adequate information and the relevant stakeholders (private sector, universities, and guilds) are failing to coordinate. For example, universities and the private sector rarely collaborate to arrange internships for engineering students which would help them acquire the practical training that universities cannot provide but employers desperately seek.
- Fragmentation of the regional market for education by differences in regulation and language prevents the emergence of regional institutions that could exploit economies of scale in education. It is unclear that SADC countries have benefited much from the recommendation in the SADC Protocol on Education and Training for tertiary education institutions to reserve at least 5% of admissions for regional students. For example, a recent audit by the SADC Secretariat shows that there are only 923 Mozambican students in South African public universities, which represent only 2.6% of the 35725 foreign students from SADC countries being trained in South Africa.

Where skills may be limited but are not yet the binding constraint, policy intervention solely to generate skills can be counterproductive: as of 2000, 10696 university-educated Mozambicans were living in OECD countries corresponding to about 45% of all university-educated citizens living in Mozambique and close to 2800 were living in South Africa, a huge skilled emigration rate even by African standards. Instead, the priority is to *stimulate demand* for appropriate skills. In this respect, the emergence of professional guilds in Mozambique offers opportunities but also creates a risk.

- Inappropriate standards often stifle demand for services in areas such as engineering and accounting. For example, international tenders for roads or electrification projects require that only engineers with 15 years of experience be hired, under guidelines imposed by international financiers, such as the World Bank. While the presence of some experienced (usually foreign) engineers as team leaders may be desirable, minimum standards for all engineers unnecessarily prevent recent Mozambican engineering graduates from participating and acquiring work experience. Similarly, the Mozambican government's project to introduce International Financial Reporting Standards (IFRS) for corporate accounting may be excessively costly for certain types of firms, even though there is a provision for small firms to use a simplified standard.
- Guilds can create, with government support, a framework for *regulation* that is both effective and appropriate to the needs of Mozambique. For example, in areas like accounting and engineering, guilds can help develop professional qualifications which are more attuned to the needs of Mozambican households and firms. A desirable precedent is the training and certification of medical technicians who are trained at a tenth of the cost of physicians, have achieved similar health outcomes, and have weaker incentives to emigrate: more than 80%

- Guilds may need to cooperate with regional organizations in developing standards for services and service professionals which reflect the needs of the poor and small enterprises, and not just of the minority of affluent consumers and large firms. For example, in accounting, Mozambique could benefit from regional cooperation in the Eastern Central and Southern African Federation of Accountants (ECSAFA) to develop standards that serve the needs of SMEs.
- Guilds can also take the lead in creating greater awareness among firms of the benefits of using professional help in areas like accounting and information technology. Today, for example almost none of the firms in the vast retail sector in Mozambique keep formal accounts. Also, very few manufacturing firms use information technology.
- The risk is that guilds will seek, as has been observed in other countries, to protect the interests of their constituents by creating unnecessary regulatory barriers to entry for foreign or foreign-trained professionals and hence segment the regional market. This risk can be mitigated if Mozambican guilds form partnerships with and are open to members of guilds from other countries in the region and in the rest of the world establishing for example agreements for mutual recognition of professional qualifications.

It is desirable to ensure greater coherence between policies affecting professional services and *international migration policy*, particularly where supply is a constraint but also where demand needs to be stimulated. It will, however, be a challenge to bridge the gap between economic desirability and political feasibility at home and abroad.

- The proportional quota system in Mozambique's new foreign worker law was expected to simplify the process of hiring foreign workers but the initial reactions from the private sector suggest that it is no less restrictive than the previous discretionary system. Limiting the immigration of foreign professionals may create more opportunities for domestic professionals, but such restrictions could have significant adverse effects. For example, they could hurt growth by penalizing industrial users of professional services in Mozambique, stifle the flow of information about new services and their benefits, and deny local professionals valuable learning opportunities. Moreover, foreign professionals often also share their knowledge and experience by engaging in local education and training. For example, some experienced foreign professionals working in Mozambique lecture university students in law and auditing, and more could be induced to do so. Therefore, a more constructive policy would be to allow more liberal entry of foreign professionals.
- With regard to the emigration of the skilled, the flows seem to have declined, especially when compared to the exodus during the country's civil war. Nevertheless, certain Mozambican professionals may still have incentives to emigrate, and the possible conflict between private and social interest may be resolved by granting individuals the opportunity to earn and learn abroad but cooperating with destination countries, notably Portugal and South Africa, to

Hence, unilateral reforms by Mozambique would ideally be complemented by regional and international cooperation. Regional cooperation is most clearly needed to facilitate the emergence of regional hubs for higher education and skill formation in the Southern African region. The development of appropriate standards may also be more feasible and desirable if undertaken regionally. At the same time, harmonization and/or mutual recognition of qualifications and professional licensing requirements would lead to the creation of a regionally integrated market for both training and professional services. In other areas, cooperation will need to be bilateral, for example on migration with destination countries such as South Africa and Portugal.

1. Introduction

Professional services matter for development but generating skills alone may not help.

Higher education: The new mantra?

Development policy has viewed higher education with ambivalence. For a long time, tertiary education was ignored because social returns to primary and secondary education were believed to be much higher. Then views changed. Two World Bank reports in 2000 and 2002, and more recently the 2005 report of the Commission for Africa, argued that higher education could play a vital role in promoting growth and reducing poverty in African countries. Among the three “pillars” of Mozambique’s 2006 PRSP (República de Moçambique, 2006) was the expansion of human capital available for productive activities and improving the ability of the workforce to absorb new technologies. In particular, the PRSP proposed improvements in the performance of the science and technology system in Mozambique by developing appropriate human resources, including qualified scientists, engineers, technical personnel, and information technology experts.

There has also been recognition of the importance of business skills and services, such as accounting and legal services, and their role in reducing transaction costs. Collier and Gunning (1999) consider high transaction costs as the most significant impediment to economic growth in Africa. Other links between skills and development have also been emphasized. Well-trained teachers enhance the quality of primary and secondary education systems, and well-trained physicians improve a society’s health and productivity. The resultant enhancement of the stock of human capital should, at least in principle, improve long-run growth performance. Based on estimates of an aggregate production function, Bloom, Canning, and Chan (2006) show that a one-year increase in the total education stock would increase the long-run steady state level of African GDP per capita by 12.2%. If that one-year increase was due to an increase in the tertiary education stock, then African income per capita could increase by about 3% after 5 years and by 12% eventually.¹

Mozambique’s recognition of the need to improve higher education led in 1997 to the establishment of a national commission. Efforts to improve higher education were bolstered by debt relief, increased southern African cooperation in higher education, and strong interest among the business community, multilateral agencies, and donors. In May and June 2000, ten regional consultations were held with higher education institutions, students, businesses, regional governments, and civic associations. These consultations led to a *Strategic Plan for Higher Education in Mozambique 2000–2010* whose aim is to improve the equity, quality, and relevance of higher education, and later to a new higher education law in November 2002.

¹ The reason for the additional boost to income growth if the increase in the stock of education results from an increase in tertiary education is that the stock of tertiary education is allowed to affect the speed of technological convergence across countries.

Markets for professional services

Policy action for higher education raises grand and complex questions, because the ambitions are grand and complex – i.e., to stimulate economic, social, and even political transformation (Bloom, Canning, and Chan, 2006; World Bank, 2008a). A more manageable task, and the focus of this paper, is to study the functioning of the markets for professional services. The set of services that we propose to study includes accountancy and auditing, corporate legal, engineering, and certain medical services, as well as the upstream educational and training services for these professions. The choice of these services is based on their economic and social importance, and because focusing in some depth on this subset of professional services can provide more general insights into the state of professional services and certain economic aspects of higher education in Mozambique.

All types of professional skills are limited in Mozambique. Only 0.6% of the private sector labor force has completed tertiary education, and professionals represent only 2.7% of the workforce in Mozambican firms, compared to an average of 5.8% for a number of other African countries. But our findings suggest a vital distinction between professional services where there is already significant *private* demand and services where there is as yet limited private demand. In order to assign services into one of the two categories, however, we need to make finer distinctions between professional services. Within most professions, we can make a horizontal distinction according to specialization (for example, tax lawyers, labor lawyers, commercial lawyers) and a vertical distinction according to experience or other indicators of quality (for example, recent graduates in engineering versus engineers with 15 years of experience, or graduates from a weak institution versus graduates from a reputable institution). Our evidence suggests that different types of professional skills are scarce to different degrees in Mozambique.

High (or increasing) prices of say quality auditing, engineering or legal services from experienced (often specialized) professionals (or evidence of rationing of services) suggest high demand relative to the supply of these professional services, and that this inadequacy is becoming a constraint on further economic expansion. For example some individual accountants are responsible for signing the accounts of 30 firms, six times the legal restriction of 5 firms per accountant. In principle, these market signals should provoke a response by creating incentives for individuals to acquire skills and remain in Mozambique. That may be already happening in some areas: the number of new students admitted to engineering, industry, and construction degrees in Mozambique increased by 147% in private universities and by 63% in public universities between 2004 and 2006. So the one situation in which there is clear evidence that supply of skills is a problem is also the one situation where the market will in principle provoke the appropriate response.

The problem, of course, is that the spontaneous response in the supply of skills is likely to be weak and slow – e.g., imperfections in the capital market may inhibit investment in educational or training capacity or by individuals in human capital, or

investment may be deterred by weaknesses in the business environment, or by limits to other input skills, such as those of educators and trainers. For example, there are no public, no for-profit private, and no non-profit private institutions in Mozambique currently offering loans for students to finance their university studies. Also, private higher education institutions such as ISUTC (*Instituto Superior de Transportes e Comunicações*) have reportedly found it difficult to obtain loans to finance improvements in the quality of the training in engineering areas.

In these circumstances, the government can help remedy the underlying capacity constraints in ways that are discussed below.

Where, however, there are no signs of high or increasing prices (or of rationing of services), it is fair to assume that either there is currently limited private demand relative to the supply of services or even that a market for the relevant service does not exist. We can distinguish between at least three types of situations:

- (a) given current rates of growth, the derived demand for management consultancy services for example is probably in line with current supply (both are low); or
- (b) given current levels of information, most firms are not aware of the benefits of IT services for example but better information would lead to increased demand; or
- (c) given the current distribution of income in Mozambique, few people can afford the services of doctors or accountants as currently certified but there would be significant demand for cheaper, less elaborately trained professionals.

In none of these circumstances is encouraging the education or training of more professionals a solution by itself. Public support for professional education in the absence of increased local returns to skills will be counterproductive, like pushing on a string – the professionals will simply go where their services are most valued, i.e., emigrate. Mozambique seems to have already suffered from significant brain-drain: as of 2000, university-educated Mozambicans living in OECD countries represented 45% of all university-educated citizens living in Mozambique, which is high even by African standards.

In situation (a), it is best to wait until Mozambique's economic growth (or its anticipation) generates an increased demand for skills which will create incentives to acquire skills and stay in (or return to) Mozambique.² How far is this already happening? Are "shortages" producing increased demands for and hence returns to skills? Have skilled people stopped leaving and/or are skilled people from other countries coming in? It is hard to provide definite answers to these questions even though we know that there is

² In some areas where shortages are not yet apparent but are likely to emerge, the government may need to take anticipatory action. This is because given Mozambique's current growth opportunities, there are predictable shortages of skills in the near future. Such shortages could eventually constrain growth. Given the lags in supply response, both in terms of creating institutions to train professionals and schools that can produce students who can be trained as professionals, action now may prevent constraints to growth in future.

immigration at the top end of skills, but that is perhaps a segment of the market to which most Mozambique professionals cannot aspire at this stage.³

In the other two situations, there is a case for policy intervention. In situation (b), there is market failure due to inadequate information, and it would make sense to educate firms about the benefits of IT services. One means could be initially to allow liberal imports of IT services so that the benefits become evident to more firms. In situation (c), there is a regulatory failure, and it makes sense to develop more appropriate qualifications for professionals, i.e., qualifications that are more attuned to the needs of most households (e.g., medical technicians who serve the poor) and firms (e.g., accounting technicians who serve SMEs).

Four areas for policy action

Given these differing circumstances, the evolution of markets for professional services in Mozambique will be influenced by policy in four areas: education, immigration, emigration, and regulation. In each area, regional and international cooperation would ideally complement unilateral action by Mozambique.

Where the inadequacy in professional skills is already being felt or can be clearly anticipated, enhancements in national *education capacity* are needed. Weaknesses in upstream school education seriously handicap Mozambican students in their pursuit of higher education. For example, it is common for Mozambican students to take 8 years to complete an engineering degree that should be completed within 5 years. Weaknesses in professional education and training also require policy action. For example, the curricula are often not attuned to the needs of industry: there are too few engineers or engineer technicians in Mozambique with knowledge of road maintenance and not enough tax lawyers to meet the needs of foreign investors. The market is not conveying adequate information and the relevant stakeholders (private sector, universities, and guilds) are failing to coordinate. Universities and the private sector rarely collaborate to arrange internships for engineering students which would help them acquire the practical training that universities cannot provide but employers desperately seek.

Enhancements in national *education capacity* must be complemented by efforts to facilitate the emergence of regional hubs for higher education and skill formation in the Southern African region. Such hubs can reduce the costs of education by exploiting economies of scale and help fulfill the regional need for a variety of specialized skills. South Africa's active involvement and support for such hubs would ensure that even as it draws labor, unskilled and skilled, away from the rest of the region, it has a positive net effect on the skill endowments of its neighbors by contributing to regional education and training. While linguistic differences may limit Mozambican students' enrollment in regional institutions, such institutions could play a valuable role in advanced specialized education which could only be provided at great cost in Mozambique.

³ Apparently, officials from the Portuguese embassy have received a number of requests from Mozambican-born professionals who currently live in Portugal but would like to return to Mozambique.

In order to tap into the regional (or even global) pool of skills, Mozambique needs to reconsider its *immigration policy*. It is not in Mozambique's interest to cut itself off from the regional and international market for skills. While there may be an interest in limiting the entry of foreign professionals in order to create opportunities for domestic professionals, such restrictions could undermine growth by penalizing industrial users of professional services in Mozambique. Restrictions on foreign entry also stifle the flow of information about new services and their benefits and deprive local professionals of valuable learning opportunities. Moreover, foreign professionals often share their knowledge and experience also by engaging in local education and training. For example, some experienced foreign professionals working in Mozambique lecture university students in law and auditing, and more could be induced to do so. Therefore, a more constructive policy would be to allow more liberal entry of foreign professionals.

As noted above, all the education and training will provide few downstream benefits if the professionals simply leave, i.e., if professional brain-drain from Mozambique continues. The ultimate remedy for this problem is the emergence of better opportunities in Mozambique which will come with economic growth. But there are bound to be situations where *emigration* is privately profitable but socially undesirable. In such circumstances, a balance between private and social interest could be struck by granting individuals the opportunity to earn and learn abroad on the condition that they stay abroad is temporary. Temporariness cannot be ensured by Mozambique unilaterally but may be accomplished through cooperation with destination countries. Mozambique can explore if Portugal and South Africa, the two major destinations, would agree to grant non-extendable visas to certain categories of Mozambique professionals – even though this may not be in the destination countries' own interest but because of their broader commitment to development in the region. Cooperation agreements could be modeled along the lines of those between Poland and the Netherlands.

Finally, the emergence of professional guilds in Mozambique offers an opportunity but also creates a risk. The opportunity is for the guilds to create a framework for *regulation* that is both effective and appropriate to the needs of Mozambique. This would involve, in particular, cooperation with regional organizations to develop standards for services and service professionals which reflect the needs of the poor and SMEs, and not just of the minority of affluent consumers and large firms. Such standards would have a double benefit: the service would be more affordable and there could be weaker incentives for the service provider to emigrate abroad or from rural to urban areas. Guilds can also take the lead in creating greater awareness among firms of the benefits of using professional help in areas like accounting and information technology. The risk of the emergence of the guilds is that they will seek to protect the interests of their constituents by creating regulatory barriers to entry for foreign or foreign-trained professionals and hence segment the regional market.

2. The Limited Availability of Skills

Even after controlling for per capita income, Mozambique is unusual in terms of the limited availability of skills and the limited use of professionals and professional services, with acute regional disparities.

2.1 A Cross-Country Perspective on Skills

The household survey of 2003 shows that only 0.6% of the labor force working in the private sector in wage employment has completed tertiary education while 6% of the labor force has completed secondary education or technical training (World Bank, 2008). These figures show an improvement relative to the household survey of 1997 but are still very low in absolute terms.⁴ Also, as of 1998, less than 3% of the staff in Mozambique's public administration had tertiary education and only 12% had completed secondary education (PRSP, 2001).

