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Higher Education in Francophone Africa

What Tools Can Be Used to Support Financially-Sustainable Policies



THE WORLD BANK

Higher Education in Francophone Africa

*What Tools Can Be Used to Support
Financially-Sustainable Policies?*

Pierre Antoine Gioan

Africa Region Human Development Department



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Washington, D.C.

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Summary

The Multiple Constraints Facing Higher Education

The higher education and research sector in the French-speaking countries of Africa has, for more than a decade, been in a state of severe crisis, stemming from an increasing disparity between the requirements vital to providing high quality education and the available resources. The goal of this article is to: i) highlight the factors which have led to the development of this situation in most countries; ii) identify the conditions for creating a framework to regulate the trends in the higher education and research systems and allow them to be more financially sustainable; and iii) identify ways of increasing funding for this sector as well maintaining its level of quality.

This situation is exemplified in many countries by: i) a higher education and research administration that is poorly equipped, or not equipped at all, to formulate medium and long-term financially-sustainable policies; ii) development partners that are not inclined to invest in a sector where there are no clear guidelines; and iii) institutions which, although they demand autonomy, do not have the capacity to become autonomous because they depend almost entirely on the state for their funding. As a consequence, the political authorities have therefore tended to focus their efforts on preventing crises and conflicts since the 1990s, to the detriment of defining and implementing an overall framework for the medium and long-term financially-sustainable and balanced development of the higher education and research sector.

Policy choices are however limited in view of the three constraints that exist. These are the enormous growth in the student population, reduced budget margins and a limited labor market. Three guiding principles can nevertheless be used to assist with policymaking within this context. These include: i) increasing the social and economic relevance of the higher education and research sector by tailoring educational and research opportunities to match the actual requirements of the country as effectively as possible; ii) regulating student population trends so that levels are in line with budget options; and iii) making optimum use of available resources by involving the private sector in the most effective way and by directing resources as much as possible towards educational and research expenditure. Social expenditure would then need to be regulated or even capped.

The Main Tools to Support Financially-sustainable Policies

Given the major budget constraints (varying according to the country), it will be impossible to financially sustain the student population tendency trend, based on the education system dynamics over the next ten years. In addition to aligning education supply with economic requirements more effectively, the growth in student numbers in the public sector must be regulated to bring it in line with available resources or resources that can be mobilized.

Without using draconian measures which could lead to crisis situations, there are several possible courses of action. These include: i) controlling student inflows into higher education in order to avoid an increase in the student population that would be difficult to manage; ii) targeting student assistance more effectively towards the most disadvantaged

and/or deserving students; iii) limiting the duration of study at the higher education level in order to prevent the number of students from building up in the institutions; iv) guiding students more effectively towards courses that offer better employment prospects; v) trying to promote a higher education private sector through fiscal and non-fiscal incentives; vi) reducing unit education costs; and vii) mobilizing additional self-generated resources. Using a combination of these measures should allow the development of an effective and socially acceptable higher education sector.

The portion of the national budget earmarked for higher education and research represents the main stable source of funding for the sector in the Francophone countries of Africa. Flexibility may exist, depending on the country, but budget increases that would match forecasted growth in the student population (20 percent per year for some countries) are unlikely. Other ways of meeting the financial requirements of the higher education and research sector must therefore be found. More effective regulation of the growth in the student population in the public sector and the promotion of the private sector are potential solutions. Improving the distribution of internal resources in the higher education sector as well as streamlining management in order to reduce unit education costs where there is flexibility are also good options.

More than 45 percent of the resources earmarked for the operation of the higher education system are allocated to student assistance (scholarships, food service, housing, transport, and so forth) which further reduces the available resources for other areas of expenditure. One of the main challenges with regard to the higher education systems is linked to the ability to manage social expenditure policies in the most effective way using the various tools available. Limiting the share of the budget allocated to student assistance and reallocating a greater share of the budget to educational and research activities would increase the effectiveness of the system.

In addition to the improved control and targeting of direct financial assistance (scholarships, miscellaneous financial assistance), considerable flexibility also exists with regard to student housing and food services. A considerable share of the budget for student assistance services is allocated to these areas in some cases. The costs relating to the traditional types of university residence and restaurants are prohibitive, with costs ranging from 5 to 10 times higher than for the housing and food services provided in the private sector based on more realistic local standards. One way to limit costs without sacrificing social benefits is to provide favorable conditions and incentives to encourage private operators to offer these services to the students at costs that are more in line with their circumstances, allowing the state to withdraw from funding and managing these activities directly.

An analysis of internal resource utilization in the higher education sector shows that it is possible to reduce unit education costs without adversely affecting teaching conditions. The main areas for improvement relate to bringing the wage bill closer to the accepted standard for management in this type of organization (teaching, administrative and technical staff), reducing operating costs through economies of scale (shared services and procurement through shared sub-contractors), reorganizing the education supply and improved regulation of expenditure procedures.

The institutions can generate their own income in addition to public resources, in particular by offering attractive vocational higher education courses, continuing education courses (either degree courses or not) and by providing expertise. In order for these income-generating activities to develop, greater freedom of initiative together with incentive meas-

ures must be introduced, both for the suppliers and the beneficiaries of these services.

The development of a medium-term policy that is both relevant and financially sustainable would help to mobilize external resources. Competitive and incentive-based mechanisms could be introduced allowing these resources to be allocated to areas that have a spill-over effect with regard to the improvement of the system and could encourage and support long term structural reforms.

Establishing and Directing Medium and Long-term Sustainable Policies

In order to establish policies that are socially and financially sustainable, the state must develop forward-looking and programming capacities that take into account the overall education system and make choices and budget allocations needed to achieve desired objectives under existing constraints. A development vision and a medium and long-term programming framework will enable the administration to encourage the institutions to modernize and control the development of the system through contractual procedures, for example. Such an administrative arrangement, committing both the administration and the higher education and research institutions on the results to be achieved and the resources to be mobilized, implies that the state has the ability to communicate to the higher education and research institutions the objectives that it has ascribed to within the framework of its policies and has the tools to allocate budget resources according to specific criteria and towards actions that most closely match the defined objectives.

At the same time, giving the public institutions more autonomy with regard to determining their own strategies and directing their policies (within the framework of the state defined guidelines and the medium-term commitments entered into) would enable stakeholders to take responsibility for the results to be achieved, as well as gradually reconciling the political requirements with technical and educational requirements, an indication of greater public service efficiency. This greater autonomy means that the institutions should be subjected to a performance appraisal.

Despite the constraints that undermine the higher education systems, establishing balanced policies that are relevant, financially sustainable and socially acceptable remains within reach. There are many tools that can be used to achieve this goal depending on the various situations that are unique to each country.

Introduction

The higher education and research sector in the Francophone African countries has, for more than a decade been in a state of severe crisis, stemming from an increasing disparity between the requirements vital to providing high quality education and the available resources. The partial solutions that have been introduced from time to time have not provided any sense of a long term solution capable of dealing with the main issues at stake. These issues include:

- i) How to respond to an ever increasing demand for higher education (the student population is doubling every four or five years in some Francophone countries) in a situation where financial resources do not cover current requirements?
- ii) How to manage the paradox that exists between the disproportionate numbers of students compared to the number of student places and the proportion of the population of the appropriate age group who enter higher education which is among the lowest in the world (around 3 percent)?
- iii) How to increase the economic and social return on higher education in a situation where the level of opportunities in the labor market is much lower than the level of new graduates?
- iv) How best to make the higher education institutions accountable for managing their development with regard to the trend in student flow and available resources?

In general, the immediate response from the relevant authorities is to try to satisfy the considerable social demand, but not under the best conditions, which inevitably leads to situations that become more and more critical each year and to the progressive deterioration of the public higher education service. Average expenditure per student, which is expressed in per capita GDP units, has been almost halved in Francophone countries since

the start of the 1990s (from 4.2 per capita GDP units at the start of the 1990s to 2.8 per capita GDP units in the most recent years¹). There are very few countries that have been able to develop balanced policies capable of simultaneously meeting social aspirations and economic requirements, taking into account the whole range of constraints and parameters that exist in the higher education sector and at the same time remaining financially sustainable over the medium and long-term.