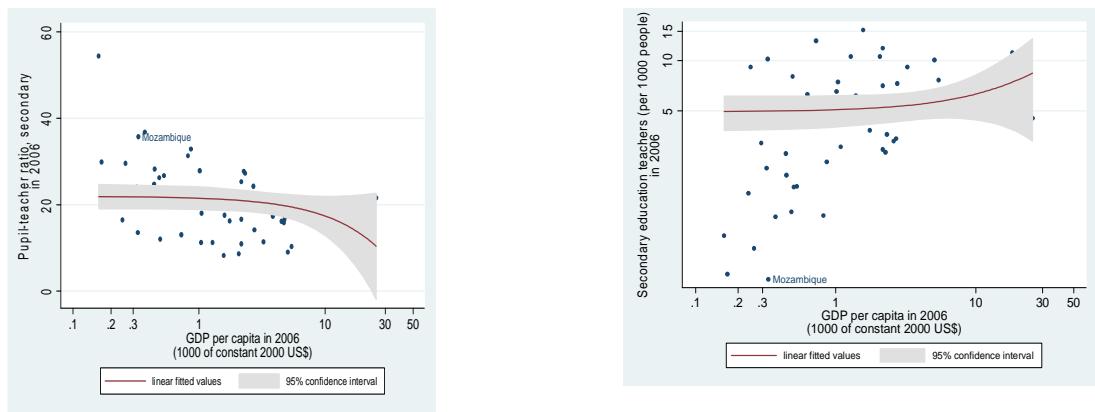
Even though there have been significant improvements in the state of education in Mozambique over the last 15 years, Mario, Fry, Levey, and Chilundo (2003) argue that all forms of education are still scarce in the country and that there is a dramatic funneling at each successive stage of the educational system. Figure 1 shows that even after controlling for income per capita, Mozambique is an outlier regarding its indicators on education inputs. It is not surprising therefore to see in Figure 2 that Mozambique's indicators on education outputs are low even by low-income country standards. For example, the gross secondary school enrollment rate of 15.5% in Mozambique in 2006 is strikingly low relative to rates of 29.1% in Malawi and 36.1% in Zambia.⁵

Despite a threefold increase between 1990 and 2002, Brito (2003) finds that the number of students enrolled in higher education institutions in Mozambique as of 2002 is a microscopic segment of the population: only 40 of every 100,000 inhabitants compared to 596 of every 100,000 inhabitants in Botswana. Statistics from the Ministry of Education and Culture show that as of 2002, students enrolled in higher education institutions in Mozambique represented 0.38% of the potential student population (18-29 year olds). That share increased to about 0.7% in 2005 and 1% in 2006.

⁴ Specifically in the 1997 household survey 0.0% (3.7%) of the labor force working in the private sector in wage employment has complete tertiary education (*complete secondary education or technical training*).

⁵ The low secondary enrollment rates relative to what would be expected at Mozambique's income level are verified both for lower-secondary as well as for upper-secondary education.

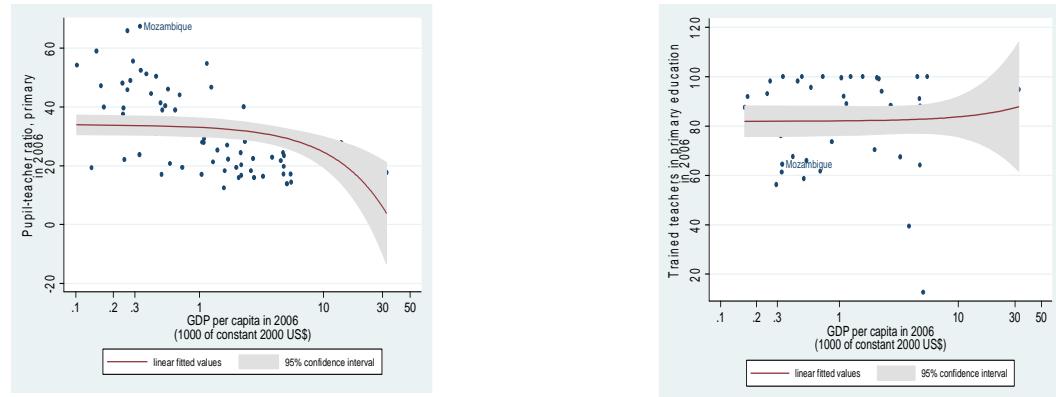
Figure 1: Education Inputs



Panel A. Pupil-Teacher Ratio in Primary Education

Panel B. Trained Teachers in Primary Education

Figure 1: continued

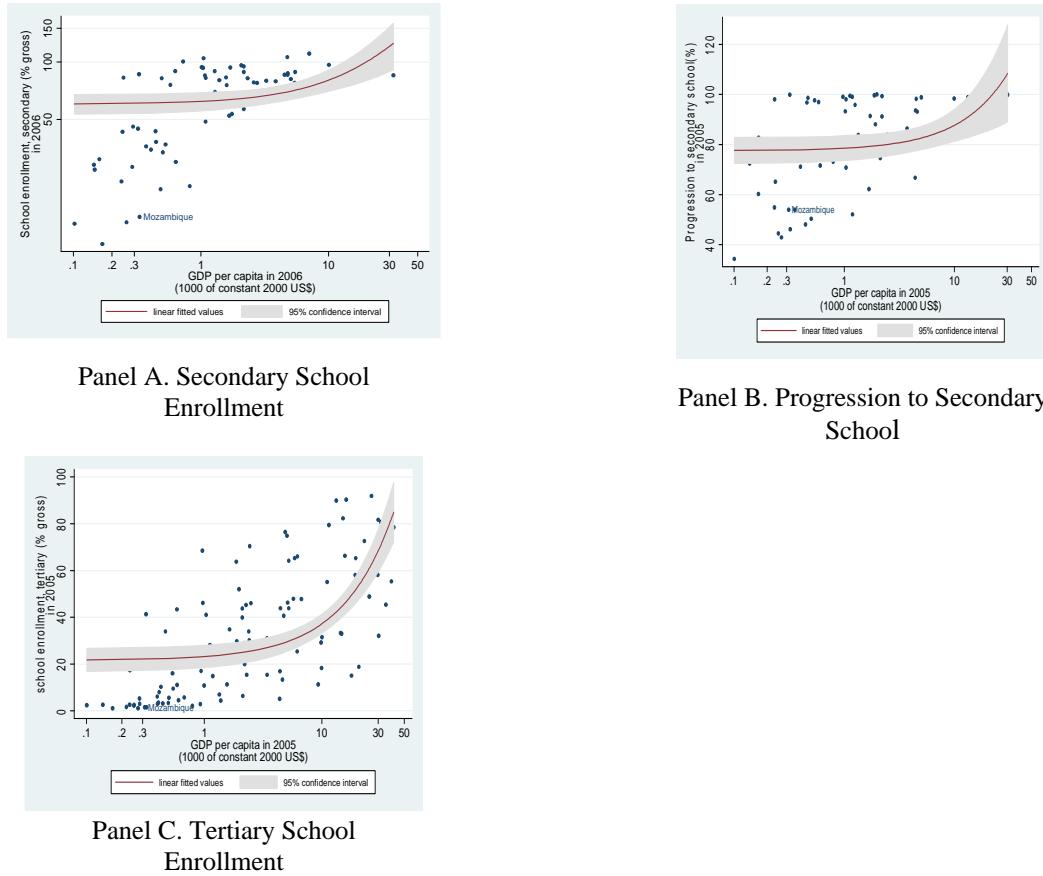


Panel C. Pupil-Teacher Ratio in Secondary Education

Panel D. Secondary Education Teachers per Capita

Source: World Development Indicators.

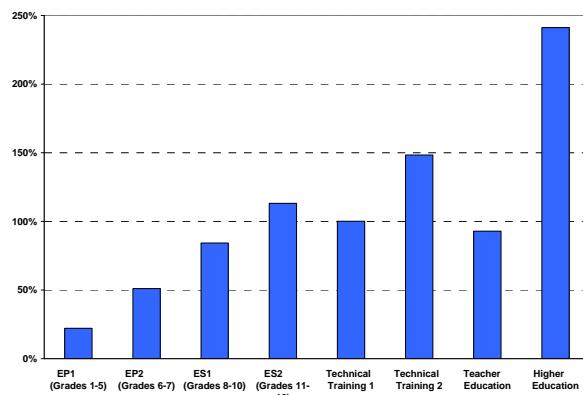
Figure 2: Education Outputs



Source: World Development Indicators.

The low level of skills raises the question: Do individuals have an incentive to acquire skills? Some hard evidence is provided in World Bank (2008b) through estimates of earnings equations for Mozambican workers based on household data for 2003. In Figure 3 we reproduce the estimated percent increase in wages for each degree of education completed, relative to the average wages paid to workers with no education. The numbers suggest a high private return to higher education, substantially higher than the private return to secondary education (ES2) and to any other lower levels of education. This ordering of returns to education is similar to that in other low-income countries, as shown by Psacharopoulos and Patrinos (2002). These returns suggest that even if the educated were destined to work only in Mozambique, there would still be clear incentives to acquire tertiary education in Mozambique.

Figure 3: Private Returns to Education in Mozambique



Source: World Bank (2008b) based on data from Mozambique's household survey (*IAF*) in 2003.

Working in Mozambique is not, however, the only option for the skilled. The low availability of skills locally is also a consequence of skilled emigration from Mozambique. Table 1 shows that as of 2000, university-educated Mozambicans abroad represent 45% of all university educated citizens living in Mozambique. This rate is huge compared to other SADC countries, and is only smaller than that for the island-state of Mauritius.⁶ In contrast, migration rates for secondary-educated and primary-educated Mozambicans are more in line with those for other SADC countries. Thus, emigration from Mozambique is highly skewed towards university-educated individuals, which are likely to include professionals. It is likely that much of the emigration took place in the period of civil unrest. But if these rates of emigration are continuing, then that is because the high returns to tertiary education in Mozambique are still lower than those abroad.

Note that Table 1 refers to Mozambican emigrants working in OECD countries. Also note that the emigration rate is given by the stock of Mozambican emigrants with tertiary education degrees (whose total number is 10,696) in 2000 as a proportion of the total labor force in Mozambique with tertiary education. South Africa is also a significant destination for Mozambicans. The South African population censuses of 1996 and 2001 report the presence of, respectively, 1,513 and 2,788 Mozambicans with tertiary education working in South Africa.

⁶ The SADC countries are Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

Table 1: Emigration Rates by Level of Education in 2000

	Tertiary Education	Secondary Education	Primary Education
Swaziland	0.5%	0.0%	0.0%
Namibia	3.5%	0.2%	0.1%
Botswana	3.6%	1.0%	0.1%
Lesotho	4.3%	0.2%	0.0%
South Africa	7.5%	0.8%	0.3%
Tanzania	12.4%	1.4%	0.1%
Zimbabwe	12.7%	1.8%	0.2%
Zambia	16.8%	1.1%	0.2%
Malawi	18.7%	2.5%	0.1%
Angola	33.0%	7.7%	1.9%
Mozambique	45.1%	6.3%	0.6%
Mauritius	56.2%	9.1%	7.5%

Source: Docquier and Marfouk (2004).

Note: The table shows for each country's migrants with a given education level as a share of all natives and migrants in that country with that same education level.

2.2 A Cross-Country Perspective on the Availability of Professionals

The Investment Climate Surveys conducted by the World Bank provide evidence of the limited use of professionals and of tertiary educated workers in manufacturing firms in Mozambique relative to the use by firms in other African countries (Table 2). In fact, Mozambique has the lowest share of professionals and of those with more than 12 years of education in the manufacturing workforce.

Table 2: Professionals and Tertiary Educated Workers in Manufacturing Firms

	Average Share of Professionals in Total Workers	Average Percentage of Workers with Tertiary Education
Mozambique	2.7%	1.6%
Mauritius	2.8%	3.9%
Ethiopia	3.5%	
Eritrea	4.1%	
Nigeria	4.3%	
South Africa	4.6%	11.5%
Malawi	4.6%	
Kenya	4.6%	15.0%
Zambia	5.2%	14.7%
Madagascar	6.1%	12.0%
Uganda	6.9%	35.4%
Senegal	6.9%	
Mali	7.3%	11.5%
Benin	8.1%	15.6%
Tanzania	11.9%	

Source: Investment Climate Surveys.

Note: The surveys were conducted for different countries in different years.

A more disaggregated comparison, at the level of manufacturing sub-sectors, is possible with South Africa. Even though the definitions of the skill categories are not the same across the two countries, the differences in skill intensity in each of the sub-sectors shown in Table 3 are stark.

Table 3: Tertiary Educated Workers across Manufacturing Sub-Sectors

	Mozambique	South Africa
	Average Share of Workers with University Degree	Average Share of Highly Skilled Workers
Food and Beverages	1.7%	5.2%
Textiles	1.8%	3.8%
Wearing Apparel	0.4%	3.3%
Wood & Wood Products	0.2%	2.5%
Furniture	1.4%	6.0%
Metal Products and Machinery	2.5%	10.2%

Source: Investment Climate Surveys and 1989 South Africa input-output table.

The Investment Climate Surveys also provide some indication of the perceptions by manufacturing firms on the affordability and quality of specific professional services (Table 4). Affordability seems to vary across professional services: the percentage of firms that found accounting services to be affordable is high in Mozambique, as in the rest of the region, but legal, engineering, and IT services seem to be less widely affordable. But the perception of quality is much lower in Mozambique than other countries across the whole spectrum of services. We should note that firms that find services affordable tend to be medium-sized or large firms.

Table 4: Affordability and Quality of Professional Services

	Percentage of Firms that Find Accounting Services Affordable	Average Quality of Accounting Services	Percentage of Firms that Find Legal Services Affordable	Average Quality of Legal Services	Percentage of Firms that Find Engineering Services Affordable	Average Quality of Engineering Services	Percentage of Firms that Find IT Services Affordable	Average Quality of IT Services
Mozambique	89%	1.5	44%	1.0	38%	1.0	52%	1.0
Eritrea	93%	3.3	97%	3.0	60%	3.0	82%	2.6
Ethiopia	74%	3.2	75%	2.9	62%	3.0	51%	2.5
Mali	74%	2.7	33%	1.9	57%	2.5	64%	2.8
Senegal	91%	3.0	71%	2.6	63%	2.8	69%	2.9
Tanzania	81%	3.4	75%	3.0	67%	3.1	70%	3.0
Zambia	79%	3.3	66%	3.0	75%	2.9	83%	2.8

Source: Investment Climate Surveys.

Notes: The surveys were conducted for different countries in different years. A higher value of the quality index indicates better quality.

This evidence from the investment climate surveys matches the anecdotal evidence that emerged from interviews in Mozambique. The shortage of professionals is particularly felt in terms of graduates of good or sufficient quality. Multinational auditing and accounting firms face shortages of entry-level professionals not because of a lack of applications but rather because many of the candidates applying do not have the requisite quality of training. For example, in 2005, several auditor positions in one of the multinational auditing and accounting firms went unfilled since candidates with sufficiently good CVs were not found. Moreover, multinational auditing and accounting firms face severe shortages of senior-level professionals, due to the relatively high

turnover rates (after 5-7 years of work, staff often leaves for jobs at some of the firms' clients such as multinationals or banks).

3. A Closer Look at the Markets for Professional Services

There is a contrast between business services and social services. In the case of the former, limited supply has translated into high prices of scarce high quality services/high salaries of quality services providers. Other symptoms are: accountants breaking their annual quotas of accounts; mega projects unable to find engineer; top law offices unable to find experienced lawyers. In the case of the latter, limited supply means a low market price even though the social value of the service may be high.

Within all services, markets are vertically segmented. In business services, large firms supply high quality and expensive accounting, auditing, IT, and legal services to large enterprises, whereas small firms or individuals serve some middle enterprises. Most SMEs do not consume these professional services and are consigned to informality. In social services: physicians serve mostly urban areas, whereas non-physicians clinicians serve rural areas; the weakest students gravitate to the teaching profession.

3.1 Accounting and Auditing Services

Mozambique suffers from an acute shortage of Mozambican accounting and auditing professionals in all segments of the market. For example, at the high end, there are only a couple of Mozambican chartered accountants and less than 50 foreign nationals who are certified accountants working in Mozambique. At the middle and lower end, some individual accountants are responsible for signing the accounts of 30 firms, six times the legal restriction of 5 firms per accountant. Moreover, the available accounting technicians (*técnico de contas*) have variable levels of skill and training.