This working paper aims to:

- i) highlight the factors which lead to the development of such a situation, albeit to varying degrees, in most Francophone countries;
- ii) identify the conditions for creating a framework to regulate the trends in the higher education and research sector and make them more financially sustainable; and
- iii) review the tools which could be used to guarantee the long term financing of this sector and thus help to guarantee its quality and relevance.

1. Borel Fako and Mathieu Brossard, *Cost and Financing of Higher Education in Francophone Africa* (The World Bank, 2007).

The Absence of Balanced National Higher Education and Research Sector Policies that are Financially-sustainable over the Medium-term

Disadvantageous Structural Factors

The higher education systems introduced in most Francophone African countries were originally aimed at training managers destined to lead the newly independent countries. These systems were usually made up of a single university, known as the *Université Nationale*, and depending on the country, engineering schools, under the administration of the technical ministries relating to the relevant specialties (agriculture, administration, teacher training, public works, and so forth) or the interstate schools, making it possible to use economies of scale. Research was normally carried out in centers or institutes that were under the administration of the technical ministries according to their specialties (mostly agriculture and health).

With training requirements far exceeding demand and economic growth perspectives optimistic at the time, controlling student flows and the need for a forward-looking medium and long-term approach to anticipate flows was not an issue. Each institution, supervised by a different administrative unit, had its own development perspective, shaped by the desire to provide the human resource training necessary for national development in the most effective way possible. This background meant that for many years it did not appear necessary to have any centralized control system which would have allowed global development policies to be formulated in the sector.

Such a system was fully utilized between 1960 and 1980 to meet government requirements in particular. However, a combination of factors at the beginning of the 1990s led to a breakdown in the system. These factors included: i) the decline in, or indeed the discontinuation of civil service recruitment; ii) the limited employment opportunities in the private productive sector; and iii) the sharp increase in the social demand for higher education linked to the expansion of primary and secondary education.

The significant increase in student population, especially since the start of the 1990s has gradually led to an increased diversity in training structures. In certain countries, this change has been accompanied by the decentralization of the *Université Nationale*, and, at the same time, a private higher education sector has developed, the importance of which within the national system varies from country to country. This diversification trend is however still less significant in Africa than in the rest of the world.

The introduction of a central authority responsible for planning, regulating, and managing the development of all aspects of the sector (education, research, student assistance services) is now vital to manage the expansion and diversification of the higher education research systems. Central administrative services were set up for this purpose, but they immediately encountered extremely difficult situations, characterized by: i) very limited authority and power to intervene; ii) a lack of information with regard to the management of the higher education and research system; iii) a lack of planning and programming tools; iv) problems with planning the allocation of resources due to a lack of information or the necessary tools; and v) great difficulty in refining policy choices based on analysis due to a lack of information to support decision-making. In view of this, the central government found itself in a situation where it was often powerless, with no real recognition of its legitimacy by the structures under its authority, and as a result unable to develop a coherent and sustainable forward-looking approach to developing and coordinating the implementation of the system.

The Mock Autonomy of the Higher Education Institutions

Higher education institutions, and more especially universities, do not have any real financial autonomy (although they do generally have administrative autonomy conferred on them by their status as public institutions) to the extent that they depend by more than 90 percent on public resources and therefore on the allocation of resources controlled by the administrative supervisory bodies. This constraint has meant that they are highly dependent on policy decisions, particularly with regard to the admission of new students, the recruitment of new teaching staff and operating and investment budgets. The institutions have had little flexibility since, although they are in theory autonomous, they have only been able to determine their development policies within the resource limits defined by the state.

It is, however, extremely difficult for the administrative and financial supervisory bodies, as a result of the limits described above, to make budgetary policy decisions based on technical parameters, as well as to allocate resources on the basis of appropriate quantitative and qualitative parameters (number of students, research programs, qualitative objectives, etc.). Allocation of public resources to higher education institutions is usually based on a percentage allocated in the previous year's budget, irrespective of the real costs that the institution will have to bear. This practice can however vary according to how much influence the head of the institution has with regard to decisions and his ability to negotiate with the administrative authorities.

Difficulties Mobilizing External Support

At the same time, most of the technical and financial partners (TFP) focused their education-related efforts on the primary sector within the framework of the Millennium Development

Goals. The lack of a medium and long-term sector development approach and differing views on the usefulness of certain types of higher education for the economies of the countries concerned impeded talks relating to higher education and research between the development partners and governments during this time.

Major efforts were required to overcome the delay in universal primary completion and a growing number of higher education graduates were having difficulty finding employment opportunities. As a result, the TFP were often opposed to taking risks that could lead to budget slippages in the higher education and research sector, for which the economic and social rate of return proved to be lower than for the other levels of education.

The lack of medium-term policies and the absence of a shared forward-looking approach also lead certain TFPs to limit their support for innovative initiatives, educational projects and targeted research, projects to improve governance of the institutions and for regional centers of excellence projects, without always taking the overall coherence and long-term sustainability of these initiatives into account. Support focused on these targeted projects to the detriment of developing global national policies and the governance of national systems as a whole.

Such a situation has led to the convergence of several factors, including: i) higher education administrations that are poorly equipped, or not equipped at all, to formulate financially consistent and sustainable policies; ii) institutions which, although they demand autonomy, do not have the resources to become autonomous since they depend almost entirely on the state for their funding; and iii) development partners who are not inclined to invest in a poorly managed sector that has no clear guidelines. Within this context more and more university students are being enrolled at the start of each school year in ever more critical conditions, a trend that has been observed for many years in most of the countries. The governments have therefore focused their efforts on preventing the crises and conflicts that this situation inevitably generates, rather than on establishing a balanced framework for development that would be sustainable over the medium and long-term.

Budget allocation decisions, often imposed rather than freely selected, therefore often focus on student assistance services for the growing student population that is voicing its demands more and more loudly, to the detriment of maintaining the quality of education and research.

Establishing and Directing Medium and Long-term Policies

From the Introduction of a Management System to the Definition of Stakeholder Responsibilities

Reversing the trend that has been observed requires the establishment of medium and long-term policies. These policies must be based on decisions that take into account all of the various parameters relating to the educational system and budget allocation decisions must be made according to the objectives to be achieved and the constraints that exist. The higher education and research sector organizations must therefore have the “capacity” to anticipate, define, and carry out these policies. This “capacity” should be established at an appropriate institutional level in order to be effective, thus affording real budget allocation decision authority with regard to reforms and the allocation of resources.

Establishing the capacity to define and carry out policies requires: i) the introduction of an information system capable of providing essential management data regarding the system—enrollment numbers, unit costs, management ratios, the behavior of student cohorts according to the type of education, changes in the labor market, employment rate of graduates, and so forth; ii) the use of programming tools making it possible to simulate trends according to the various planned options and/or reforms and to schedule budgetary requirements according to these trends, cost standards and management ratios; iii) the introduction of controlled and/or negotiated resource allocation mechanisms within the framework of contractual procedures, for example, which take into account the achievement of national policy-related objectives; iv) increased autonomy for the institutions, allowing stakeholders to take initiative and responsibility for the sector; and v) performance appraisals.

Revising the Methods Used to Allocate Resources

A development approach and a medium and long-term planning framework will enable the administration to allocate resources to the institutions according the most relevant

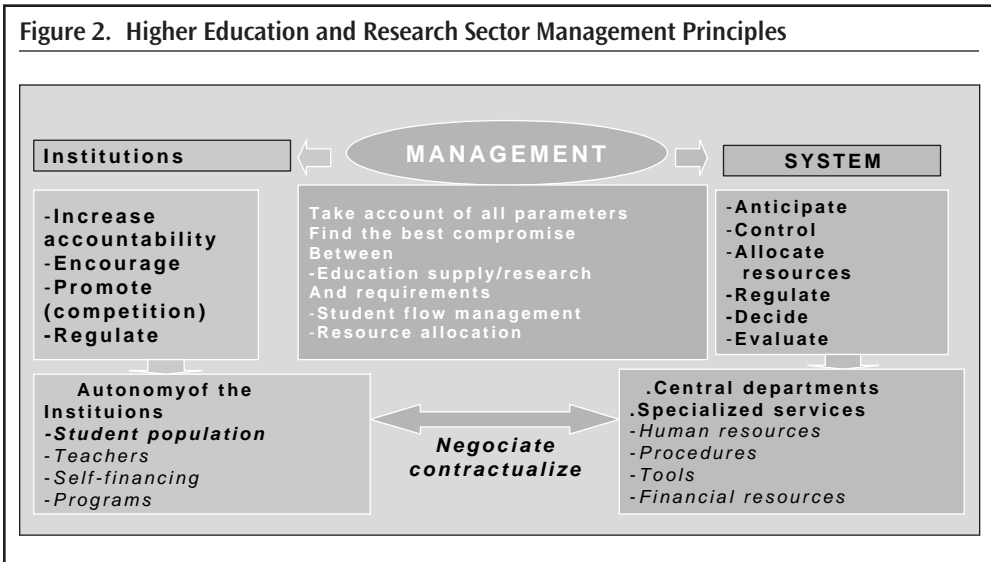
Figure 1. Establishing and Directing Medium and Long-term Policies

FINDINGS	TOOLS
<ul style="list-style-type: none"> - The sector is governed by social demand - Decisions are often driven by urgent situations - There is little or no management information - There is no planned development of the system 	<p>Develop the capacity to define and implement relevant and sustainable medium and long-term policies within the institutions:</p> <ul style="list-style-type: none"> - Capacity to collect and analyze educational, budgetary and employment data - Planning-programming-budgeting capacity - Capacity to institute planned allocation of resources - Monitoring/ evaluation, regulation and decision-making capacities

parameters (such as the number of students per course, the management ratios for teaching staff and administrative and technical staff, research activities, and so forth). This could also encourage the institutions to modernize (improved scientific and technical information, maintenance policies, introduction of quality processes, and so forth) and, use contractual procedures, for example, to regulate the development of the system. Such an administrative arrangement, used both by the administration and the higher education and research institutions to agree on the results to be achieved and the resources to be mobilized, implies that the state has the ability to communicate to the higher education and research institutions the objectives that it has ascribed to within the framework of its policies and has the tools to steer budgetary resources towards actions that most closely match the defined objectives.

Real Autonomy for the Institutions

Giving public institutions the capacity to determine their own strategies and direct their policies by making their own choices within the framework of the state-defined guidelines and commitments (objectives and resources) will enable stakeholders to take responsibility for the results to be achieved. Some institutions in the Francophone region (particularly the *Grandes Ecoles* and certain universities) determine their own admission criteria and are therefore able to regulate changes in the student population, while others are able to set admission fees more in line with real costs or even have complete control of human resource management. However, most universities do not have this kind of flexibility and



are dependent on the decisions made by the supervisory authorities, with the result that they do not necessarily receive appropriate resources.

A contractual approach, where the state has the ability to share its medium-term guidelines, together with greater institutional autonomy would allow political requirements to come closer to technical and educational requirements, which is an indication of greater public service efficiency. Increased autonomy also means that the institutions should be subjected to a performance appraisal.

Improving the Management and Planning of the Higher Education and Research Systems

The Main Tools for Establishing Financially-sustainable Higher Education Policies

The introduction of a management system, together with clearly defined stakeholder responsibilities and capacities, allows the leaders and the higher education and research institutions to tackle the constraints that undermine the development of the sector. These constraints exist to varying degrees in all Francophone African countries and include: i) a high social demand for higher education resulting from the internal dynamics of the educational system; ii) limited demand for higher education graduates in the labor market; and iii) budget options with little flexibility. These three constraints make policy choices difficult. Three guiding principles can nevertheless be used to help with policymaking. These are: i) increasing the social and economic relevance of the higher education and research sector by tailoring educational and research opportunities to match the real requirements of the country as effectively as possible; ii) regulating student population trends so that levels are in line with budget options; and iii) making optimum use of available resources by involving the private sector in the most effective way and by directing resources as much as possible towards educational and research expenditure, which would involve putting an upper limit on social expenditure.

This working paper relates mainly to the funding of higher education and does not deal with the qualitative match of education supply to economic and social demands, although this does have a major impact on the economic, social and operating costs of the higher education and research sector. Satisfying the immediate social demand for higher education may lead to a fragile status quo which may be difficult to maintain based on the limited resources, but it does nothing to solve the inevitable problems that arise once the graduates are faced with the difficulty of finding employment. Furthermore, it seems that many of the countries that are faced with this paradox have, on the one hand, huge student populations coupled with low graduate employment opportunities, and, on the other hand, a distinct lack of human resources working towards sustainable development. One

of the key issues is that the higher education and research sector should not just respond to the social demand for higher education by accepting increasingly larger student flows onto courses for which there is no labor market demand. More appropriate solutions to the situation are required, including, in particular, offering more vocational-type courses in line with national economic and social requirements and guiding the student population towards courses that offer better employment prospects.

The role of the planners is to find the best possible and acceptable compromise among the three key variables. These variables are the student population trend, unit education costs and the resources that can be mobilized to support the higher education and research sector. The goal is to gradually achieve a balance that satisfies social demand, economic reality, budget constraints and educational requirements. The following points attempt to show the scope for optimizing planning activities.

Managing the Student Population Trend

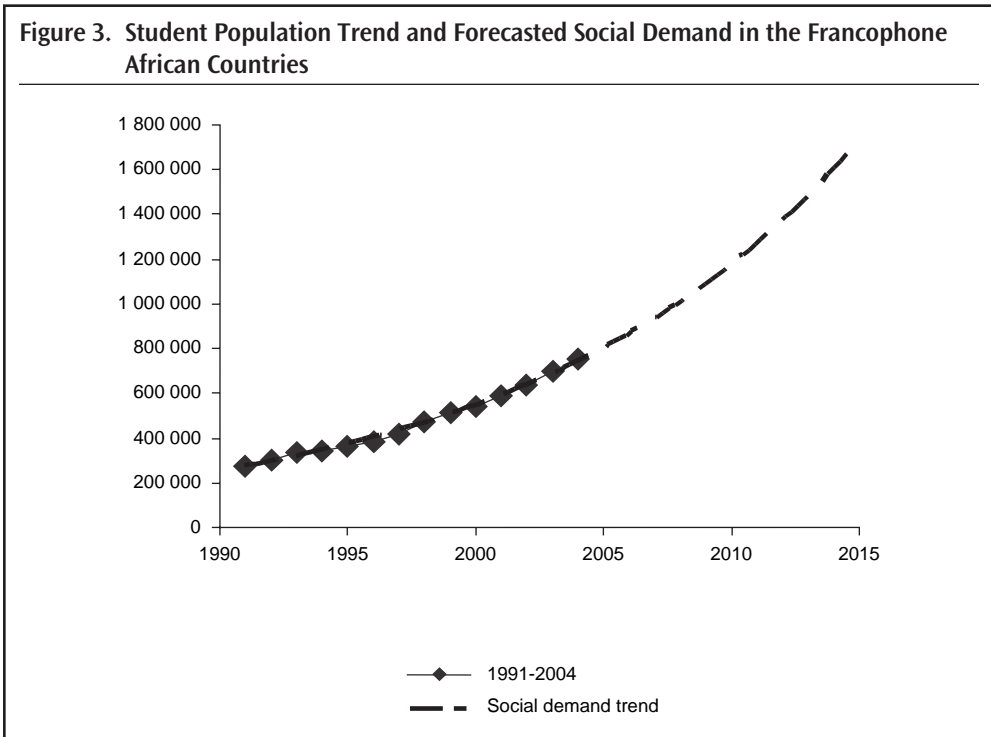
Information relating to the student population trend is a key factor in higher education planning, as much as educational, human and financial requirements are directly linked to the number of students to be educated. Budgets granted in the countries concerned for student assistance services form a major component of the budget allocated for the sector. These budgets are also directly linked to the number of students.

Two conflicting approaches can be used in this forecasting process. One approach is to estimate the changes in the student population using the dynamics particular to the education system. The other is a more utilitarian approach which involves planning the changes in the student population based on the forecast data linked to changes in the labor market and to introduce mechanisms which would limit the number of students according to the target student population (as, for example, in Tunisia).