The market for accounting and auditing services in Mozambique is vertically segmented on both the supply and the demand side. The largest providers of accounting and auditing services in Mozambique are the 100% foreign-owned “big 4” (Deloitte, Ernst and Young, KPMG, Price Waterhouse Coopers).⁷ Also operating in Mozambique are other international providers: BDO International, Grant Thornton International (which is only partially foreign-owned) and at least one other smaller accounting firm also partially foreign-owned. Based on enterprise census data from the national statistical institute (CEMPRE 2002) shown in Table 5, as of 2002 there are 69 firms providing auditing and accounting services in Mozambique. Assuming that many of those firms continue to operate today, this implies that in addition to the big 4 and these other 3 partially foreign-owned firms, there are more than 60 domestic accounting firms providing accounting services (plus any new firms that opened between 2002 and 2008). Also, there are about 2000 accountants registered with Mozambique’s Ministry of Finance, some of which work for domestic accounting firms while others provide their

⁷ All these firms have their offices located in Maputo, but KPMG also opened recently a delegation in Nampula, the second largest city in Mozambique.

services individually.⁸ As discussed later in Section 5, domestic accounting firms and individual accountants are prevented by law from providing auditing services.

Table 5: Professional Services Firms in 2002

	Number of Firms	Number of Employees		Sales (millions of 2002 USD)	
		Average	Median	Average (excluding top/bottom 1%)	Median
Accounting and Auditing	69	19	5	723	23
Legal	42	6	4	66	3
Architecture and Engineering	41	34	7	277	76
IT (Programming and Consulting, Maintenance, Equipment Consulting, and Other)	50	10	6	198	39

Source: CEMPRE 2002 from National Statistical Institute (INE).

The market structure in the accounting and auditing services resembles an oligopoly with a competitive fringe. According to industry insiders, the revenues in the market served by the multinational big 4 are divided as follows: 37% for Ernst and Young, 30% for KPMG, 10% for Deloitte, and 13% for PWC. The market structure among the domestic accounting firms is unclear. The average size of the big 4 firms ranges from 35 professionals to about 115 professionals working on accounting and auditing, while the better known domestic accounting firms employ no more than 10-12 accountants.

The main clients for the services provided by the big 4 are: multinationals, large domestic firms, firms listed in the Mozambican stock exchange, public sector (ministries, public institutes), NGOs and donor-funded projects. Multinationals and large domestic firms originate in mining, manufacturing, and other services sectors (e.g., banking, telecommunications).⁹

The main clients for the services provided by the domestic accounting firms are smaller and medium-sized domestic firms.¹⁰ As Table 6 shows, only a small fraction of firms have their annual financial statements reviewed by an external auditor in Mozambique, and this fraction is much lower than that in other African countries. The absence of audited accounts may be one reason, though not necessarily the decisive one, why many firms find it difficult to access the formal financial market.

An official from the Mozambican business association CTA (*Confederação das Associações Económicas*) mentioned that small firms often do not know how to present

⁸ Note though that some of those registered accountants are actually in management jobs and thus not providing accounting services.

⁹ Incidentally, we should note that there are exceptions to these patterns: we interviewed in Maputo a domestic SME that uses auditing services from one of the big 4 because that is a requirement for the SME to receive financing from the IFC.

¹⁰ Apparently, a couple of years ago, one of the big 4 firms offered free diagnostics of accounting problems to SMEs (most of the problems identified were cash flow and credit-related) and then offered to be hired by the SMEs to solve their problems on a ‘pay as you can’ basis. The SMEs did not take advantage of that opportunity reportedly because they were “afraid” and they did not feel that the accounting services provided by the big 4 firm were useful.

balance sheets or how to ask banks for credit. The support of accountant technicians is crucial for these services but there are not enough technicians to serve the SMEs. The shortage of technicians is particularly acute outside of Maputo (even just 50 kms outside) and in the provinces their presence could also help improve public financial management at the municipal level.

Table 6: Auditing and Finance in Manufacturing Firms

	Percentage of Firms with Annual Financial Statements Reviewed by An External Auditor	Percentage of Firms with Access to Bank Loan	Percentage of Working Capital Financed by Commercial Banks	Percentage of New Investment Financed by Commercial Banks
Mozambique	16%	43%	7%	13%
Ethiopia	35%	46%	0%	0%
Benin	43%	25%	12%	14%
Madagascar	45%	18%	0%	0%
Mali	51%	24%	9%	12%
Uganda	59%	20%	7%	14%
Senegal	67%	23%	14%	18%
Tanzania	80%	19%	13%	16%
Malawi	80%	29%	17%	22%
Zambia	85%	43%	16%	17%
Mauritius	88%	52%	0%	0%
Eritrea	90%	38%	22%	31%
Nigeria	93%	9%	0%	0%
South Africa	97%	64%	16%	17%
Kenya	97%	35%	27%	32%

Source: Investment Climate Surveys and Mozambique/DANIDA Enterprise Survey 2006.

Note: The surveys were conducted for different countries in different years. For Mozambique we use the investment climate survey data in columns 1 and 3-4 and the DANIDA Enterprise Survey 2006 in column 2.

Some of the services providers complain that there are stark differences between firms that abide by international rules and regulations (such as the big 4) and those that do not. For example the big 4 use an electronic system to perform audit reports that requires a wrap-up of every phase before moving to the next phase. Abiding by international rules and regulations makes the services of those big 4 firms more expensive.

All providers in the accounting and auditing services sector consulted stated that the market for accounting services in Mozambique is extremely competitive – both among the big 4 as well as for domestic accounting firms. The size of the market is also expected to increase. First, retailers which traditionally had no accounts in Mozambique will eventually need to have formal accounting, though they tend to hire individual professionals for their accounts rather than accounting firms. Second, the plan to implement International Financial Reporting Standards (IFRS) is also likely to increase the demand for accounting services, but the appropriateness of these standards for any but the largest Mozambican firms needs to be carefully evaluated.

3.2 Legal Services

Law graduates may appear at first sight to be less scarce than other professions – in fact some officials feel that there may be too many already in Mozambique. But the picture is somewhat different if we consider the horizontal distinction between lawyers with different specializations (e.g., tax, labor, commercial) and the vertical distinction between lawyers with different levels of experience and perceived ability. Our discussions with the main stakeholders in this sector suggest that the main shortages are felt in some horizontal dimensions - for example not enough tax lawyers - and are especially acute in some vertical dimensions - for example the supply of experienced lawyers is limited.

The market for legal services in Mozambique is also vertically segmented but somewhat less dramatically so than the market for accounting and auditing services. The main providers of legal services are about 10 relatively large law offices and the legal departments of KPMG, PWC, and Deloitte. By relatively large law offices we mean law offices employing on average more than 15 lawyers each, as indicated by our survey in Maputo. These two types of services providers employ a total of about 157 Mozambican lawyers and 20 foreign lawyers. Based on the enterprise census data shown in Table 5, as of 2002 there were 42 firms providing legal services in Mozambique. Assuming that many of those firms continue to operate today, this implies that there are at least another 30 smaller law offices providing legal services in Mozambique (plus any new law offices that opened between 2002 and 2008). In addition to these law offices, individual lawyers also provide legal services. The Mozambican Guild of Lawyers as of March 2008 has a membership of 308 lawyers.¹¹ Many law offices are Mozambican-owned but we identified 5 law offices with some degree of foreign ownership.

The market structure in legal services is unknown. Based on our survey in Maputo, 4-6 large law offices account for more than 80% of the market for legal services and the rest of the market is accounted for by smaller law offices. The average annual sales of law offices in the period 2005-2007 range from 50000 USD to 2 million USD.

The main clients for legal services provided by the 10 relatively large law offices are multinationals, domestic firms of all sizes, and some parastatals. Only multinationals are able to purchase the services from the legal departments of the big 4 given the high prices charged.¹² There is also segmentation in demand in that smaller law offices report more often to be serving small domestic firms than larger law offices. Also, it is interesting to note that not all multinationals in Mozambique use law offices for their legal services' needs. For example, SASOL outsources legal services to a law office arguing that is the only efficient option given the complexity and time-consuming processes linked to the Mozambican legal system but MOZAL prefers to rely on the services of an internal legal advisor.

¹¹ Of these 308 lawyers, some work exclusively for the public sector but we do not have the exact number.

¹² In rare cases, ministries also use the services from the legal offices of the big 4 firms.

Providers of legal services believe that the market for legal services is competitive but also that great importance is attached to quality and reputation. Therefore, clients are likely to remain with a law office even if the law office raises the prices for the services provided. Some of the stakeholders in the sector believe that it is difficult for a new law office to establish successfully in Mozambique since the main clients for legal services (the government, international tenders, large and/or foreign firms) tend to always turn to the same “reputable” law offices for legal services.

Finally, note that our focus is on the private practice of law and on legal services demanded by and supplied to the private entrepreneurial sector. We do not discuss the demand for legal services by individuals nor the provision of legal services by the public judicial sector, which is discussed in detail in Levy (2002).

3.3 Engineering Consulting Services

The current number of graduates in engineering in Mozambique seems to be well below the number needed for achieving the country’s growth objectives. Shortages are particularly evident for railroad engineers and navy engineers, given the needs of Mozambique’s transport system, and for mining engineers, given the recent and forthcoming investments in mega-projects in mining. Also, there are very few engineers or engineer technicians with knowledge of road maintenance, although they are in great need.

The definition of engineering services is more nebulous than that of the previous two types of services given the partial overlap between engineering consulting services and construction services, on which we do not focus. The main providers of engineering consulting services in Mozambique are 8-10 firms. These firms employ a total of about 90 Mozambican engineers, 11 foreign engineers, as well as 18 technical engineers (with medium-level training). Based on the enterprise census data shown in Table 5, as of 2002 there were 41 firms providing engineering and architectural consulting services in Mozambique. Assuming that many of those firms continue to operate today, this implies that there are at least another 30 firms providing engineering consulting services in Mozambique (plus any new law offices that opened between 2002 and 2008). The majority of engineering consulting firms are Mozambican-owned but our survey of engineering consulting firms in Mozambique identified 4 firms with some degree of foreign ownership. The Mozambican Guild of Engineers has a current membership of 1100 engineers. Note however that the most important employers for engineers in Mozambique are not engineering consulting firms but rather telecommunications firms (Mcel, Vodacom, and TDM), mining firms (MOZAL), and oil firms (Petromoc).

There is no information on the market structure in engineering consulting services. Based on our survey in Maputo, 2 large firms account for more than 65% of the market, followed by another player with about 22% of the market, and the rest of the market is accounted for by smaller firms.

The main clients for engineering consulting services are the public sector (water, highways, buildings, schools, hospitals), private investors (buildings, environmental studies, mega-projects in gas, coal, dams), large multinational or domestic firms, and donors.

3.4 IT Services

The definition of this type of services can be somewhat difficult given the possible overlap between (i) the provision of post-sale and maintenance IT services for firms that sell hardware and/or software and (ii) the provision of customized IT solutions and systems for user firms. It is possible that given the embryonic stage of development of the IT sector in Mozambique, disentangling those two types of services is not relevant and moreover, the provision of services of type (ii) may still be rare.

Based on Infodev (2007) there are about 73 providers of IT services in Mozambique: 30 firms whose primary activity is the sale of hardware, 24 firms whose primary activity is the sale of software, and 18 firms whose primary activity is networking.¹³ Based on the enterprise census data shown in Table 5, as of 2002 there were 50 firms providing IT-related services in Mozambique, up from 50 firms in 2002. In this census, IT services cover programming and consulting, maintenance, equipment consulting, and other. The majority of IT services firms are Mozambican-owned.

There is no information on the market structure in IT services in revenue terms, but we can provide a sense of the distribution of firm sizes in the various segments in terms of their number of employees. Of the 30 firms whose primary activity is the sale of hardware, 6 are large (more than 30 employees), 10 are medium (6-29 employees), and 14 are small (1-5 employees). Of the 24 firms whose primary activity is the sale of software, only 1 is large, 7 are medium, and 16 are small. Of the 18 firms whose primary activity is networking, only 1 is large, 7 are medium, and 16 are small.

3.5 Medical Services

Most of the medical services in Mozambique are provided by the public sector. Ferrinho and Omar (2006) provide a detailed description of both public and private providers of health services in Mozambique. Here we simply note that the distribution of private providers across types in 2006 is as shown in Table 7. Most of the public providers are domestic-owned with the exception of 3 foreign-owned clinics.

The demand for private medical services comes from the very small share of high-income individuals and households in Mozambique, including many expatriate professionals.

¹³ Note that we exclude from our discussion ISP providers and website providers also identified in Infodev (2007) as IT sector firms.

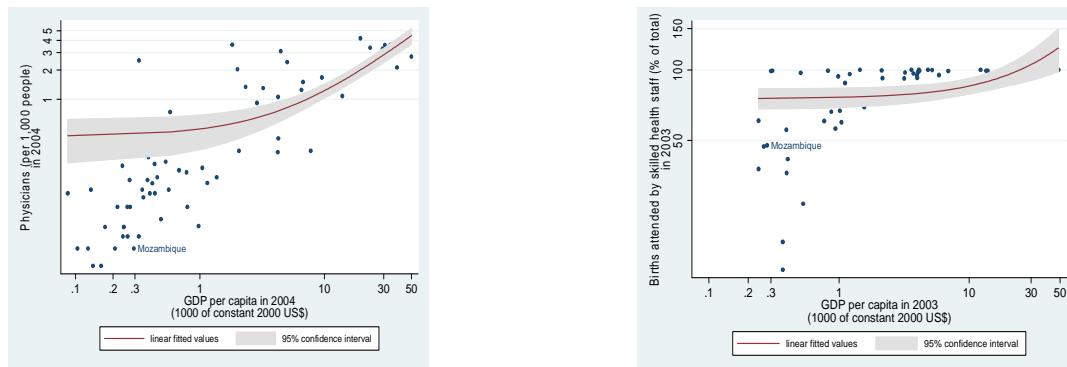
The number of doctors per 1,000 inhabitants is extremely low in Mozambique, even after controlling for income per capita, as shown in Figure 4. Shortages of medical assistants (middle-level degree) and nurses are also acute. The incentive system is to blame since the salaries of those medical assistants are substantially lower than those of doctors, so students pursue the 6 years of the medicine undergraduate degree rather than graduate with a bachelors degree after 3 years. However, such middle-level professionals can be crucial for the provision of affordable medical services as shown in Box 1.

Table 7: Private Medical Services Providers in 2006

	Maputo	Rest of Country
Health Post	31	67
Medical Post	3	1
Health Center	31	14
Clinic	11	5
Doctors' Office	42	18
Institute	2	0
Laboratory	10	1
Pharmacy	62	121

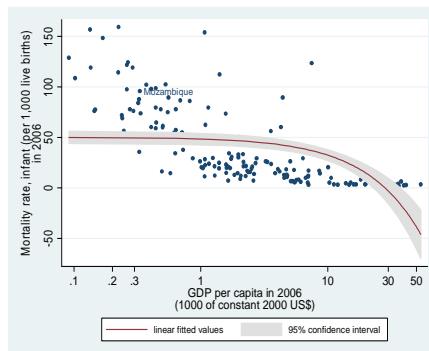
Source: Ministry of Health.

Figure 4: Health Inputs and Outputs



Panel A. Physicians per Capita

Panel B. Births Attended by Skilled Health Professional



Panel C. Infant Mortality Rate

Source: World Development Indicators.

Ferrinho and Omar (2006) find serious problems of quality in the training provided for health professionals. This poor quality is compounded by the poor quality of internships associated with the training programs. Physicians are trained at 3 universities: *University Eduardo Mondlane*, *Universidade Católica de Moçambique*, and *Universidade do Lúrio*. The academic performance of students training to be physicians is dismal, only 32% of students who enrolled after 2000 did not fail at least 1 academic year. Health workers at basic, elementary, and middle level are trained at 3 types of institutions: *Instituto Superior de Ciências de Saúde* in Maputo, health science institutes in 3 other cities, and training centers in the provinces.