Based on trends linked to the dynamics particular to the education system and without implementing higher education selection procedures, estimates in various Francophone countries in West Africa indicate that there will be a significant increase in student populations over the next few years (doubling every five years in some countries; see Figure 3).

If student numbers were to be based strictly on labor market demand, bearing in mind that forecasts for this sector are extremely unpredictable, particularly in a situation where less than 5 percent of the working population are employed in the modern employment sector, access to higher education would need to be drastically limited. This would be socially difficult to accept, particularly in the Francophone region, where obtaining the *baccalauréat* means that, in principle, you automatically have the right to enter higher education. It would also require a complete qualitative adjustment to the education supply, which in view of the current structure of the higher education and research systems, could only be achieved gradually (elimination of courses, retraining of teaching staff, flexibility to continuously match supply with demand, investments in new more vocational-type courses of study, and so forth).

Furthermore, in a world that is becoming increasingly interconnected and in societies that are becoming knowledge-based, most people desire a general increase in the level of education whatever constraints may exist and wherever they live, and this demand is



Source: Borel Fako and Mathieu Brossard, *Cost and Financing of Higher Education in Francophone Africa* (Washington, D.C.: The World Bank, 2007).

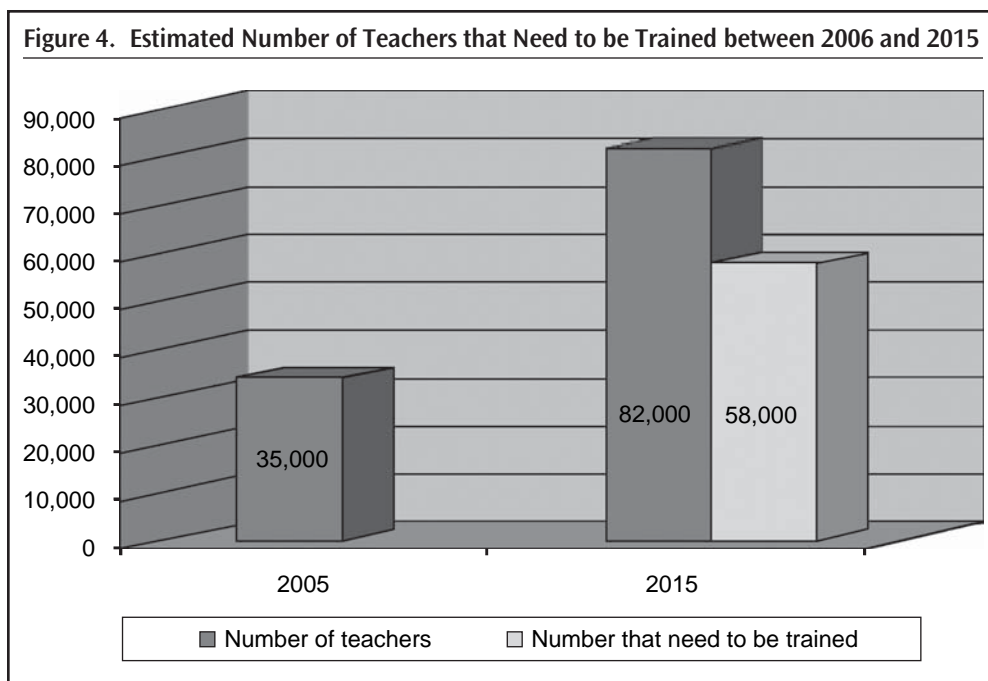
expressed by all levels of society. This is why the trend towards increasing levels of students represents a strong social demand, whatever the national economic requirements may be, and thus constitutes an almost inescapable reality. The resulting equation is one of the most difficult to solve.

In addition to the extremely difficult graduate employment situation, mobilizing resources to cope with the increase in the student population according to the forecasted trends is also a major issue.

It will be impossible to financially support the tendency trend in the student population, based on the dynamics particular to the education system, over the next ten years in view of the inevitable, country-specific budget constraints. Insofar as the sector is funded for the most part by public resources, as indicated by Borel Foko and Mathieu Brossard in a study on the costs and financing of higher education in Francophone Africa, the gap between the budget forecast options and the operating requirements of the higher education systems, calculated based on the growth trend of the student population and the constant unit costs was estimated to be more than US\$3 billion (at 2004) for a group of 18 Francophone countries for the period 2004–15.

In addition to the budget requirements to operate the higher education facilities, such an increase in the student population would also require the training of a huge number of teachers and significant investment. Based on a teaching ratio of one lecturer for 22 students, teaching staff requirements would need to increase from around 35,000 to 82,000 over the period 2006–15, which would mean that around 58,000 new teachers

would need to be trained, taking into account retirements and other staff departures, estimated to be 30 percent for the period. This means that it would be necessary to train more than twice as many teachers over the next ten years than were trained between 1970 and 2005. This would involve major budgetary efforts, on top of those required to operate the system.



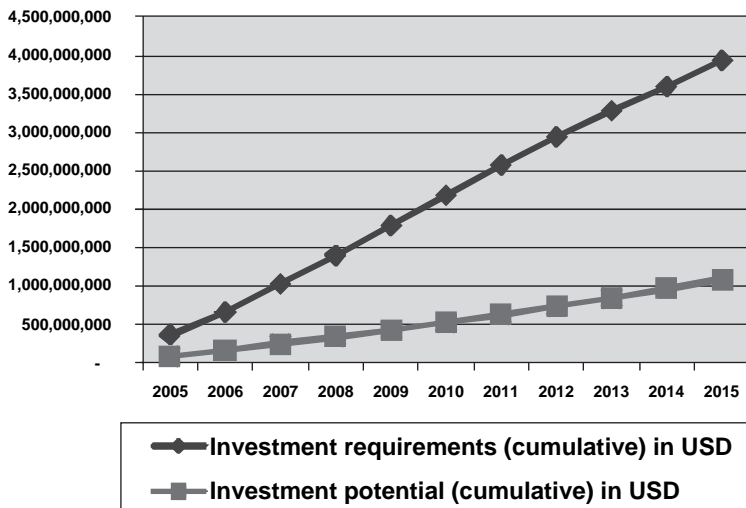
Programs to expand the higher education system are being introduced in almost all countries concerned and in many cases this has triggered the decentralization of university structures away from the capital. The traditional technical and financial partners are only marginally involved in establishing these programs. The programs are mainly being funded by national resources or by loans granted within the framework of bilateral agreements (increasingly with Asian or Middle Eastern countries). The emergency higher education program introduced in Côte d'Ivoire during the 1990s for example was 100 percent financed by national resources and allowed four new decentralized university facilities to be created.

If the average cost of creating a new student place in a higher education institution is estimated to be US\$3,600 (at 2006) (this includes site development costs, construction costs for educational and administrative facilities, furnishing and equipment costs),² cumulative investment required to cover the growth trend in student population would amount to US\$4 billion for the period 2006–15.

2. This amount is calculated with reference to the investment program carried out in Côte d'Ivoire between 1994 and 2001. More than FCFA 50 billion were invested to create a capacity of approximately 40,000 student places (average cost at 2006 value).

Based on the evaluation of the investment capacity financed through national resources of approximately US\$80 million per year for all countries concerned (estimated) and an increase this capacity of 5 percent per year, national investment capacity for the 20 countries concerned could be, at best, around US\$1 billion over the same period. Additional funding requirements could then be estimated to be US\$3 billion for the period 2006–15.

Figure 5. Cumulative Estimate of National Investment Requirements and Capacity for the Period 2006–15
(in U.S. dollars)



In view of the major constraints indicated above and while continuing to make adjustments to the supply of education in order to match economic demand more effectively, there is a tendency to focus on strategies that make it possible to restrict the growth of the student population in the public sector to a level that corresponds to a *realistic* level of public and privately mobilized resources. There are therefore three courses of action that can be taken. These consist of: i) controlling the expansion of student flow to higher education in order to avoid an increase in the student population that is almost impossible to manage; ii) reducing the length of time required to obtain a higher education diploma in order to prevent the number of students from building up; and iv) promoting the private higher education sector which could provide a credible and complementary alternative to the public sector.

Controlling the Student Flow into Higher Education

Higher education admission selection is a recurring issue. Because the *baccalauréat* represents a passport to higher education, it is essential to ensure that it works as an effective entry criteria and to avoid its devaluation which would lead to an extreme increase in student flow into higher education, and additionally to unfortunate consequences with regard to international comparisons. There is a great temptation in this sector to strive for flat-

tering success rates which do not reflect the real quality of the candidates. With the exception of colleges that limit student admission and those that have a competitive admissions process, Francophone countries have not succeeded in introducing a selective university admissions process (apart from the University of Niamey in Niger and the University of Antananarivo in Madagascar). Tunisia, for example, has chosen to regulate student numbers by raising the standard required to obtain the *baccalauréat*, in addition to implementing a compulsory results-based guidance process managed by the Ministry.

Achieving flexibility with regard to the internal dynamics of the education system requires introducing a system to regulate student numbers in advance at the secondary education level (general graduation program), efforts to manage the entrance requirements for the *baccalauréat* and steering a maximum number of students towards (short) technology-focused secondary courses which are more in line with potential demand in the economic sector and the employment structure in the countries concerned.

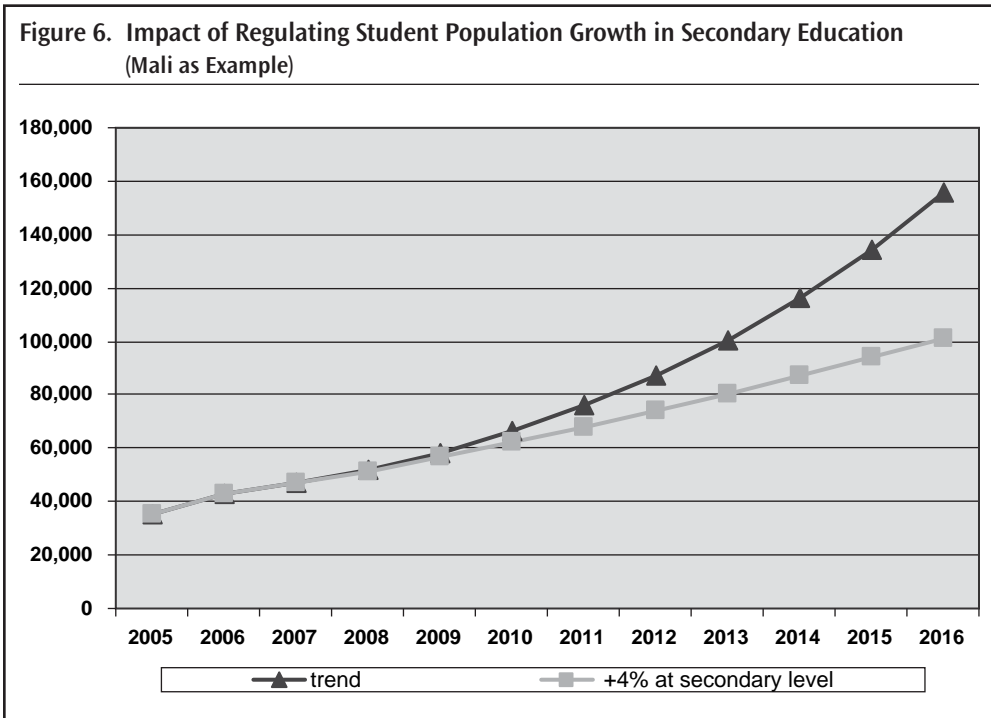
Improved regulation of student flow at the secondary education level can, in fact, have a major impact on the student population trend in higher education. Simulations carried out in 2005 in one of the West African countries (Mali)³ show that if the growth in the secondary education sector was limited to 4 percent per year, instead of the 11 percent observed in 2005, the number of students in higher education by 2015 would be estimated to be 95,000 students instead of 150,000 students, based on the trend forecast (see Figure 6). Considerable flexibility therefore exists which should be taken into account when trying to find the best compromise between the student population trend, economic demand and financial resources.

The Duration of Higher Education Studies

In contrast to primary and secondary education, where the statutory period of education is the same for each student, the duration of higher education studies can vary widely. A graduation certificate can be obtained in 2, 3, 5, or 8 years, or even longer in the case of specializations. Repeating courses and changing specialization adds to this time, with the result that is not unusual to find students who have been studying for 10 years or indeed 12 or 14 years. The growth in the number of students in the system is not just dependent on the number of students entering the system each year but is also dependent on the number graduating. The longer the duration of the studies, the greater the increase in the student numbers in the institutions, irrespective of the number of new students being enrolled.

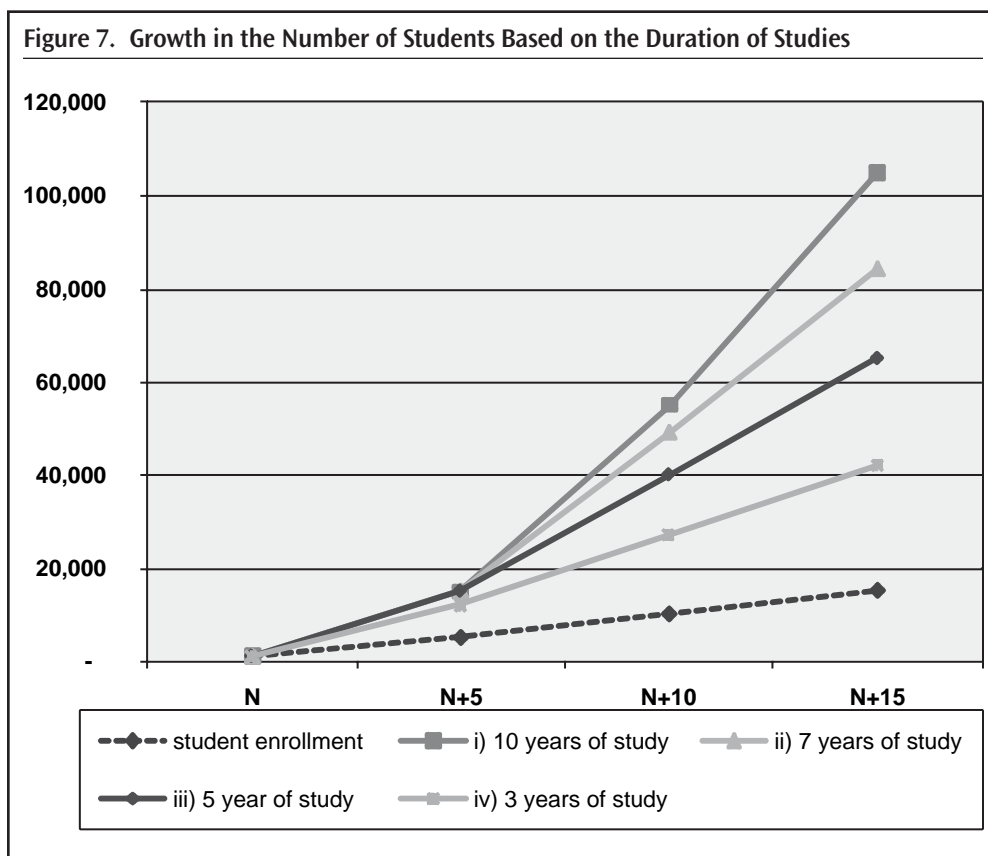
The theoretical example shown in Figure 7 shows increases in enrollment of 1,000 students per year and four possible scenarios: i) a duration of studies of 10 years for all students; ii) a duration of studies of 7 years; iii) a duration of studies of 5 years; and iv) a duration of studies of 3 years. At the end of fifteen years, we can see that for the same number of new students enrollments, with a duration of studies of 3 years, the number of students in the system would be 42,000 whereas the number of students in the system would be 105,000 with a duration of studies of 10 years, which is 2.5 times as many.

3. Study relating to the formulation of national policy guidelines with regard to higher education and scientific research in Mali; Pierre Antoine Gioan (Edufrance), November 2005.