Box 1. Non-Physician Clinicians: A Vital Complementary Profession

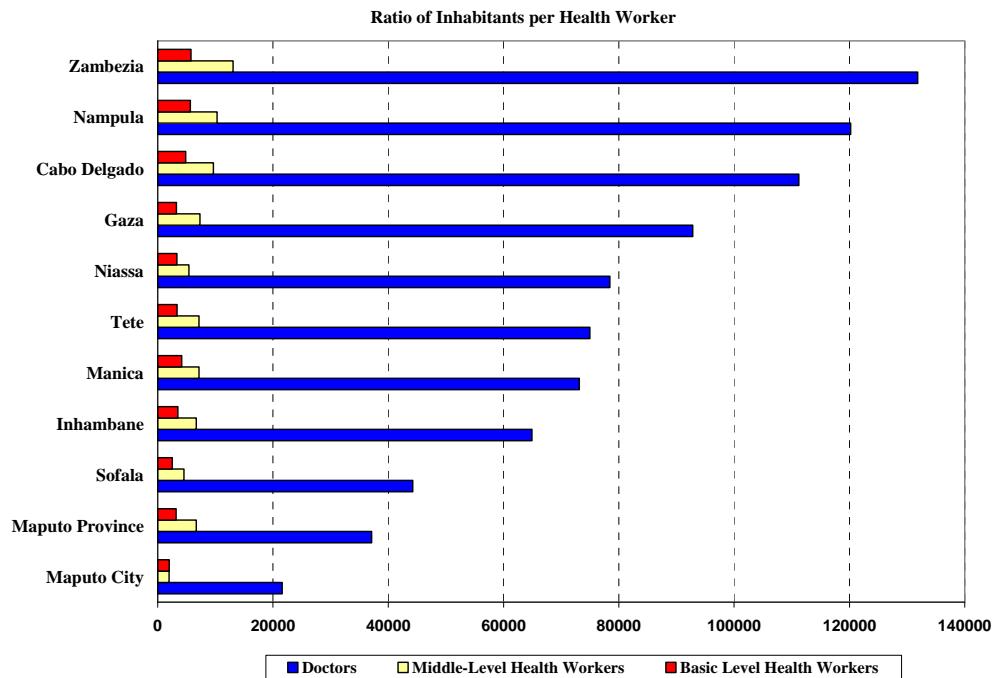
'Non-physician clinicians' (NPCs) (also known as 'substitute health workers'), are health workers with training beyond secondary school with more skills than a basic nurse but fewer clinical skills than a physician. In Mozambique, NPCs are called clinical officers and their training is 2.5 years after secondary school with 1 to 1.5 years of internship and their scope of practice is medicine, minor surgery, obstetrics (including caesarean section), dermatology, and public health (Mullan and Frehywot, 2007).

NPCs can be an essential resource to address health workforce shortages in African countries (Devlo, 2004; Mullan and Frehywot, 2007). First, NPCs provide clinical services ranging from basic primary care to specialized work such as ophthalmology or minor surgery, and often play a major role in antiretroviral treatment campaigns. Second, NPCs can be trained in less time and with less cost than physicians. For a specific category of NPCs in Mozambique - surgical technicians - training is estimated to be 10 times cheaper than the training of physicians (IPAS, 2001). Third, the training of NPCs tends to be more practical and focused on local health challenges. Fourth, the absence of standardization between NPC training programs across African countries (entry qualifications, training duration, and content of training) and relative to Europe and the U.S. has the advantage of preventing such NPCs from emigrating abroad and often also to urban areas (see figure below). Fifth, the available evidence suggests that for certain procedures within the realm of NPCs' action, patient outcomes are similar whether patients are treated by NPCs or by physicians (Ferrinho and Omar, 2004). Specifically for Mozambique, Vaz et al. (1999) found no differences in the success of caesarean sections conducted by surgery technicians relative to those conducted by physicians.

Thus, scaling up the numbers of NPCs produced is likely to be a cost-efficient way to address shortages of health professionals in Mozambique. However, several challenges need to be addressed for the scale-up to be successful. First, proper regulation and supervision of NPCs are needed to ensure quality of the services provided. Regulation should include a clear definition of the scope of practice of NPCs. Regulation and supervision may help address the opposition from the regulatory bodies for physicians and for nurses towards NPCs.

In several African countries such regulatory bodies often protect their interests and resist the delegation of skills and limit the scope of practice by NPCs.¹ It is, therefore, necessary to avoid interference by professional bodies of physicians and nurses in delineating the scope of practice by NPCs. That limitation can reduce the strategic effectiveness of substitutes and their ability to meet health needs in rural areas. In the case of Mozambique, however, Bergstrom (1998) argues that the delegation of responsibility towards NPCs has evolved from an initial hostility on the part of physicians to a fruitful collaboration and mutual recognition of these new professional careers.

Second, recognition and formal appreciation of NPCs is also needed, for example through government financial incentives which often target only doctors. Third, an expansion in the training capacity of NPCs with appropriate training equipment is needed. Of particular relevance is the expansion of training capacity to rural areas that could help fixing the NPCs in those areas and thus close the gap in health personnel needed to deliver services in poorly served regions. However, this expansion is dependent on the existence of qualified tutors, who are mainly located in urban areas.



3.6 Education Services

One may question whether professional skills in social services such as education are a public good which is inadequately valued by the private sector in Mozambique. On the face of it, a large proportion of students are training to be secondary school teachers out of the total number of students enrolled, the total number of new students admitted, and the total numbers of graduates from universities in Mozambique in 2006, as shown in Table 8. However, it should be noted that many of the students training to be secondary school teachers choose that path because they are not judged ‘good’ enough to study for other professional degrees. In fact, education specialists in Mozambique claim that only the worst secondary school graduates pursue training to be secondary school teachers.

Weaknesses in secondary education are a key supply-side problem for the quality of professionals and professional services in Mozambique. World Bank (2007) provides a detailed set of policy recommendations to address the weaknesses in secondary education ranging from improvements in school leadership and management to the provision of

better pedagogical conditions (e.g., libraries, computers), curricular reform, and improvements in teachers' training and working conditions (e.g., related to salaries, working hours, and the lack of didactic materials).

Table 8: Training of Secondary School Teachers

	2004	2005	2006
Total Number of New Students Admitted in:			
Teacher Training in Public Universities	151	526	9036
Teacher Training in Private Universities	57	122	568
<i>All Courses in Public and Private Universities</i>	<i>6579</i>	<i>8756</i>	<i>18316</i>
Total Number of Students Registered in:			
Teacher Training in Public Universities	771	1522	16860
Teacher Training in Private Universities	430	629	530
<i>All Courses in Public and Private Universities</i>	<i>22256</i>	<i>28298</i>	<i>43233</i>
Total Number of Graduates from:			
Teacher Training in Public Universities	358	293	1202
Teacher Training in Private Universities	6	265	104
<i>All Courses in Public and Private Universities</i>	<i>2878</i>	<i>3615</i>	<i>4580</i>

Source: Ministry of Education and Culture statistics on higher education.

4. Filling the Gap: Imports of Professional Skills

In some areas, such as auditing, foreign professionals dominate. Cross-border imports of professional services are insignificant.

The explicit barriers on foreign professionals have shifted from discretion to quotas but have not led to a less restrictive regime. With proper incentives, foreign professionals could help develop local skills, directly through training or indirectly through spillovers in the workplace. A key question for policy: what form should the policy incentives take – from a welfare and/or political economy perspective? Foreigners can introduce better/new services into the market place. Also they can stimulate demand for services in firms which have never perceived that they need say IT, auditing and other services – i.e. break the chicken-or-egg trap. How could this be encouraged?

The exact number of foreign professionals working in Mozambique is not available. From our survey in Maputo, we gathered information on the numbers of professionals working in various professional services sectors. The approximate numbers that we found are as follows. The total number of foreign professionals working in accounting and auditing in the big 4 and the other foreign-owned firms is about 30. Among partners in those firms, almost 100% are foreigners. In domestic accounting and auditing firms, all professionals are Mozambican. In large law offices and in legal departments of the big 4, the total number of foreign lawyers is about 20. In engineering consulting firms, the number of foreign engineers is between 10 and 15. In medical services, as of 2003 there

were about 261 foreign doctors, of a total of 712 doctors in Mozambique (Ferrinho and Omar, 2006).

The immigration of foreign professionals is not exactly filling the skills gap because hiring foreign workers in Mozambique is extremely difficult. Medical services are an exception since doctors are exempted from the regulations described below. The complexity, uncertainty, and delay associated with hiring foreign workers are one of the most persistent complaints of investors in Mozambique (USAID/Mozambique Country Strategic Plan, 2002).

Until December 2007, the hiring of foreign workers was governed by the authorization system described in Box 2, which entailed a case-by-case assessment by the Ministry of Labor.¹⁴ Since January 2008 the hiring of foreign workers is governed by the communication system also described in Box 2 (Rules 1 and 2), whereby firms can hire foreign workers without requiring a work authorization, through a notification of the Ministry of Labor, if foreign workers account for a smaller fraction of the workforce than that established by the new quota system. The system reverts to the work authorization, however, when the desired number of foreign workers is higher than the firm's allowed quota. An important aspect to note is that both the old as well as the new legislation on the hiring of foreign workers applies equally to firms operating in all sectors of activity and more importantly to workers of all skills. Also, the legislation applies not only to private firms, but also to the public sector and to NGOs.¹⁵

The main objective of the new 2008 labor law regarding foreign workers was to greatly simplify the process of hiring foreign workers. The new foreign worker law was negotiated by the Mozambican government, the private sector, and the unions. However, the text of the law apparently ended up being close to what the government wanted. The private sector wanted a much more flexible and easy to use system. But with the new labor law, even obtaining the acknowledgement that the firm is within the quota limit is a bureaucratic process in itself. Thus, critics believe that the new law may be worse than the previous law and that it will not be successful in simplifying the process of hiring foreign workers.

Critics believe that the foreign worker legislation ranges “from nuisance to hindrance”.¹⁶ First, the foreign worker legislation generates anxiety among firms because

¹⁴ USAID/Mozambique Country Strategic Plan (2002) argues that the instinct for controlling tightly the inflow of foreign workers on a case-by-case basis through the authorization system reveals (i) the persistence of elements from a command economy in the Ministry of Labor, (ii) a fear of foreigners controlling the national economy, (iii) a concern about disparities between locals' and foreigners' wealth and technical expertise. Moreover, it gives rise to rent-seeking opportunities as firms try to bribe the Ministry of Labor officials to relax the legislation.

¹⁵ Work permits which were conceded up until end 2007 to representatives and other foreigners coming to Mozambique to directorial positions were revoked. So there is currently a grey area regarding the arrival of this class of foreigners to Mozambique, and it is not clear that such foreigners should be subject to the same legislation as the foreigners with a work contract in a firm.

¹⁶ Not all professional services firms feel constrained in hiring foreign professionals. Some firms have an explicit preference to hire Mozambicans. For example, one firm providing accounting and auditing services said that foreigners would have difficulty in getting accustomed to the language and the environment in Mozambique. In particular, they would find it difficult to get used to the fact that in Mozambique many audit reports are qualified reports (i.e., they

even if applications are filled correctly, there is uncertainty about whether there will be any reaction from the Ministry of Labor.¹⁷ Second, firms that are more hurt by the legislation are those that comply honestly because they spend time and money understanding the rules. Third, some critics of the new law point to the high cost of processing the automatic admission when the objective of the new system was precisely to eliminate the administrative burden. Moreover, the costs of preparing the documents fall on the firm hiring the foreigner and not on the Ministry of Labor, so payment of administrative costs really makes little sense. Fourth, the need to submit the opinion of the union committee to the Ministry of Labor in the case of automatic admission is criticized since the rationale for that requirement is not clear. In fact, many claim that the need to submit the opinion of the union committee to the Ministry of Labor to obtain a work authorization for a foreigner under the previous law was used by the Mozambican government to force unionization in firms that did not otherwise have unions. Fifth, critics complain about the logistical details for the implementation of the quota system: the documents that should be used to calculate the quota of foreigners allowed for a given firm, whether all workers should enter that calculation including seasonal workers and interns, etc.

The new quota system is likely to be particularly punitive for new businesses starting their operations in Mozambique since it requires that a firm hires 9 Mozambicans before it can hire a foreigner and start-ups often start at a size smaller than 9 workers. Moreover, if the foreigner is to be the general manager of the firm, he/she cannot participate in the hiring of Mozambican workers because he/she cannot be hired until 10 Mozambican workers are hired. For small firms in general, the quota system may actually be worse than the authorization system.

The quota system can also be particularly punitive for certain professional services firms such as the big 4 accounting and auditing firms which have a relatively large number of foreigners already in partner and senior positions. Some of the big 4 firms believe that the quota system is far too restrictive as they are already above quota and they have pending authorizations for foreign professionals (which can only be negotiated on a case-by-case basis) waiting for approval at the Ministry of Labor.

Both the old labor law and the new labor law include an article recommending that firms in Mozambique create conditions such that qualified Mozambicans can be placed in highly skilled jobs, in positions of greater technical complexity, and in positions of management and administration.¹⁸ While this objective is legitimate, at the current level of skill development in the country, imposing explicit barriers on foreign professionals

include negative opinions) and in reading between the lines to understand the real intentions behind most firms' accounts.

¹⁷ Given the backlog of foreign worker cases at the Ministry of Labor, and with authorizations taking a minimum of 2 months but generally much more than 6 months, many foreigners begin to work at firms in Mozambique under tourist visas. The ministry of labor is unable to police this situation. However, if a violator is caught, then he/she is deported and his/her firm is fined. Catching violators is more likely in firms with bad labor relations where denouncing to the Ministry of Labor may happen, followed by labor inspections to identify violations.

¹⁸ Also, another article explicitly states that foreigners working in Mozambique have the right to equal treatment and opportunities relative to Mozambican workers. But despite this article, the Mozambican government has the right to reserve exclusively for Mozambicans certain functions or activities on the grounds of public interest.

through quotas - with no specification of skill levels – may be counter-productive. Our discussions with stakeholders in all professional services sectors indicated that the foreign worker law is creating problems. They provided evidence that the new communication system has not been automatic in practice and that applications for foreign workers were pending for a long time. IT professionals argued that the binding constraint to the development of the IT sector in Mozambique is getting permits for foreign professionals who are needed because local professionals with sufficient knowledge and expertise are not yet available in many areas.¹⁹

Foreign professionals can be crucial in helping develop local skills, directly through training or indirectly through knowledge and information spillovers in the workplace. Markusen and Trofimenco (2008) show that among manufacturing firms in Colombia, those employing foreign technical experts exhibit substantially higher labor productivity. Foreign professionals can also introduce newer or better services to the marketplace and can stimulate the demand for services in firms which have never perceived that they need for example auditing services or IT services.

The Mozambican government should therefore design policy incentives to allow the hiring of skilled foreign workers beyond the quota limits specified in Box 2. Such foreigners could be encouraged to build local skills of the country: for example by giving lectures at the university, as some experienced foreign professionals currently working in Mozambique apparently already do in law and auditing, or providing training to SMEs through workshops in their area of expertise.

In principle, the physical entry of foreign professionals is not always necessary. Parts of accounting, legal, and other services could be outsourced to other countries within and outside the region, eliminating the need for labor mobility and enable foreign providers to circumvent regulatory barriers. Cross-border trade in professional services, however, is hardly visible in Mozambique. Even for multinationals, legal services are provided by either by law offices operating in Mozambique or by legal advisors employed by the multinationals in Mozambique. The advantage is the local knowledge of a complex legal system. Also for multinationals in Mozambique, accounting and auditing services are performed by the local affiliates of the big 4 accounting and auditing firms. Engineering consulting services also seem to be sourced locally, in some cases to partially foreign-owned firms, but not cross-border.

Box 2. Hiring a Foreign Worker in Mozambique

AUTHORIZATION (Decree 57/2003 - the only legislation in place until end 2007)

- The employment of foreigners by national or foreign firms in Mozambique is subject to authorization by the Ministry of Labor.
- Authorization to employ a foreigner depends on the confirmation by the Employment Centre of the National Institute of Employment and Professional Training of Mozambique that the foreigner (i) fulfills certain criteria (based on academic and professional qualifications) and

¹⁹ The manager of one IT company told us that the labor law had impeded him from bringing into Mozambique two IT professionals with PhD degrees who were crucial for the operation of his business.

- (ii) that no Mozambican or an insufficient number of Mozambicans with the required qualifications are available to do the job.
- The application to hire a foreigner is not generic but rather is made for a specific individual by showing that he/she has the required qualifications.
- The application for the authorization is placed by the firm at the appropriate delegation of employment center of the National Institute of Employment and Professional Training of Mozambique and includes (1) identification of the foreigner and of the category, function, and tasks that he/she will perform, (2) a copy of the employment contract, (3) the foreigner's CV, (4) a certificate of academic or technical-professional skills, (5) the opinion of the firm's union committee, and (6) the foreigner's criminal record (in some cases).
- The application for authorization to employ a foreigner should be accompanied by a fee payment equal to 12% of the monthly remuneration stated in the foreigner's employment contract.
- The firm files for authorization to hire the foreigner and then the National Institute of Employment and Professional Training of Mozambique should reply (conceding or denying the authorization) within 15 days.
- If authorization is conceded, the firm needs to apply for a work permit to be issued at the National Institute of Employment and Professional Training of Mozambique paying 5 times the statutory minimum wage. Work permits are valid for 2 years and can be renewed.

Note that if foreigners are employed without authorization, the firm is fined between 10 and 80 times the statutory minimum wage and the foreigner is suspended until his/her situation is regularized.