Analyses have also been carried out in Mali to measure the impact of introducing short vocational training courses at the University on the growth in the student population. By planning to gradually introduce an enrollment capacity of 3,000 students in the professional degree program (three years of study) by 2015, by gradually increasing the capacity to enroll students in short DUT-type (University Technology Diploma) vocational training courses (two years of study) from 1,500 in 2005 to 8,000 in 2015, the total student population at the University would decrease by around 20 percent in 2015 compared to the tendency trend in the student population. This of course assumes that changing to the degree-masters-doctorate system would not lead to the withdrawal of the short technology courses (two years) which are tailored towards local economy requirements. The relatively recent introduction of vocational degrees makes it possible to offer a vocational qualification allowing students to enter the labor market after three years of study (whereas the *Diplômes d'Etudes Supérieures Spécialisées*, *DESS* (advanced graduate diploma) requires five years of study) and makes it possible to regulate entry to studies at Masters level.

These types of courses have the combined advantage of being better tailored to employment opportunities and limiting the duration of studies. In addition to this mechanical effect it is also possible to introduce academic rules which can limit the possibility of repeating courses or repeatedly changing specializations in the public higher education system. Major progress has been made with regard to this since the end of the 1990s, but there is still scope—depending on the country, the institution, and the level of education—to make changes with regard to preventing students becoming “settled” in the universities. Providing scholarships to encourage students to limit the number of years of study can also help to reduce the average duration of studies. In the Côte d’Ivoire, for example, the 1996 law to support regulations



regarding scholarships for higher education specifies in particular that scholarships are provided for an academic year according to: i) the available budget; ii) quotas for courses given priority by the state and the level of studies; and iii) the academic ranking of the candidate (marks in the *baccalauréat*) and social criteria. The renewal of this scholarship the following year is dependent on the ranking achieved by the candidate at the end of each year of studies, based on the same criteria. Obtaining a scholarship is effectively dependent on results, thus encouraging the students to pass their exams and not prolong the duration of their studies indefinitely.

Promoting Private Higher Education

The private higher education sector began to develop in the Francophone countries in the 1990s. It is highly dependent on state promotion policies with the result that the extent to which it has developed varies from country to country. The proportion of the student population in the private sector can therefore vary from less than 10 percent to more than 30 percent. The development of this sector rapidly reaches a limit once it is exposed to the single market rule. Most families do not in fact have the means to finance studies in private institutions and the possibility of studying abroad remains a privileged option for more well-off families. However, many people are reluctant or indeed opposed in principle (sometimes rigidly) to the financial involvement of the state in this sector.

Measures that provide financial incentives to support the private sector have a certain number of advantages, including, in particular, an economic advantage. For certain types of education, and in particular short professional training courses, the unit education costs in the private sector are sometimes much lower than the unit costs for the equivalent education in the public sector. Budget audits can highlight the gaps which can be considerable in some cases (ratios can reach 1 to 10). It is therefore sometimes to the advantage of the government to encourage students to opt for the training courses offered by the private sector even if this means subsidizing training costs for a certain number of students. Another advantage is that it introduces a “contractual-type” relationship making it possible for the state to impose certain requirements, particularly with regard to quality, teaching conditions and results in exchange for financial incentives. This allows the state to control the development of this sector and thus give it more credibility. The final advantage is that the provision of financial and/or tax incentives reduces costs for the private institutions and enrollment fees can then be gradually reduced. This means that a greater number of students can have access to higher education and thus reduces the demographic pressure on the public institutions.

The example below is a real example of the creation and extremely rapid development of the private higher education sector in another West African country (Côte d’Ivoire). The private sector did not exist in this country before the early 1990s but government promotion led to its rapid development. The government was anxious to expand the available options for accessing higher education, to reduce the demographic pressure on University enrollment and to promote the introduction of short BTS (advanced vocational diploma) type courses and therefore introduced a subsidy policy which would cover the tuition fees. This subsidy policy had a certain amount of success since a huge number of *baccalauréat* holders gradually began to enroll in these courses, although they initially refused since they were less prestigious than the university courses. Almost 13,000 *baccalauréat* holders out of a total of 20,000 applied for courses in a private higher education institution at the end of the seventh year of operation. During that year budgeted subsidy covered the tuition for fees for only 6,000 new students (which led to the selection of the best students for the private institutions!).

State assistance was initially introduced as an incentive to establish private initiatives and to thus gradually provide a credible alternative to the public sector. After seven years, approximately 30 percent of students were enrolled in a private higher education facility. State financial aid initially represented 100 percent of the institutions’ revenue, but during the first seven years of the system the proportion of students paying their own tuition increased, with 40 percent of students paying their own tuition after five years.

The trends shown in the graph below (curves rescaled to include the changes in the number of institutions) indicate strong relationships between the state subsidy level, the number of institutions created, the student population enrolled in a private institution and the number of students who pay for their own tuition.

Supporting the development of the private education sector through subsidy mechanisms as shown in the example above involves significant budgetary costs. As a result, many policy makers hesitate to follow this path. Advantages for the state should however be taken into account as demonstrated by the comparison between the unit costs for public sector education and those for the private sector. The cost of providing student assistance services is also a factor in this argument (grants, housing, and so forth), because students in the private sector do not receive the same benefits as those in the public sector.

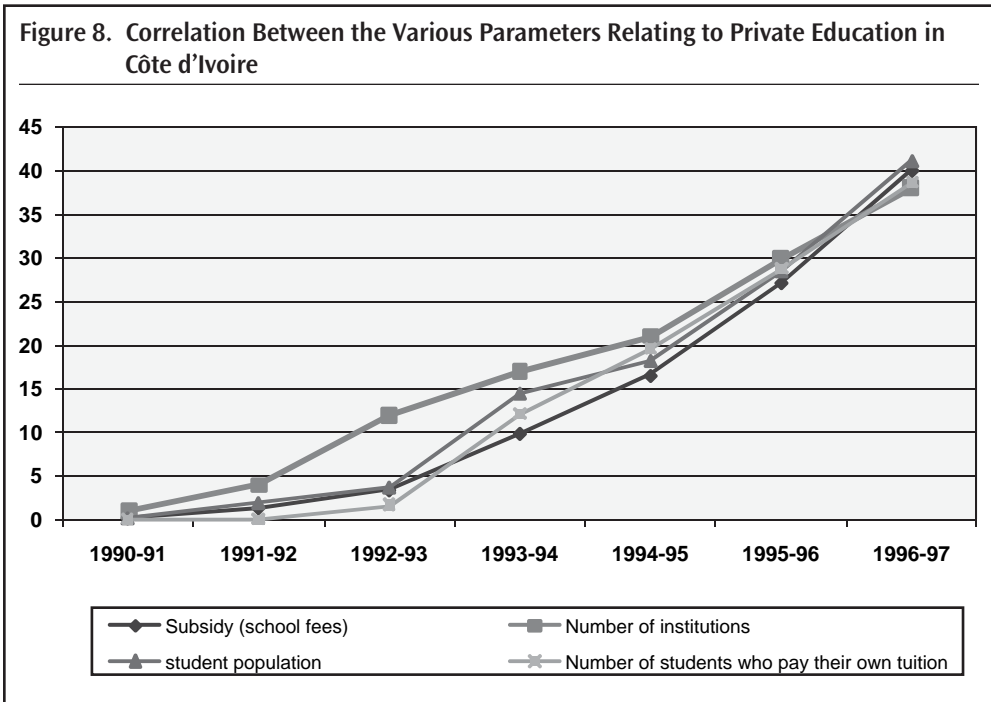
	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Subsidy (tuition fees) FCFA billions	0.02	0.166	0.422	1.23	2.06	3.39	5	5.9
Number of institutions	1	4	12	17	21	30	38	54
Student population	40	917	1,806	7,205	9,081	14,231	20,555	27,980
Percentage of student population in private higher education	0%	3%	5%	14%	17%	24%	23%	27%
Number of students who pay their own tuition	0	0	326	2,402	3,910	5,737	7,708	12,108
Percentage of students who pay their own tuition	0%	0%	18%	33%	43%	40%	38%	43.2%

Overall, the cost/benefits analysis shows that it is to the state's benefit to subsidize certain types of educational courses that have unit costs that are much higher than those of the private sector. Additionally, when no subsidy policy for private education exists, then indirect subsidy mechanisms still seem to exist in certain countries where students enroll in public institutions in order to receive financial assistance from the state (scholarships) and then divert this assistance to finance their tuition fees in private institutions.