COMMUNICATION or AUTOMATIC ADMISSION

1. QUOTA SYSTEM (Law 23/2007)

- A firm in Mozambique can employ foreigners without the need for authorization from the Ministry of Labor subject to the following quotas:
 - Small firms (1-10 workers) – up to 10% of workers can be foreign
 - Medium firms (11-100 workers) – up to 8% of workers can be foreign
 - Large firms (100 workers or more) – up to 5% of workers can be foreign
- The firm needs to notify the Ministry of Labor of the hiring within 15 days providing (1) a letter communicating the admission of the foreign worker and the quota level post-hiring, (2) a copy of the previous month payroll sheet of the firm certified by the National Institute of Social Security, (3) proof of payment of administrative costs regarding foreign hiring (equal to 5 times the minimum wage), (4) 3 copies of the foreigner's employment contract (which cannot exceed 24 months), and (5) the opinion of the firm's union committee.

Note that authorization is still applicable for firms that want to hire more foreign workers than what quota limits allow.

2. INVESTMENT PROJECTS APPROVED BY THE GOVERNMENT

- Firms with special agreements with the government - whose projects have gone through the Investment Promotion Center (CPI – which is Mozambique's FDI promoting agency) - have the authorization to hire a fixed number of foreign workers (which may be above or below the quota). No work permits are required for these cases, but the firm needs to notify the Ministry of Labor within 15 days after the foreign national enters Mozambique submitting 3

copies of the foreigner's employment contract and a certified copy of the investment project authorization by CPI.

3. CASUAL EMPLOYMENT (Decree 57/2003)

- If a firm needs to hire a foreigner for up to 90 workdays in a given year, no work authorization is required. The firm needs only to communicate the hiring of the foreigner to the Ministry of Labor within 15 days of the hiring showing the visa and the passport stamp from the day of arrival of the foreigner.
- The firm needs to inform the National Institute of Employment and Professional Training of Mozambique of the foreigner's departure from Mozambique within 15 days of that departure.
- If the firm needs to hire the foreigner for an additional 90 days, then it needs to present well-founded reasons to request this from the Ministry of Labor who has discretion in deciding whether or not to allow the extension for those 90 days.

Note that this regulation applies to foreigners employed by the head office or by firms represented in Mozambique but based in another country.

5. Filling the Gap: Enhancing Training and Retaining Skills

Domestic professional training capacity is evolving. In particular, there have been interesting changes in public and private capacity in business and social services. The constraints created by upstream weaknesses in primary and secondary education are acute. There are also severe financial constraints to acquiring professional skills and mechanisms need to be created to overcome them.

Integrating regional markets for training could help. But to accomplish this, regulatory harmonization is necessary – so that students can go abroad and have their existing education recognized and return to have their foreign qualifications recognized.

A key issue for policy is: what is preventing the emergence of (private or public) regional hubs that exploit economies of scale in training and fulfill the need for variety? Are there impediments to establishing regional training institutions in South Africa?

5.1 Domestic Training: Demand and Supply

Available evidence suggests that at least in some segments, there is an acute scarcity of professional skills in Mozambique. Such scarcity should provide incentives for Mozambicans to acquire professional skills. Mozambicans seem to be very aware of the labor market benefits of a university degree. Indeed, the main motivation for students to apply to university is the better salaries that result from a university degree. For example, the public sector salary scale in Mozambique explicitly ties higher remunerations to a university degree. Since the incentives for students to acquire professional skills seem to be present in Mozambique, we need to understand why only insufficient numbers of students are able to acquire the skills. We begin by discussing why they are unable to

acquire skills *domestically* and in Section 5.2, we examine why students are not able to acquire skills *abroad*.

The first problem is that the *quality of secondary education* does not equip students with the skills, tools, and knowledge needed to pursue higher education. The main bottleneck in Mozambique is that not enough students move from primary to secondary school, very few students pass through grades 8-10, and even fewer graduate from secondary school. Students that do graduate from secondary school are inadequately prepared. Officials from private and public higher education institutions find that Mozambique secondary school graduates students are ill-prepared in mathematics, physics, and even Portuguese skills. The levels of repetition and drop-out in secondary school remain extremely high, reflecting low levels of student learning. Insufficient improvement in the quality of the primary education (in parallel with significant increases in the quantity) may be to blame for the weak performance of secondary school students.

Not all secondary school graduates who want to pursue tertiary education find places in Mozambican universities because universities are very inefficient, i.e., the rate of graduation is low as students take a long time to graduate (often 6, 7, or 8 years). For example, at *Universidade Eduardo Mondlane* the largest public university in Mozambique, of the new students that started engineering courses in 2000 only 5 graduated in 2005. Therefore, vacancies for new students are often not opened because ‘space’ is taken by the continuously enrolled students and universities lack the capacity and resources to expand, especially in terms of professors and physical locations.²⁰ Our discussions with stakeholders in the accounting and engineering areas indicate that it is difficult for higher education institutions to find professors in those areas. Professionals with experience and knowledge tended to prefer relatively lucrative jobs in the private sector to jobs in the university.

A second major reason why students may not be able to acquire skills domestically is that they and their families cannot afford to pay for higher education and are *credit constrained* in an imperfect capital market. The tuition fees to attend *Universidade Eduardo Mondlane* cost about 4.2 USD per month.²¹ The tuition fees to attend private university in Mozambique cost about 250 USD per month. To put these figures in perspective, we should note that the average minimum wage in Mozambique as of April 1st 2008 is about 80 USD for sectors other than agriculture and fisheries. Also the other important costs for university are accommodation and book costs and perhaps more importantly the foregone income from 5 or more years spent studying.

The system of financing of higher education in Mozambique is currently undergoing a reform which is expected to result in more scholarships for students at public or private universities. A new Institute for Scholarships has been established in April 2008 to

²⁰ In Mozambique, about two thirds of candidates applying to university obtain a placement For *Universidade Eduardo Mondlane* specifically about 3 in every 15 candidates enter. The pressure at that institution used to be higher but was reduced with the opening of various public polytechnic institutes. However, note that students with a grade of 5/20 manage to enter pure science courses at *Universidade Eduardo Mondlane* since there is very low demand.

²¹ The tuition per course at *Universidade Eduardo Mondlane* is about 4.2 USD, and if the student takes 5 courses per semester that implies the approximate cost per month is 4.2 USD.

coordinate the awarding and management of scholarships. For students coming from some of the provinces outside Maputo, the provincial scholarship program financed by the World Bank, Swedish and Dutch donors has over the last 5-7 years provided almost 900 students with scholarships to study at public as well as private universities if their courses are among those identified by the provincial scholarship board as provincial priorities.²² The scholarships cover tuition fees, accommodation, and book costs and travel to the province. However, for students from Maputo there seem to be no scholarships awarded by the Ministry of Education and Culture nor the donors.

Student loan programs currently operate in more than 60 countries across all continents and are becoming an increasingly important financing mechanism for tertiary education. Box 3 discusses student loans and the experience from the World Bank's support for such programs. However, in Mozambique there are no public, for-profit private, or non-profit private institutions offering loans for students to finance their university studies. Vouchers for higher education are also not available.

Some of the officials dealing with tertiary education in Mozambique believe that an even more crucial issue would be to provide subsidies to poor students to go from primary school to secondary school. Then, on a merit basis students could ask for loans for higher education.

Box 3. Student Loans

Until the mid-1990s, there were only a limited number of cost-sharing arrangements between governments and students for financing higher education in developing countries, as governments were reluctant to charge tuition fees or transform their scholarship programs into student loans. However, under pressure of increasing enrollments and in face of increasing per-student costs, cost-sharing arrangements are being embraced by an increasing number of governments in Sub-Saharan Africa (Johnstone, 2001). In Mozambique and South Africa, cost-sharing has taken the form of the introduction of upfront tuition fees at all public institutions. To be equitable, cost-sharing arrangements need to be implemented in parallel with adequate support mechanisms for qualified but needy students through scholarship schemes and student loan programs (Salmi, 2003). Student loan programs are often underwritten by the national government. Since the late 1990s, the number of World Bank higher education student loan projects and related activities has soared. Support has been sought to establish student loan schemes from scratch (Bulgaria, Ethiopia, Hungary, Mexico, and Namibia), improve the performance of existing schemes (Brazil, China, Jamaica, Venezuela), or expand coverage (Mexico).

However, establishing programs that promote accessibility but result in real cost recovery is a challenge. The cross-country evidence shows failures of student loan programs, for example in Ghana, Kenya, Nigeria, and Lesotho (recovery rate lower than 10%). These failures have been mostly attributed to excessive built-in interest rate subsidization and to poor execution and costly repayments. A successful example can be found in the South African National Student Financial Aid Scheme which has been able to expand access while generating cost recovery (Johnstone, 2001). This scheme was given the authority to compel employers to withhold student loan repayments owed by employees with payments in serious arrears, thus facilitating the collection

²² The provinces currently covered by this scholarship program are Cabo Delgado, Gaza, Nampula, Niassa, Sofala, Tete, and Zambezia.

of loan repayments. Overall, there is limited hard evidence and the jury is still out on whether student loan programs can generate sufficiently high loan repayment rates.

There is some evidence that student loan programs can have positive impacts. A study for Costa Rica and Mexico (Salmi, 2003) shows that student loan schemes can actually have a positive impact on the quality of higher education through the eligibility criteria imposed on beneficiaries and beneficiary institutions. Moreover, beneficiaries from Mexico's student loan program SOFES are shown to have achieved better academic performance than their peers, possibly due to their greater awareness of the price and value of their education (Canton and Blom, 2004).

But many pre-conditions are necessary for designing and administering efficient and financially viable student loan programs: transparent eligibility criteria to ensure that any subsidy element be targeted to the most academically and socially deserving students, a close supervision of the academic performance of the student loan beneficiaries, a carefully designed interest rate and subsidy policy to protect the long term financial viability of the program, and efficient collection mechanisms to minimize default (Salmi, 2003). These pre-conditions mean that the implementation of student loan schemes requires institutional capacity which may today be found only in middle-income countries. The implementation of such programs in the near future in low-income countries faces formidable challenges.

A third major reason why students may not be able to acquire skills domestically is that institutions for skills acquisition do not exist or existing institutions have *inadequate capacity*. To address this possibility we briefly describe the professional training capacity in Mozambique and its recent evolution.²³ The country has experienced a significant increase in the number of higher education institutions since 2000, particularly through the expansion of private universities, as well as in the number of students enrolled and graduating. Higher education institutions have also expanded in geographical scope, for example with the recent opening of a public medicine university in Nampula. While the majority of private higher education institutions are domestically-owned, there is foreign (Portuguese) ownership in three universities.²⁴

Focusing on the training capacity for professional skills, Figure 5 shows the number of students enrolled in public and private higher education institutions from 2004 to 2006 in four fields: law and accounting/auditing (combined with social sciences), engineering, health, as well as secondary education teacher training.²⁵ There is clearly substantial increase in the number of students enrolled over this period, with particularly striking growth in secondary education teacher training. But it is also interesting to see that engineering has grown fast, and that in both management/law and engineering categories, private sector participation has significantly increased.

Appendix Table 1 shows a list of the public and private providers of higher education degrees in each of fields of specialization associated with our 4 professional services of interest. In addition to those fields, note that secondary education teacher training is

²³ A detailed description of the evolution of higher education in Mozambique is given by Mario, Fry, Levey, and Chilundo (2003) and in Brito (2003).

²⁴ The three universities are: *Universidade Jean-Piaget de Moçambique*, *Instituto Superior Politécnico e Universitário*, and *Instituto Superior Politécnico e Universitário*.

²⁵ Information on specific professions law and accounting/auditing is available but only for 2004 and 2005.

provided essentially by *Universidade Pedagogica*, a public university and to a much smaller degree by three private universities.²⁶

Note that despite the expansion in training capacity in Mozambique over the last decade, imperfections in the capital market inhibit further investments in training capacity. For example, as noted above, some private higher education institutions seem to have encountered difficulties in obtaining loans to finance improvements training facilities in engineering and other areas.

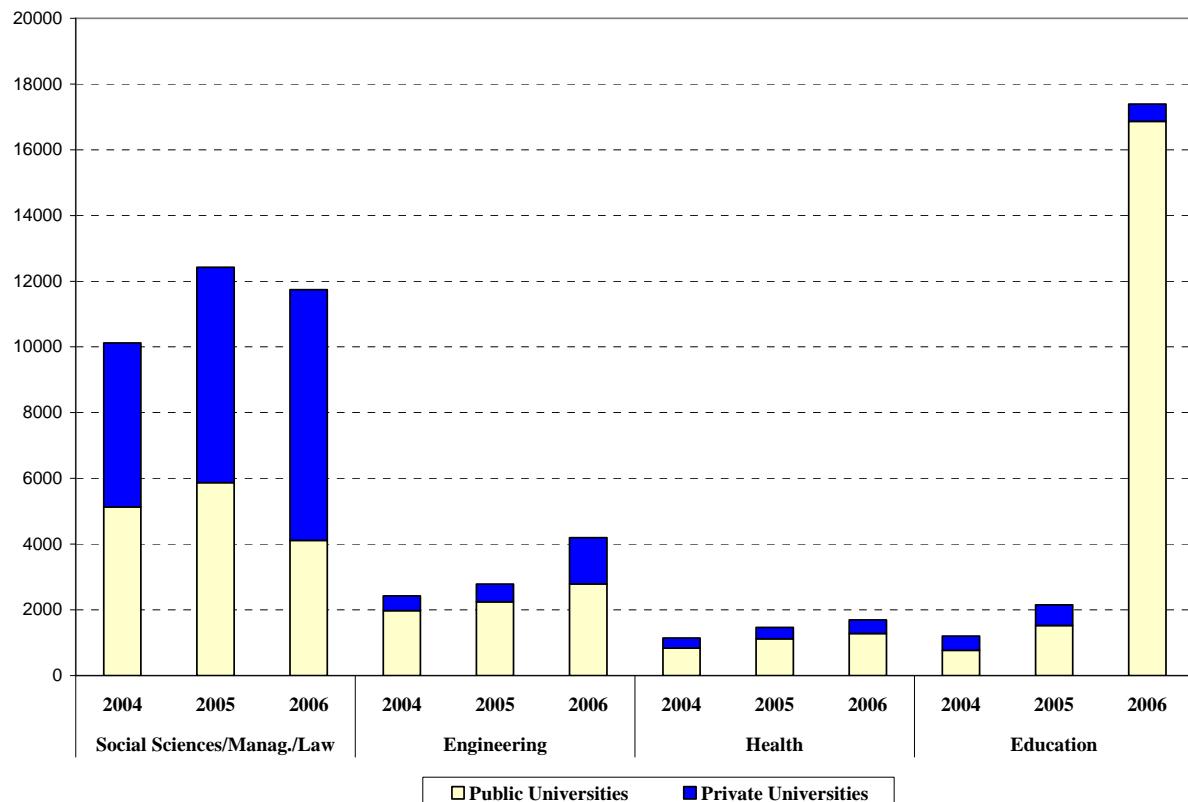
The quality of the professionals graduating from the higher education system in Mozambique is as important if not more important than the numbers of professionals graduating (Brito, 2003). There is a great degree of concern about the quality of numerous private universities which emerged recently in Mozambique due to the phenomenon of ‘moonlighting’ by professors: i.e., the same professors give lectures at the public university and at the private university and therefore have little time to prepare the lectures and even less to pursue their own research. This moonlighting is due to the relatively low salaries paid by public universities to professors. Also very problematic is the private universities’ lack resources to maintain laboratories which are needed to provide high quality degrees in fields such as engineering or dentistry.

Currently, there is no systematic evaluation and no definitions of benchmarking of quality for higher education courses in Mozambique. The only piece of international evidence on the quality of higher education in Mozambique comes from a ranking produced by the association of African universities with the commonwealth, UNESCO, and Erasmus based on an evaluation following international standards and making use of external examinors: *Universidade Eduardo Mondlane* (the only Mozambican university ranked) is 23rd among African universities.

However, general as well as specific efforts regarding quality assurance for higher education courses in Mozambique are underway. In December 2007, the government created the National Quality Assurance Council for higher education and is developing a National Qualifications Framework for higher education and technical and vocational education and training (TVET). Specifically for engineering courses at *Universidade Eduardo Mondlane*, quality assurance is beginning to be implemented through an ongoing accreditation process. The Engineering Guild apparently played an important role in demanding this accreditation process, an example of a productive partnership between the guild and a university to improve the quality of professional qualifications. The Mozambican council of ministers recently approved extending this process of accreditation to other university courses in the near future. The quality and relevance of teaching and research at small public and all private universities in Mozambique is also being promoted through the Quality Enhancement and Innovation Facility (QIF) described in Box 4, within the larger Higher Education Project financed by the World Bank.

²⁶ Those three universities are: *Universidade Politécnica*, *Universidade Católica de Moçambique*, and *Instituto Superior de Educação e Tecnologia*.

Figure 5: Students Enrolled in Mozambican Universities



Source: Ministry of Education and Culture statistics on higher education in Mozambique.

Box 4. Quality Enhancement and Innovation Facility (QIF)

QIF is a competitive fund in operation since 2002 managed by the Ministry of Education and Culture to provide financial support for investments in capacity building and innovation in higher education in Mozambique under three windows (to which the 3 largest public universities cannot apply):

- (1) Academic staff awards: grants to academic staff to enable them to invest in new skills, teaching methods or learning materials, design and introduction of innovations and improvements in curriculum, delivery of courses and academic support of students;
- (2) Research awards: grants to support basic or applied research and develop linkages or other forms of collaboration with the Mozambican productive sector, other national or international research and higher education institutions;
- (3) Institutional awards: grants or repayable loans to higher education institutions to support improvements in quality and efficiency of teaching and management of resources and innovations in the design and delivery of academic programs and courses.

The QIF is demand-driven and is competitive in that only the best proposals are selected for financial support. One recent example of success is the *Instituto Superior de Transportes e Comunicações*, a private university in Mozambique which reportedly managed to improve its

quality substantially for training IT engineers, as well as business and management professionals, as a result of financial support from QIF. A recent evaluation of the QIF by Brouwer et al. (2008) indicates that between 2003 and 2006, 51 projects were implemented as a result of QIF: 6 of type (1), 30 of type (2), and 15 of type (3). The evaluation shows that QIF contributed to (a) increased efficiency through the improvement of library and ICT infrastructures; and (b) enhanced quality through investments in teaching infrastructures, teaching materials, and to a lesser extent training and international networking.

5.2 Demand for Foreign Training

The two main reasons why Mozambican students may not be able to acquire skills abroad are the (1) cost of financing the studies and (2) the lack of an adequate academic background to meet the entry requirements of foreign universities. It is particularly interesting to examine these issues in the context of the SADC countries but we will also discuss some aspects related to other countries.

Regarding the cost of financing, two points are worth making. As mentioned earlier, the banking sector is currently unable to provide loans for higher education studies in Mozambique or abroad. Thus, financing of study abroad needs to originate in the student's family or in scholarships. Scholarships for undergraduate or post-graduate studies of Mozambicans in foreign universities are financed by donor countries but the Mozambican government often supplements the scholarships by paying for students' transport and sometimes an allowance.

While information on the *total* numbers of Mozambican students abroad is currently not available, this situation is likely to change as one of the mandates of the recently established Institute for Scholarships is to collect statistics on the number of Mozambican students studying abroad both with and without scholarships. That Institute does provide some information on the distribution of the current 858 Mozambican students with scholarships across host countries, shown in Table 9.

Table 9: Mozambican Students with Scholarships across Host Countries

	Number of Scholarships
Portugal	440
Algeria	100
Cuba	66
China	58
Russia	56
India	46
Australia	32
Malaysia	15
Morocco	13
Macau	10
Japan	9
Turkey	8
Brazil	3
Tunisia	2
The Netherlands	1

Source: Institute for Scholarships.

Under the SADC protocol on Education and Training Article 7 which is detailed in Appendix Box 1, SADC member countries agreed to recommend to tertiary education institutions in their countries to reserve at least 5% of admissions for students from other SADC countries. The countries also agreed to work towards harmonization, equivalence, and eventual standardization of university entrance requirements. Moreover, countries agreed to facilitate the mobility of students and staff within the SADC region for study, research, and teaching purposes, by working towards the gradual relaxation and eventual elimination of immigration formalities.

However, it is unclear how this protocol is being implemented in practice and in particular how it is being implemented for Mozambican students whose mother tongue differs from that of most other SADC countries. Furthermore, the secondary school training provided in Mozambique is not viewed by other countries as providing students with adequate training to pursue university studies. A recent audit by the SADC Secretariat (SADC (2007)) shows that there are 923 Mozambican students in South African universities, which represent only 2.6% of the 35725 foreign students from SADC countries being trained in South Africa. Despite the recommendation of Article 7, the number of foreign students in smaller SADC countries is negligible. The reasons for this are a lack of information and poor marketing by the institutions themselves but also the fact that most movement of students between SADC countries is undertaken on an ad-hoc basis, and there is no organized system for student movement within the region.

For example, at the post-graduate level, anecdotal evidence suggests that South African universities often require Mozambican students (and those from some other SADC countries) who already have a university degree to do an additional year of studies in order to be eligible to pursue a masters' degree. This happens, although the SADC protocol would state that Mozambican university degrees should be recognized within the SADC region. Improving the quality of secondary education would help Mozambicans access university education within the SADC region and beyond.

Mozambique is also attempting to change its curriculum in order to harmonize its university degrees with other SADC countries. Currently undergraduate university degrees take 3 years to complete in other SADC countries but more years in Mozambique. However, equalizing the number of years for an undergraduate degree across SADC countries can be problematic, since the quality of the last year of secondary school is very different across countries. Some education specialists believe that it is highly unlikely that in Mozambique an engineer can be adequately trained in 3 years given that currently it takes 6, 7, or 8 years for an engineer to graduate and even then graduate quality is not always achieved.

Some other efforts relate to changes in the curriculum content. *Universidade Eduardo Mondlane* is collaborating with Portuguese, Dutch, English, and German universities to change the curriculum (in multiple areas) and respond to the needs of the market. For example, in law, the curriculum is being revised to include some aspects of English law that is prevalent in the other SADC countries.

5.3 Impediments to the Enhancement of National Training Capacity and the Regional Option

If a major reason why only a limited number of students can acquire skills domestically relates to the inadequacy of appropriate institutions or the inadequate capacity of existing institutions, then we need to understand why the market is not responding to the increased demand for professional degrees. Are there regulatory barriers to establishing private higher education institutions in Mozambique? Or is the problem that local demand is not large enough for profitable entry?

The regulatory framework for the opening of private higher education institutions in Mozambique is actually very liberal. Private education in Mozambique is regulated by a 1993 decree that requires only minimal conditions for opening of private university, be it of domestic or foreign origin. Higher education law 5/2003 adds more conditions and defines the collegial bodies that will define the policies for higher education and the type of qualifications (courses) that can be offered. To start activities, private universities need to be registered with the Ministry of Education and Culture.²⁷

Mozambique may be too small to justify the establishment of e.g., a large college of medicine or a large engineering college. Moreover, as mentioned above, expanding the number of vacancies in public universities in Mozambique as a way to address skills shortages is not entirely feasible, at least in the near future, because there are not enough professors or even physical space. In any case, it would be inefficient and costly to have small private universities that cannot take advantage of economies of scale. Inducing foreign universities to open campuses in Mozambique is likely to run into the same problem.

There might be some scope to utilize more fully the potential for South Africa to be a regional hub for higher education and skill formation in the Southern African region, at least in some fields. Indeed, Article 7 in the SADC protocol on Education and Training recognizes that while undergraduate training should be the responsibility of each SADC member country, cooperation and mutual assistance should happen, at least in some fields of study. The protocol recommends that higher education institutions of SADC countries should establish links among themselves for joint or split-site teaching, for collaborative research and consultancy work, and for collaboration in the production of teaching and learning materials to achieve the economies of scale and support the harmonization of academic and professional programs in the SADC region. The SADC protocol also states that member countries agree to establish Centers of Specialization in the SADC region at existing institutions that will be strengthened to be able to offer regional programs in critical and specialized areas and thereby increase the stock of trained personnel in the

²⁷ We noted that many education specialists are concerned with the quality of the many private higher education institutions that have sprung up in Mozambique in recent years. A related recent problem is the emergence of distance learning courses of poor quality offered by foreign universities. Apparently, Mozambican students pay large sums to take those courses and graduate but then the Ministry of Education and Culture does not recognize their degrees.

SADC region. According to the protocol, the regional programs would consist mostly of post-graduate fields of study, but some critical courses such as medicine and engineering would also be offered at the under-graduate level at Centers of Specialization. Supposedly, SADC member countries would agree to support those Centers of Specialization by sending students there and by providing scholarships. It is unclear to what extent these agreements in the SADC protocol have been put into action and to what extent regional training institutions have been established in South Africa.

A recent audit of these efforts that has been undertaken by the SADC Secretariat (SADC (2007)) shows that regional cooperation so far has been weak. The cooperation in higher education and training which has taken place has been on an ad-hoc basis depending on individual student initiative rather than on a regionally-based system.²⁸ The audit does indicate that some SADC countries have institutions that are presently not being fully utilized and that could cater for the needs of other SADC countries.

6. Regulation: The Coming (of) Age of the Guilds?

Professional services are currently regulated by various Ministries. Professional service standards tend to be inherited or international (e.g., in accounting: the national standard is based on the Portuguese and recently an effort has been made to implement IFRS; in medicine). Professionals are in many cases over qualified to serve the bulk of the domestic consumers (rural households or SMEs) and of inferior quality to serve the big firm or rich consumer.

Each of the professions studied here has already or is in the process of establishing a professional guild. These guilds could play a positive role in terms of developing appropriate standards and monitoring quality; but they must resist the temptation to create unnecessary regulatory barriers to entry and to discriminate against foreign professionals and qualifications.

Regional cooperation (e.g. under ESCAFA) can play an important role in developing credible appropriate standards without segmenting markets.

In this section, we assess how professional services are currently regulated in Mozambique. For each of the professional services, we discuss the regulatory framework in place – e.g., who are the regulators and which laws regulate the provision of services – and the importance of professional guilds, touching on the positive role that professional guilds can play in terms of developing appropriate standards and monitoring quality but also cautioning against the negative role they can play in restricting entry and discriminating against foreign professionals and qualifications.

²⁸ For example the lack of harmonization of term times within the SADC region and the lack of harmonization of courses hampers the transfer of students across regional higher education institutions.

6.1 Accounting and Auditing Services

The provision of auditing services in Mozambique is regulated by a decree-law from the Ministry of Finance which requires firms that provide auditing services to employ exclusively chartered accountants. Currently all chartered accountants working in Mozambique are foreigners with the exception of a couple of Mozambicans (whose training and certification were obtained in South Africa) and all the chartered accountants work in the big 4 firms.²⁹ One domestic accounting firm reportedly sent a request to the Ministry of Finance asking to perform small auditing jobs but did not receive a response for more than a year. The firm now performs small auditing jobs informing client firms internally but cannot report those auditing jobs together with the client firm's accounts to the fiscal authorities.

Some of the industry players argue that even if the decree-law did not exist, the market would simply not accept auditing that does not come from an internationally recognized auditor. Also note that a chartered accountant in Mozambique can provide both accounting and auditing services as long as it is not to the same client firm.

To provide accounting services in Mozambique an accountant needs to be registered (legalized) at the Ministry of Finance. Before becoming fully registered, an accountant needs to have a mentor for 2 years accompanying his/her accounting practices. In fact, one of the reasons why more accountants are not able to sign accounts in Mozambique is the lack of mentors that can accompany accountants and allow them to be fully registered at the Ministry of Finance.

The provision of accounting services is regulated by an important legal restriction, which has in principle been revoked but is still applied because the new legislation makes no provision on these issues. The restriction is that a registered accountant working for an accounting firm can sign the accounts of only up to 8 firms while a registered accountant working on an individual basis can sign the accounts of only up to 5 firms. The major problem with this restriction is that does not take into account the size of the firm and the complexity of its accounts.

Some claim that the absence so far of a Guild in Mozambique regulating the accountant and auditor profession has been a problem because there is no institution to which professionals can complain about instances of lack of compliance with ethical and deontological rules. Therefore, the market for accounting services is judged by some of the industry players to be 'a jungle'. There is currently an Association of Internal Auditors (AMAI) but it does not regulate the profession.

The Guild of Accountants and Auditors is scheduled to begin operating in Mozambique in the second half of 2008 and will discipline, license, and certify the

²⁹ There is no precise figure on how many foreign chartered accountants work in Mozambique, but some industry insiders gave an estimate of about 35 foreign chartered accountants.

profession.³⁰ The Guild will be composed of a college of accountants and a college of auditors. The two colleges are combined into a single guild to take advantage of economies of scale and to optimize resources. The Guild will regulate both individual professionals as well as firms providing the services. In the planned statutes of the Guild, foreigners working at the big 4 firms will not be able to belong to the directorial board of the Guild, which may actually be a loss for Mozambique as those foreigners may have experience and knowledge of guilds operating in their home countries.³¹

The current regime for the provision of auditing services in Mozambique is not satisfactory to many of the domestic accounting firms. The Guild plans to break the “monopoly” of auditing services held by the big 4 firms. It plans to regulate the arrival of foreign chartered accountants into Mozambique. Foreign candidates will be submitted to an examination to show that they are adequately familiar with Mozambican legislation. The supposed rationale for this requirement is to guarantee the quality of the services provided in Mozambique, and because Guilds in foreign countries follow the same procedure before foreign accountants are allowed to provide services.

The current restrictions on the number of firms for which an accountant can sign the accounts are also not satisfactory to many domestic accounting firms. The Guild plans to enter into dialogue with the Mozambican government to move towards a system of points taking into account the size of the client firm and the complexity of its accounts.

AMAI is financing 100 Mozambican accountants for national certification and 70 Mozambican accountants for international certification (which requires a university degree). One of the main functions of the upcoming Guild will indeed be to certify accountants and external auditors. The Guild will also evaluate the quality of audit reports completed by the big 4 firms since currently there is no entity in Mozambique which can do that.

The Guild will attempt to obtain regional recognition at the ISCAF and later to get international recognition at the ICAF, since the latter takes a longer time. For example, the Guild needs to adopt international codes of ethic to become part of IFAC. For this purpose, the initial statutes of the Guild will incorporate requirements from the IFAC.

Accounting and Auditing Standards

The majority of firms in Mozambique follow national accounting standards (*Contas de Moçambique*). These standards follow the Portuguese accounting standard which is of the Napoleonic type and is not seen as flexible. It does not subscribe to the international standards on depreciation, on R&D expenditures, nor on financial provisions.

³⁰ A guild is an ‘association’ of persons of the same trade or pursuits, formed to protect mutual interests and maintain standards.

³¹ A problem reported by domestic accounting firms concerns the quality of accounting services provided by the big 4 firms: since the strength of the big 4 firms is in providing auditing services, accounting is a marginal business for them and the services provided can be of lower quality. Some anecdotal evidence showed that client firms that used to outsource their accounting services to the big 4 firms stopped doing so and turned instead to purchase accounting services from domestic accounting firms.

A new national accounting standard was introduced on Jan. 1 2007 to respond to the growing demands by the users of financial reports in face of the process of globalization of economic activities. The objectives of this new standard are to improve the quality of accounting and the presentation of financial information, and to come closer to International financial reporting standards (IFRS). As of 2008 IFRS are required in Mozambique for the accounting of the central bank, the banking sector, and foreign exchange houses. Multinationals and other large Mozambican firms already use IFRS in their accounting. For these types of firms, IFRS are appropriate and are not difficult to satisfy. The Mozambican government is committed to the implementation of IFRS for all sectors of the economy (under a Financial and Technical Assistance Project financed by the World Bank). The expected benefits from IFRS are more comparability of Mozambican financial reports to other countries; more transparency that will make firms more attractive for investors and for credit-providers; improvement in governance by making accurate and transparent financial reports available to corporate management, shareholders, and regulators.

The plan of transition to IFRS is such that by 2009 all insurance companies and large firms should adhere to IFRS, by 2011 all medium firms should adhere to IFRS. Most of the players consulted believe that it is too ambitious to have all large firms adhere to IFRS by 2009 and it may be an illusion to think that medium firms in Mozambique will be able to adhere to IFRS by 2011 (given that IFRS differ from the Mozambican standards in various important respects). KPMG and others are currently involved in a series of training efforts regarding IFRS. Some believe that the biggest problem for the implementation of IFRS will be insufficient human resources with capacity. Others believe that accountants can assimilate IFRS through courses but the major problem will be technology, i.e., the costs and complexity of the software adjustments needed to implement IFRS. It is widely believed that for SMEs in Mozambique even the national accounting standards are too complex (see Box 5).

The desirability of accounting standards for SMEs which are different from those for large firms suggests that these differentiated services may be most efficiently delivered by different classes of accounting professionals. As such Technical and Vocational Education and Training (TVET) can play a role in generating appropriately qualified professionals. A current World Bank financed project to develop TVET in Mozambique is expected to introduce a medium-level program for training accountancy technicians in the technical institutes of Beira and Maputo.

Box 5. Developing Appropriate Standards for Accounting and Auditing

In accounting and auditing, there is a need to develop appropriate standards for SMEs because International Financial Reporting Standards (IFRS) and International Standards on Auditing (ISA) are primarily directed at the accounting and reporting needs of listed companies and other large public interest entities, such as non-listed financial institutions and major state-owned enterprises. At the same time, Mozambique uses the inherited Portuguese qualifications and training requirements in auditing and accounting.