In addition to the subsidies aimed at encouraging the private sector to establish educational courses that do not exist in the public sector (though recognized as being relevant to the national economy), other tax incentive measures (more attractive tax arrangements for institutions recognized as being of general public interest, reduced rates of duty, and so forth), or non-tax incentive measures (provision of land or premises, access to loans, and so forth), or even national recognition of the diplomas can be introduced with the goal of supporting development in this sector and attracting sponsors.

Combining the Various Tools to Manage Changes in the Student Population

The various tools described above can, or indeed, should be, used together. The simulation model carried out recently in Mali shows that if student populations are left to increase according to the trends observed in 2005, then there would be an absolute explosion in the student population, with numbers increasing from 34,000 in the public sector in 2004/05 to 150,000 in 2015 and to a situation where it would be impossible to mobilize the required resources to manage this number of students (more than FCFA 250 billion required in



investment in ten years and an operational budget which would increase from 13 to 30 percent of the education budget over the period). The same exercise, introducing the following factors into the simulation model: i) controls at the secondary level (limiting the increase in student numbers to 4 percent per year); ii) increased promotion of the private sector (which would gradually absorb 20 percent of new *baccalauréat* holders instead of 6 percent in 2005); and iii) an increase in the number of short vocational DUT-type (University Technology Diploma) courses or vocational degrees, would lead to a student population of 74,000 in the public system in 2015, which is half the number forecast in the trend scenario.

The growth in the student population is more moderate than in the trend scenario, but the question still remains as to whether there will be adequate budgetary resources to provide satisfactory conditions for students enrolled in the education system. If not, then other solutions must be found, for example, increased financial contributions from the students, or introducing a selection procedure for enrollment into higher education.

This simulation exercise provides information to the policymakers with regard to the impact of the measures (or absence of measures) that can be introduced. *It therefore constitutes a vital decisionmaking tool with regard to the student population trend.* It also makes it possible to measure the financial impacts and thus assess the budgetary feasibility of policies that will be introduced. The graph below compares the increase in financial requirements related to the tendency trend in the student population with the scenario where student flows are regulated, as in the simulation exercise in Mali described above. If the trends in growth observed in 2005 continue, then the overall annual operating and investment requirements will increase to more than FCFA 100 billion in 2015 (US\$200 million at 2006). If the student flows are regulated as shown in the scenario below then this requirement would be brought back down to FCFA 40 billion (US\$80 million at 2006).

Figure 9. Impact of Combining the Various Tools on the Growth of the Student Population
(Mali, 2005)

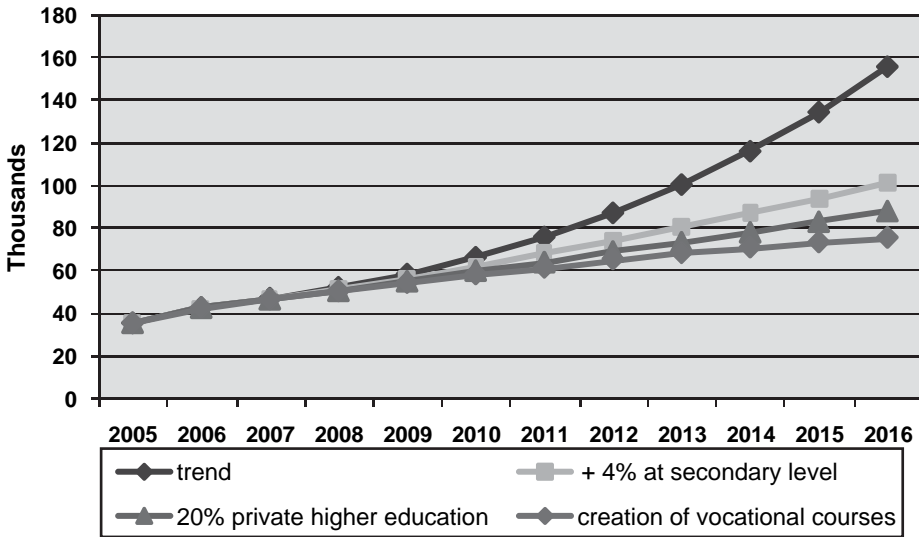
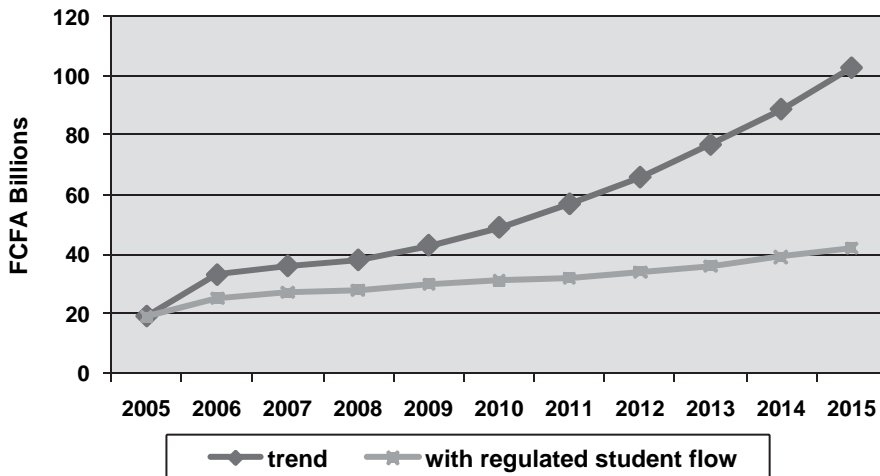


Figure 10. Annual Increase in Financial Requirements (Operating and Investment) Relating to the Tendency Trend in Student Numbers and the Situation Where the Student Flow is Regulated
(Mali, 2005)



Reducing Unit Costs (Per Student)

Unit education costs must be reduced in order to manage the increase in the student population, with a budget that is constant or only increases slightly. If this reduction can be achieved automatically through a mechanical effect (increasing the number of students without increasing the budget) then the fundamental concern is maintaining quality at the same time as controlling expenditure. An analysis of internal resource utilization in the higher education sector indicates that considerable flexibility does exist to significantly reduce unit education costs without adversely affecting academic conditions.

Internal resources in the higher education sector are shared between three areas. These are personnel costs, social expenditure to support students, operating costs and teaching-related expenditure. An analysis of the distribution of these main areas of expenditure shows that in most Francophone countries, most expenditure is social-related, accounting for, on average, more than 45 percent of the resources allocated to higher education. This figure is probably an under-estimate and can even be as high as 70 percent in some countries such as Niger, for example, with the result that resources for other areas of expenditure are reduced accordingly.⁴

Social Expenditure

Attempting to meet social expenditure requirements that are increasing more than the student population can lead to a real risk of budget slippage, to the detriment of the key education, training and research objectives. This undermines the development of higher education systems but it also means that there is considerable flexibility with regard to diverting substantial internal resources towards training and research activities.

This is a particularly sensitive topic, because the demands of the students in terms of social expenditure are extremely high, and it would be difficult to retract the benefits that have been acquired and are highly defended. Establishing a well-balanced higher education system in the future is, however, a major challenge that is dependent on the ability to manage social expenditure policies in the most effective way by using the various tools that are available in order to remain within the ratios that are compatible with the effective operation of the training and research system.

Student assistance is granted by the state almost exclusively to higher education students. In view of this, another major challenge will be to deliver student assistance services throughout the education system to provide a more equitable system, allowing disadvantaged students, who due to a lack of resources are not able to receive normal tuition, to have access to this level of education (indeed initially to secondary education or vocational training).