The majority of businesses in Mozambique are not listed but private limited companies or unincorporated small business entities for whom the cost of employing accountants and adopting and applying IFRS or undergoing audits outweighs the benefits and becomes one more barrier to their entry into the formal economy. The International Accounting Standards Board (IASB) has in fact begun a slow process of developing more appropriate standards for SMEs. However, even if an IFRS-based SME accounting standard were issued, it is far from certain that it would respond to the needs of African SMEs. It is, therefore, necessary to develop accounting standards that are locally appropriate and corresponding qualification and training standards for professionals, as well as to assess the desirability of subjecting SMEs to mandatory audits.

Since the needs of regional countries are similar, appropriate standards for professional services like accounting are best developed at a regional level, with regionally agreed qualification requirements and regionally administered examinations, and only supplementary national elements. In accounting, while international standards remain appropriate in specific cases, for example for firms that operate internationally or that wish to list on the stock exchange, a regional accounting standard would offer a credible alternative for those cases where an international standard is more burdensome than necessary, as is the case for SMEs.

The development of such a standard presents Mozambique and other countries in the region with an opportunity to address the need for a balance between stringency and access, between integration and local appropriateness, and between rules and discretion. The lower tier standard is best determined at a regional level, because:

- The needs of SMEs in countries of the region are similar. The country-specific content is not expected to be large because there is a high universal content to accounting and auditing needs. Hence horizontal differences between countries can be addressed through country-specific content pertaining to law and taxation. In this respect, developing supplementary local content in the syllabus should be encouraged, given that local law was not previously being taught. Malawi and Botswana, for example, have UK-based accountancy examinations but with local law and tax replacing the British modules.
- There is more scope to draw upon regional expertise and less duplication of effort, and less scope for regulatory capture at the regional level. In contrast, if this lower tier standard(s) is developed at a national level, it would lead to an unnecessary duplication of efforts in skill-scarce countries, and there is a risk that its credibility could be undermined if there is inadequate capacity to design, promote, and implement national standards, or if it allows undue influence by local vested interests.
- It will be possible to create a regionally integrated market. In contrast, setting heterogeneous standards in the region would segment the market further. Segmentation could impose a significant cost on countries like Mozambique in terms of competition and diversity of services, as well as opportunities for regional training.
- A framework for regional cooperation already exists in the form of the Eastern Central and Southern African Federation of Accountants (ECSAFA). Mozambique is listed as a temporary member of ECSAFA and could benefit from the development of the ECSAFA Guide on Accounting for SMEs. This regional effort should be useful unless and until the IASB issues an acceptable standard for SMEs. If it has not already done so, Mozambique could also use the ECSAFA regional structure to obtain a mining accounting standard similar to the one in use in Tanzania. The ECSAFA region recently (November 2005) developed common training standards for accounting technicians.

.2 Legal Services

The practice of law is an independent activity that is not regulated by the Ministry of Justice. The Lawyers Guild (*Ordem dos Advogados de Moçambique*) established in 1994 regulates individual lawyers but does not regulate law offices. The statutes of the Lawyers Guild have not been revised and its head has not changed since its creation. The March 2008 elections at the Guild have resulted in a new head for the institution and along the way some possible revision of the statutes to adjust the structure and functioning of the Guild to the social, political, and economic developments of Mozambique since 1994.

There is no specific legislation regarding the provision of legal services in Mozambique. A lawyer (or a group of lawyers) does need to register the law office with the Ministry of Industry and Commerce in order to obtain a license (*alvara*) for the provision of legal services and a municipal license for the office. There is no obligation to register with or require authorization to provide services from the Lawyers Guild. As a courtesy, some foreign law offices communicate informally to the Lawyers Guild before they open their offices in Maputo. Lawyers working for the public sector can also continue private practice of law, with the restriction that they do not enter into court cases against the Mozambican state. There are no restrictions on the number of hours that a lawyer working for the public sector can use to practice law privately.

The regime for the provision of legal services in Mozambique is quite liberal. However, that is not welcomed by all. One professional told us that specific regulations on the conditions for opening of a law office should exist because under the current regime even a group of nurses would be able to open a law office in Mozambique. The only question then would be whether the market would ‘punish’ them for not being capable of providing legal services.

Many members of the Lawyers Guild, especially older lawyers, are not happy with the competition from the legal departments of the big 4 firms and some think that the big 4 firms should not be able to provide legal services. The Lawyers Guild has no jurisdiction over those legal departments, however. Ironically, most, if not all, of the lawyers working in the legal departments of the big 4 firms are actually members of the Lawyers Guild.

Interestingly, the legal departments of the big 4 firms also criticize the Lawyers Guild. Since the Guild does not regulate the services provided by law offices, these offices often end up providing various services for a client - negotiating contracts, managing projects. International regulations on independence, such as for example Sarbanes-Oxley, do not allow the legal departments of the big 4 firms to provide different services to same client.³²

³² Note that when a lawyer working at legal department of a big 4 firm produces a judicial appraisal he/she signs it as an individual because this is required by the Lawyers Guild. This stands in contrast with audit reports produced by auditors working at the big 4 firms because those are signed not by the individual auditor but by the firm.

Several critics also argue that the role of the Lawyers Guild in regulating the law profession is weak. When a member makes a formal complaint – for example regarding the practice of law by foreigners that do not belong to the Guild – no one in the Guild responds nor pursues the complaint. In principle, a lawyer needs to be a member of the Lawyers Guild in order to practice law in Mozambique. In practice several foreign lawyers practice law in Mozambique but are not members of the Lawyers Guild (e.g., Adrian Frey from Mozlegal). Only lawyers that are members of the Guild can present cases in court.

Someone obtaining a university degree in law from a Mozambican university (either a Mozambican or a foreigner) can become a member of the Lawyers Guild upon graduation and needs to undergo a 2-year internship under a patron before becoming an actual lawyer. The Guild recognizes the law degrees obtained from all public and private universities in Mozambique. A foreigner obtaining a law degree at a foreign university cannot do the internship in Mozambique, he/she needs to come to Mozambique already as a lawyer. A foreign lawyer can become a member of the Lawyers Guild if there is an agreement between the Mozambican Guild and the foreign lawyer's home country Guild.

Currently the only agreement that exists is between Mozambique and Portugal but it has been suspended since 2007. The agreement states that 10% of the members of the Mozambican Lawyers Guild can be Portuguese while 10% of the members of the Portuguese Lawyers Guild can be Mozambican. In Mozambique, the 10% quota of Portuguese lawyers is filled.

The suspension of this agreement was initiated by the Mozambican lawyers' guild as a response to situation, judged to be too unbalanced, where a large number of Portuguese lawyers were practicing law in Mozambique while only very few Mozambicans lawyers practiced law in Portugal. However, the small number of Mozambicans practicing law in Portugal is apparently due to the fact that few even try for fear of not being able to attract sufficient business in the competitive and saturated market for legal services in Portugal. This suspension is causing problems for some law offices that are unable to legalize Portuguese lawyers practicing in Mozambique. Also, this suspension may have negative short-run consequences since it may prevent the hiring of experienced Portuguese lawyers who may be able to satisfy the current needs of the Mozambican economy that cannot be fulfilled by nationals. For example, a large law office stated that its expansion efforts were thwarted by the inability to find sufficiently experienced lawyers in Mozambique for the tasks at hand. The suspended agreement among Mozambican and Portuguese guilds is supposed to be renegotiated in a near future.

Law offices and lawyers in Mozambique are generally not members of any international association of lawyers because that membership is too expensive and the law offices and lawyers believe it is not worth it. An exception is a law office which belongs to the Miranda Law alliance.

In addition to lawyers, legal technicians (*tecnicos jurídicos*) and legal assistants (*assistentes jurídicos*) can provide legal services in Mozambique in areas where there is an insufficient number of lawyers, as determined by the Guild of Lawyers. Legal technicians and legal assistants are public servants, and in order to be legally eligible to provide services, they need to be registered with the Judicial Patronage and Assistance Institute (IPAJ) – a public institute, created through law 6/94 and subordinate to the Ministry of Justice, committed to providing free legal services to citizens without the means to pay for them. As of 2007, the IPAJ has 84 legal assistants and 1052 legal technicians and has delegations in all of Mozambique's provincial capitals (Alfai, 2007). In criminal cases and in cases outside Maputo, it is almost exclusively legal technicians and legal assistants from IPAJ who represent clients in court. In theory, legal technicians and legal assistants would provide services only to individuals. But in some of the provinces, legal technicians and legal assistants actually provide services to private firms (Levy, 2002). And while the services from IPAJ should in theory be provided free, some clients pay the IPAJ professionals handling their cases.

The lack of legal technicians capable of providing permanent pro-bono legal services to the poor is one of the main constraints faced by the IPAJ. The institute is currently undergoing a restructuring process through which it aims to address the human resource constraint. In May 2008, the IPAJ signed a memorandum of understanding with the Catholic University in Nampula under which 3rd and 4th year law students interested in working with IPAJ will be allowed to do so. The establishment of further partnerships between the IPAJ, universities offering law degrees, and the lawyers guild may be necessary to ensure an improvement in the quality of the IPAJ's human resources while at the same time providing an opportunity for law students and recent law graduates to gain experience in the practice of law.

6.3 Engineering Consulting and IT Services

The Engineers Guild (*Ordem dos Engenheiros de Moçambique*) regulates individual engineers in Mozambique but does not regulate firms providing engineering consulting services. The Guild is designed to be a channel for engineers to improve their performance, to promote engineering of high quality in Mozambique, to value the engineering profession and to fight for dignity and professional ethics.

There is no specific legislation regarding the provision of engineering consulting services nor IT services in Mozambique. A firm wishing to provide such services needs to register with the Ministry of Industry and Commerce and obtain a license (*alvara*) for the provision of services and a municipal license for the office. There is no obligation to register with or require authorization from the Engineers Guild.

According to the law that created the Engineers Guild in 2002, only engineers that are Guild members can provide engineering services in Mozambique. However, this law is not being entirely respected and the Guild is attempting to correct the situation. A foreigner (or a Mozambican) that obtained his/her engineering degree outside

Mozambique can become a member of the Engineers Guild as long as he/she obtains recognition of his/her foreign engineering degree from the Ministry of Education. The process of recognition has been instituted to avoid the possibility of inappropriately qualified engineers providing their services in Mozambique. The only exception to this rule concerns an agreement with the Portuguese Engineers Guild whereby engineers that are members of Portuguese Engineers Guild can automatically become members of the Mozambican Engineers Guild. The Mozambican Engineers Guild is attempting to negotiate a similar type of agreement with other countries such as South Africa.

The Engineers Guild requested and is collaborating with the Ministry of Education and Culture in the recent pilot project of accreditation of the seven engineering courses taught at *Universidade Eduardo Mondlane*. The Guild requested this accreditation to guarantee a certain quality to the engineers that graduate and get automatic registration at the Guild. The Guild intends to extend the accreditation process to all the engineering courses taught in Mozambique in other universities. Currently, Mozambican engineers face difficulties in obtaining recognition of their degrees in foreign countries, such as Portugal or South Africa. The program for accreditation of engineering courses in Mozambique following international standards is meant to address this difficulty.

Inappropriate standards are often applied in the area of engineering. International tenders for roads or electrification projects for example require that only engineers with 15 years of experience be hired, to satisfy the guidelines imposed by international financiers, particularly the World Bank. Since engineers with such experience are in very short supply in Mozambique, the use of foreign engineers is the only possibility. While the presence of experienced foreign engineers as team leaders may be desirable, stringent international standards unnecessarily prevent recent engineering graduates from acquiring valuable work experience. The appropriateness of international standards in tenders needs to be assessed. For example, imposing standards on the final output or outcome would grant greater freedom in the composition of teams and encourage the build-up of a skills base in developing countries.

The current World Bank financed project to develop TVET in Mozambique is expected to introduce training for middle-level professionals capable of providing engineering-related services. In particular, the *Instituto Industrial de Maputo* will train individuals for the occupation of industrial maintenance technician and automation/instrumentation technician.

6.4 Medical Services

To practice medicine privately in Mozambique, a graduate in medicine needs to be registered at the Ministry of Health by submitting a graduation certificate, a CV, and the authorization from the current place where he/she is working. A graduate then receives his professional certificate (*carteira*). Nurses, assistant nurses, and basic medical

technicians also need to apply for a professional certificate. These professional certificates need to be renewed annually.³³

The Doctors Guild (*Ordem dos Médicos de Moçambique*) has begun to operate in mid 2008 and will take over the Ministry of Health's function of issuing the professional certificates.

The process of opening a private health facility begins in the province where it will be located, i.e., it requires a provincial appraisal. The opening of different types of private health facilities is regulated by different entities: (1) health centers, health posts, doctors' offices by the provincial governor, and (2) clinics by the Ministry of Health. Law 26/91 and decree 9/92 define what is a health center, a health post, a doctors' office, and a clinic. These laws are currently being revised. To open a private clinic in Mozambique the project is evaluated by a technical commission from the Ministry of Health, which reviews the CVs of the doctors that will work at the clinic to see if they have the specializations that the private clinic intends to provide services on. For a doctors' office, the owner has to be a doctor, but that is not the case for a private health center, a health post, or a clinic.

The Ministry of Health does not interfere much with the private activities of doctors in Mozambique. Inspections to supervise quality arise only when there is a complaint. This liberal approach is actually not viewed as satisfactory by some health officials who believe that the Ministry of Health should supervise more closely the activities of private health facilities in Mozambique.

A foreign doctor can also get registered to practice private medicine in Mozambique by submitting to the Ministry of Health: declaration of registration in the doctors association of the origin country, evidence of the absence of a criminal record, a copy of the passport, and 2 reference letters. This documentation is evaluated by a technical commission which can then issue a professional certificate (*carteira*). The Mozambican government has inter-governmental agreements with Cuba and Spain to bring foreign doctors to Mozambique – mostly to practice medicine in the public sector. In face of the acute shortage of specialist doctors in Mozambique, the government has an inter-governmental agreement with South Africa to send there patients for specialized treatment that is not available in Mozambique.

While a large number of experienced medical specialists who are members of the Doctors Guild give lectures at *Universidade Eduardo Mondlane*, collaboration between the two institutions in matters of curricula revision is not as clear as that for the engineering profession. *Universidade Eduardo Mondlane* recently approved a new curriculum for medical training, including a problem-based learning approach and a reduction in the number of years of training, replacing the current undergraduate degree

³³ As of 2008, the cost of renewal is: (1) 304 meticais for doctors and nurses with university degrees, (2) 104 meticais for assistant nurses with middle level degrees (equivalent to secondary education), (3) 54 meticais for basic medical technicians with basic degrees (equivalent to the 10th year in secondary school).

(lasting 6 years) by a new bachelor's degree (lasting 3 years). This decision was opposed by the Doctors Guild whose views were apparently not taken into account and who argued that such a curriculum change would need more time to be implemented. It remains to be seen how the curriculum change process will progress and what its longer term implications will be.

For Mozambican students obtaining their medicine degrees abroad, the Ministry of Education needs to recognize their degree, and verify that the diploma is genuine. The Ministry of Education is supposed to take no more than 30 days to recognize a degree from a well-known foreign university – whether it is undergraduate, masters, or PhD. But the process can take longer if the university is less well known or if any other problems arise in the recognition. In some cases, students need to undertake some additional years of classes at *Universidade Eduardo Mondlane* in order to get their degree.

Medical services are also provided by other middle-level health professionals, as described in Box 1.

7. Priorities for Policy Action and Regional Cooperation

This paper studied the functioning of markets for professional services, including accounting and auditing, corporate legal, engineering, and certain medical services, as well as the upstream educational and training services for these professions. All types of professional skills are limited in Mozambique. But our findings suggest a vital distinction between professional services where there is already significant private demand and services where there is as yet limited private demand.

High (or increasing) prices of quality auditing, engineering or legal services from experienced professionals (or evidence of rationing of services) suggest high demand relative to the supply of these professional services, and that this inadequacy is becoming a constraint on further economic expansion. To an extent, market signals are already provoking a response by creating incentives and opportunities for individuals to acquire skills and remain in Mozambique. For example, in engineering the number of new students has substantially increased between 2004 and 2006.

The problem, of course, is that the spontaneous response in the supply of skills is weak and slow – because of imperfections in the capital market, scarcity of critical complementary inputs, such as the skills of educators and trainers, and weakness of upstream school education. The government will need to help remedy these underlying capacity constraints.

Where, however, there are no signs of high or increasing prices (or of rationing of services), it is fair to assume that either there is currently limited private demand relative to the supply of services or even that a market for the relevant service does not exist. We distinguish between at least three types of situations:

- (a) given current rates of growth, the derived demand for management consultancy services for example is probably in line with current supply (both are low); or
- (b) given current levels of information, most firms are not aware of the benefits of IT services for example but better information would lead to increased demand; or
- (c) given the current distribution of income in Mozambique, few people can afford the services of doctors or accountants as currently certified but there would be significant demand for cheaper, less elaborately trained professionals.

In none of these circumstances is encouraging the education or training of more professionals a solution by itself. Public support for professional education in the absence of increased local returns to skills will be counter-productive as the professionals will simply go where their services are most valued, i.e., emigrate.

In situation (a), it is best to wait until Mozambique's economic growth (or its anticipation) generates an increased demand for skills which will create incentives to acquire skills and stay in (or return to) Mozambique. In the other two situations, there is a case for policy intervention. In situation (b), there is market failure due to inadequate information, and it would make sense to educate firms about the benefits of IT services. One means could be initially to allow liberal imports of IT services so that the benefits become evident to more firms. In situation (c), there is a regulatory failure, and it makes sense to develop more appropriate qualifications for professionals, i.e., qualifications that are more attuned to the needs of most households (e.g., medical technicians who serve the poor) and firms (e.g., accounting technicians who serve SMEs).

Four areas for policy action

Given these differing circumstances, the evolution of markets for professional services in Mozambique will be influenced by policy in four areas: education, immigration, emigration, and regulation. In each area, regional and international cooperation would ideally complement unilateral action by Mozambique.

Where the inadequacy in professional skills is already being felt or can be clearly anticipated, weaknesses in education at various levels should be addressed. Weaknesses in upstream school education seriously handicap Mozambican students in their pursuit of higher education. For example, it is common for Mozambican students to take 8 years to complete an engineering degree that should be completed within 5 years. Weaknesses in professional education and training also require policy action. For example, the curriculum is often not attuned to the needs of industry: there are too few engineers or engineer technicians in Mozambique with knowledge of road maintenance and not enough tax lawyers to meet the needs of foreign investors. The market is not conveying adequate information and the relevant stakeholders (private sector, universities, and guilds) are failing to coordinate. For example, universities and the private sector rarely collaborate to arrange internships for engineering students which would help them acquire the practical training that universities cannot provide but employers desperately seek.

Enhancements in national *education capacity* must be complemented by efforts to facilitate the emergence of regional hubs for higher education and skill formation in the Southern African region. Such hubs can reduce the costs of education by exploiting economies of scale and help fulfill the regional need for a variety of specialized skills. South Africa's active involvement and support for such hubs would ensure that even as it draws labor, unskilled and skilled, away from the rest of the region, it has a positive net effect on the skill endowments of its neighbors by contributing to regional education and training. While linguistic differences may limit Mozambican students' enrollment in regional institutions, such institutions could play a valuable role in advanced specialized education which could only be provided at great cost in Mozambique.

In order to tap into the regional or global pool of skills, Mozambique needs to reconsider its *immigration policy*. It is not in Mozambique's interest to cut itself off from the regional and international market for skills. While there may be an interest in limiting the entry of foreign professionals in order to create opportunities for domestic professionals, such restrictions could undermine growth by penalizing industrial users of professional services in Mozambique. Restrictions on foreign entry also stifle the flow of information about new services and their benefits and deprive local professionals of valuable learning opportunities. Moreover, foreign professionals often share their knowledge and experience by engaging in local education and training. For example, a handful of experienced foreign professionals working in Mozambique lecture university students in law and auditing, and more could be induced to do so. Therefore, a more constructive policy would be to allow more liberal entry of foreign professionals.

As noted above, all the education and training will provide few downstream benefits if the professionals simply leave, i.e., if professional brain-drain from Mozambique continues. The ultimate remedy for this problem is the emergence of better opportunities in Mozambique which will come with economic growth. But there are bound to be situations where *emigration* is privately profitable but socially undesirable. In such circumstances, a balance between private and social interest could be struck by granting individuals the opportunity to earn and learn abroad on the condition that the stay abroad is temporary. Temporariness cannot be ensured by Mozambique unilaterally but may be accomplished through cooperation with destination countries. Mozambique can explore if Portugal and South Africa, the two major destinations, would agree to grant non-extendable visas to certain categories of Mozambique professionals – even though this may not be in the destination countries own interest but because of their broader commitment to development in the region. Cooperation agreements could be modeled along the lines of those between the Netherlands and Poland (Box 6).

Box 6. Experience with Bilateral Cooperation on Migration

There is limited evidence of bilateral cooperation on migration, and the few examples pertain to unskilled labor. However, Mozambique can draw some lessons from some precedents involving the migration of the skilled. Usually, cooperative agreements between source and host countries specify temporariness of the initial employment opportunities but they do not guarantee against

long-term or permanent migration, for example through extensions of the initial employment contract or an alternative employment offer.

Poland and Netherlands launched a joint pilot project titled “Polish Nurses in the Netherlands; Development of Competencies” for the recruitment of Polish nurses to work in Netherlands. The stated objective of the project is twofold: to make a contribution to the personnel shortages of the Dutch health institutions and to enhance the competence of Polish nurses. The project involves temporary migration of Polish nurses for a period of up to 2 years. Furthermore, proper preparation before departure (including language training) was required and the governments committed themselves to facilitate also the process of return and reintegration of the nurses in the Polish labor market. A recent evaluation of the project by the International Organization of Migration (IOM) shows mixed results both in terms of return migration of the nurses to Poland and knowledge acquired while working in the Netherlands.

South Africa and the U.K. signed a bilateral agreement in 2003 to facilitate exchange of information, advice and expertise in the area of healthcare. Currently, the agreement does not address the issue of the broader economic migration of healthcare workers from South Africa to the U.K. but it does promise an *ex ante* commitment by the two countries to keep the exchange of professionals truly temporary. It is noteworthy that the agreement was in part inspired by South Africa’s concern over the drain of health care skills to the U.K.

Finally, the emergence of professional guilds in Mozambique offers an opportunity but also creates a risk. The opportunity is for the guilds to create a framework for *regulation* that is both effective and appropriate to the needs of Mozambique. This would involve, in particular, cooperation with regional organizations to develop standards for services and service professionals which reflect the needs of the poor and SMEs, and not just of the minority of affluent consumers and large firms. Such standards would have a double benefit: the service would be more affordable and there might be weaker incentives for the service provider to emigrate abroad or from rural to urban areas. Guilds can also take the lead in creating greater awareness among firms of the benefits of using professional help in areas like accounting and information technology. The risk of the emergence of the guilds is that they will seek to protect the interests of their constituents by creating regulatory barriers to entry for foreign or foreign-trained professionals and hence segment the regional market.

As noted above, regional and international cooperation would ideally complement unilateral action by Mozambique. Regional cooperation is most clearly needed to facilitate the emergence of regional hubs for higher education and skill formation in the Southern African region. The development of appropriate standards may also be more feasible and desirable if undertaken regionally. At the same time, harmonization and/or mutual recognition of qualifications and professional licensing requirements would lead to the creation of a regionally integrated market for both training and professional services. In other areas, cooperation will need to be bilateral, e.g. on migration with destination countries such as South Africa and Portugal.

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Appendix

Appendix Table 1: Professional Degrees and Higher Education Institutions in Mozambique

Accounting/Auditing/ Management/Economics	Law	Engineering	Medecine/Nursing/ Dentistry/Pharmacy
Universidade Eduardo Mondlane (UEM)			
Instituto Superior de Contabilidade e Auditoria (ISCAM)	<i>Instituto Superior de Ciências e Tecnologias de Moçambique (ISCTEM)</i>	Escola Superior de Ciências Náuticas	Universidade do Lurio (started in 2007)
Instituto Superior Politécnico de Manica (starting in 2008)	<i>Universidade Católica de Moçambique</i>	Instituto Superior Politécnico de Tete	Instituto Superior de Ciências de Saúde
Instituto Superior Politécnico de Tete (starting in 2008)	<i>Universidade Jean-Piaget de Moçambique</i>	<i>Instituto Superior de Ciências e Tecnologias de Moçambique (ISCTEM)</i>	<i>Instituto Superior de Ciências e Tecnologias de Moçambique (ISCTEM)</i>
<i>Instituto Superior de Relações Internacionais (ISRI)</i>	<i>Universidade São Tomás de Moçambique</i>	<i>Instituto Superior Politécnico e Universitário</i>	<i>Universidade Católica de Moçambique</i>
<i>Instituto Superior de Ciências e Tecnologias de Moçambique (ISCTEM)</i>	<i>Universidade Politecnica</i>	<i>Universidade Jean-Piaget de Moçambique</i>	<i>Universidade Jean-Piaget de Moçambique</i>
<i>Universidade Católica de Moçambique</i>	<i>Universidade Técnica de Moçambique</i>	<i>Universidade São Tomás de Moçambique</i>	
<i>Universidade Jean-Piaget de Moçambique</i>		<i>Instituto Superior de Transportes e Comunicações</i>	
<i>Universidade São Tomás de Moçambique</i>		<i>Universidade Politécnica</i>	
<i>Instituto Superior de Transportes e Comunicações</i>			
<i>Universidade Politécnica</i>			
<i>Universidade Técnica de Moçambique</i>			

Note: In italics we denote private higher education institutions.

Appendix Box 1. SADC Protocol on Education and Training – Article 7

(A) Access to Universities: Student and Staff Mobility

1. Member States agree to recommend to universities and other tertiary institutions in their countries to reserve at least 5% of admission, for students from SADC nations, other than their own.
2. Member States agree to work towards harmonization, equivalence, and eventual standardization of University entrance requirements.
3. Member States agree that in order to prevent costly repetition of courses taken at universities within the Region and in order to contribute towards the mutual recognition of qualifications throughout the Region, universities shall be encouraged to devise mechanisms to facilitate credit transfer from one University to another within the Region.
4. Member States agree that it is desirable to work towards the harmonization of the academic years of universities in order to facilitate staff and student mobility.
5. Member States agree that within ten years from the date of entry into force of this Protocol, they shall treat students from SADC countries as home students for purposes of fees and accommodation.
6. Member States agree to facilitate movement of students and staff from the Region for purposes of study, research, teaching and any other pursuits relating to education and training. To this end, Member States agree to work towards the gradual relaxation and eventual elimination of immigration formalities that hinder free student and staff mobility.

(B) Under-Graduate Studies

1. Member States agree that whilst education and training at under-graduate level shall continue to be largely the responsibility of each Member State, co-operation and mutual assistance is possible and shall take place in some fields of study which can be agreed to by the institutions concerned. To this end, Member States agree to recommend to their universities:
 - (a) to cooperate in the design of academic programs where appropriate, in particular in programs which are jointly taught;
 - (b) to establish links between themselves bilaterally and multilaterally for purposes of joint or split-site teaching, collaborative research and consultancy work, and for other academic activities where appropriate. The format, content and implementing modalities shall be worked out by the concerned universities between themselves;
 - (c) to collaborate in the production of teaching and learning material, such as textbooks, computer software and others in order to achieve the economies of scale and to support the move towards harmonizing academic and professional programs in the Region as necessary;
 - (d) to promote student and staff exchange program negotiated on a bilateral and multilateral basis by the sending and receiving universities for educational purposes and to promote cultural ties and engender commitment to the Region;
 - (e) to increasingly make use of external examiners from the Region as this shall not only contribute towards the building of a regional community of scholars but shall also lead to the development of comparable standards in higher education in the Region;
 - (f) to encourage and support the creation of regional professional associations to enable staff to exchange views, ideas and experiences on their disciplines, and thus enable them to develop top quality programs which are relevant to the development of the Region;
 - (g) to notify the sub-Sector about bilateral and multilateral cooperative arrangements agreed with other universities in the Region for purposes of sharing information and experiences.
2. Member States agree that where necessary and appropriate, but without prejudice to the normal admission requirements, socially disadvantaged groups shall be given preference in admission to

fields of study where they have not featured prominently. Further, governments shall, where necessary, provide special scholarships for students from socially disadvantaged groups.

3. Member States agree that universities shall ensure that the content, quality and relevance of their under-graduate degrees shall be acceptable to graduate schools and employers in the Region for further study and for employment.

4. Member States undertake to provide, where necessary, resources to enable their universities to develop high quality under-graduate programs through the provision of the necessary teaching and research requisites such as qualified staff, physical infrastructures, library holdings, equipment and in particular scientific and information technology equipment.

(C) Post-Graduate Studies

Admissions

1. Member States agree that an acceptable qualification as determined by the receiving institution, shall constitute a sufficient entry requirement into a post-graduate degree program of a University in the Region.

2. Member States agree that the actual numbers admitted shall reflect a more significant mix of students from SADC countries than that provided for at under-graduate level.

3. Member States agree that where necessary and appropriate, but without prejudice to the normal admission requirements, socially disadvantaged groups shall be given preference in admission to fields of study where they have not featured prominently. Further, governments shall, where necessary, provide special scholarships for students from socially disadvantaged groups.

4. Member States undertake to provide the necessary resources to enable their universities to develop quality post-graduate programs through the provision of the necessary teaching and research requisites such as qualified staff, physical infrastructures, library holdings, equipment and in particular scientific and information technology equipment.

(D) Spheres of Cooperation

1. Member States agree that mounting robust post-graduate programs in all required fields is too costly for each Member State to pursue on a realistically sustainable basis and therefore that it is essential to pool the Regions resources in order to establish high quality post-graduate programs. To this end, Member States agree to recommend to their universities:

(a) to cooperate in the design of academic programs where appropriate, in particular in programs which are jointly taught;

(b) to establish links between and among themselves bilaterally and multilaterally for purposes of joint or split-site teaching, collaborative research and consultancy work, and for other academic activities where appropriate. The format, content and implementing modalities shall be devised by the universities concerned between themselves; to collaborate in the production of teaching and learning materials such as text books, computer software and others. This would be a step towards harmonizing academic programs in the Region as necessary;

(c) to promote student and staff exchange programs negotiated on a bilateral and multilateral basis by the sending and receiving universities for educational purposes and to promote cultural ties and engender commitment to the Region;

(d) to increasingly make use of external examiners from the Region as this shall not only contribute towards the building of a regional community of scholars, but shall also lead to the development of comparable standards in higher education in the Region;

(e) to encourage and support the creation of regional professional associations to enable staff to exchange views, ideas and experiences on their disciplines, and thus enable them to develop programs which are of good quality and relevant to the development of the Region. The associations would also be fora for contributing to the development of regional policy and co-operation in higher education;

(f) to create an association of University Vice Chancellors in the Region as a forum for contributing to the development of regional policy and co-operation in university education and training and research and development; that in order to create and maintain a database, details of the co-operation arrangements shall be notified to the sub-Sector by the universities concerned;

(E) Centers of Specialization

1. Member States agree that the general objective of establishing Centers of Specialization is to build capacity for regional training institutions to offer education and training programs in critical and specialized areas and thereby increase the stock of trained personnel in the Region. This includes the need to develop local teaching and learning materials and especially, case studies to make the programs relevant to the regional situation.
2. Member States agree to establish Centers of Specialization in the Region at existing institutions which they shall strengthen as necessary to be able to offer regional programs.
3. Member States agree to support Centers of Specialization by sending students to them and by any other means including scholarships.
4. Member States agree that regional programs shall consist mainly of post-graduate fields of study, but that some critical disciplines offered at under-graduate level such as medicine and engineering shall also be offered at Centers of Specialization.
5. Member States agree that the selection of the Centers of Specialization shall be on the basis of equal opportunity to bid by the relevant universities in the Region. The bids shall be assessed by a group of appropriate specialists selected by the sub-Sector and the distribution of the Centers shall aim to achieve regional spread and balance in location.
6. Member States agree that the subject areas of such Centers shall be determined by consultation between the sub-Sector, the universities and the governments of SADC Countries.
7. Member States agree that a Centre of Specialization shall allow for a quota for the admission into its programs of students from the SADC Countries. The quota shall be as may be agreed upon between the Centers of Specialization and the sub-Sector and may be varied for any agreed reason or period of time as may be negotiated.
8. Member States agree that the language of instruction at Centers of Specialization shall normally be that of the host institution. The Centre shall provide and facilitate support for language training in those instances where this is essential to expand regional participation.
9. Member States agree that Centers of Specialization shall provide such facilities and services to students and staff participating in its programs as sufficient to enable them to pursue and complete their programs.
10. Member States agree that Centers of Specialization shall regard students from SADC Countries as home students of the receiving Centre for purposes of fees and accommodation.
11. Member States agree to work towards the gradual relaxation and eventual elimination of immigration formalities that hinder free student and staff mobility.
12. Member States agree that the sub-Sector in consultation with universities hosting Centers of Specialization shall devise and implement monitoring and assessment mechanisms for ensuring that the Centers dispense their mandate satisfactorily.
13. Member states agree that where the results of monitoring and assessment are not satisfactory, the University concerned shall be given a period of two years to remedy the situation, failing which, the Member States shall withdraw the regional status and support.