The state has several tools to support its student assistance policies. In addition to direct financial aid (scholarships, assistance, loans and various allowances), the government can

4. The study carried out by Borel Foko and Mathieu Brossard shows the significance of social expenditure in the Francophone African countries. The authors rightly point out that the figures are underestimated since many expenditure items are included in the calculation. In addition to the examples given in this study, these items may include: i) scholarships amounts that are included in the budget for secondary education but are actually allocated to higher education; ii) educational material that is allocated as student financial aid; iii) staff assigned to social services but recorded in the accounts as educational staff; and so forth.

also help students by subsidizing housing, food services, transport, and as indicated above, by covering enrollment fees for certain students in private institutions. However, social aid policies vary from country to country. Some countries favor direct financial aid (scholarships, assistance, loans) for almost all students, as for example in Senegal. In other countries, the proportion of students who receive direct financial aid is very low (approximately 10 percent of students), as for example in Côte d'Ivoire, where other instruments are more developed, particularly those related to housing in university residences, food services, or even covering the cost of enrollment fees in private institutions. Making the best choice of the various student assistance instruments available is vital, since this will help the most disadvantaged students as well as help to maintain the quality of education and research.

Direct financial aid. As a result of the eligibility criteria for direct financial aid (scholarships, financial aid) the most disadvantaged students are not always targeted and students have no incentive to choose the courses that are most useful for national development. With no legal quotas to limit the number of recipients, the criteria used make it impossible, in many cases, to stay within the corresponding budget allowance. Regulations must therefore be reviewed (as in Côte d'Ivoire), to mitigate the risks of further budget slippages each year and increased pressure on the higher education budget for more scholarships and other financial aid. Depending on the level to which the state is willing to help the most disadvantaged students and to steer students toward its most important requirements, it should be possible to determine yearly quotas.

In most countries in the world, the level of scholarships awarded each year is strictly limited according to budgetary capacity and is based on the perception of equality that prevails within their policies. Recipients are selected: i) according to merit (for example, those that achieved the best results in the examination at the end of secondary school or in admission tests for higher education); ii) according to economic or social situation; or iii) based on a combination of selection according to merit and criteria or quotas relating to the student's economic or social situation or the fact that he or she belongs to a disadvantaged or discriminated group.

The beneficiaries of scholarships for studying abroad (which can represent more than 10 percent of social expenditures depending on the country and for which the individual amounts are much higher than for national scholarships) usually come from the most advantaged social classes and the eligibility criteria for these scholarships are not usually clear defined. In order to reduce the great strain that it places on the budget, this category of scholarships should be strictly limited to doctoral or post-doctoral studies or to specialist courses that are not available within the country concerned and which are particularly important for national development.

Student loans that must be repaid once the graduate has entered the work force can be an attractive method of cost sharing as long as the required funds are made available to the student and there is a system to recover the costs. Burkina was the first country in West Africa to introduce student loans, but the process was not successful because there were no effective mechanisms to recover the funds and the private banks had little interest in this type of product. If, however, a partnership between the private banks and the state was set up in order to limit the risks of private entrepreneurs and to guarantee the recovery of the loans, then the student loan system could be as successful in Francophone Africa as in other regions of the world.

Other forms of student assistance. Substantial savings can be made with regard to student housing and food services, which in some cases, form a major part of the budget allocated for social services. The costs relating to the traditional types of university residence and restaurants are prohibitive, with costs ranging between 5 and 10 times higher than for the housing and food services provided in the private sector based on more realistic local standards. One way to limit costs without sacrificing social benefits is for the state to stop funding and managing these activities directly and to provide favorable conditions and incentives to encourage private operators to offer these services to the students, under supervision, at costs that are more in line with their circumstances. As part of the trend towards decentralizing university structures, responsibility for implementing this system could even, under certain conditions, be given to the local authorities.

A study carried out in 2005 in one of the Francophone countries of West Africa (Burkina Faso)⁵ shows that a housing program for students, financed for the most part by small private operators, would be cost-effective for the state even if it meant giving up tax revenue in return and providing a proportion of the investment (the study estimated that for a project that aimed to provide housing for 35 percent of students, the net gain for the state related to investments and operating costs would be approximately US\$160 million over 10 years).

Private sector involvement in student housing does however assume that sufficiently attractive measures can be offered as a sort of risk benefit to guarantee the profitability of the investment and ensure that demand is covered in terms of quantity. A combination of two types of incentive measure can be used to achieve this. These include: i) non-tax incentive measures (land, site development, development of common areas, miscellaneous assistance, subsidized credit, meeting part of rental costs to ensure a “social” housing cost, etc.) and ii) tax incentive measures for the investors as well as the operators during construction and operation (materials, property taxes, taxation on revenue, etc.). The state still has a role to play as a facilitator and regulator (determination of housing standards and agreed rates, incentive measures, monitoring and control) in this kind of system where the private sector and its standards (opportunity cost, profitability, protection of assets) are involved.

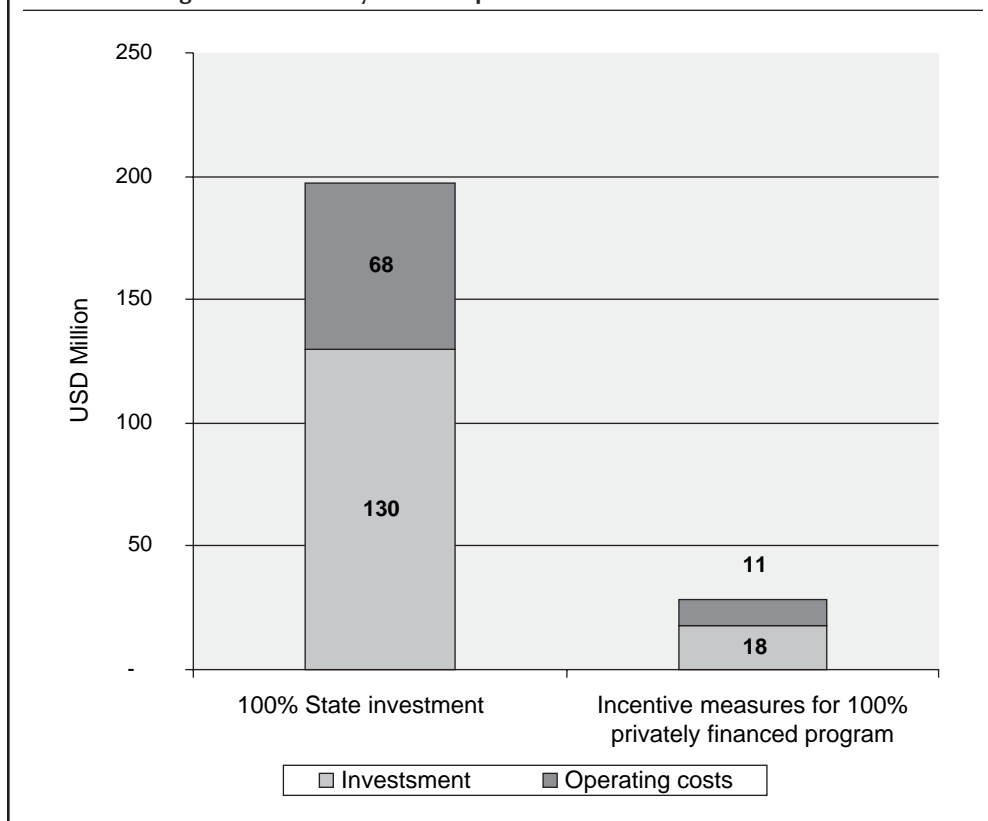
Furthermore, more innovative solutions are required to attract small private investors, reduce the unit cost of investment and reduce the recurring operating costs compared with the traditional university residence halls system. One possibility is “university village” type housing which consists of small units (for 4/5 students) that can each be financed by small investors and that have all the usual university facilities (food service, health center, sports fields, and so forth).

The same restrictions apply to the publicly managed traditional university restaurant facilities where the unit cost of a meal can be 5 to 10 times higher than “normal” costs. The amount of subsidies that the state contributes towards even the privately managed systems used in some countries is always a problem due to national budget constraints and the growth in demand.

Innovative experiments have been carried out in this area (particularly in Côte d’Ivoire) aimed at involving small private operators in student food services with no financial contributions from the state. Private operators are allowed to establish themselves in premises prepared for this purpose (sanitation, water, electricity) subject to the guidelines set out by

5. Study relating to the formulation of a student housing policy that would involve the private sector; Pierre Antoine Gioan and Philippe Recamier, March 2005.

Figure 11. Comparison Between the Costs of a Student Housing Program 100 Percent-Financed by the State and the Cost of State Incentive Measures for the Same Program Financed by Private Operators



Note: Both cases relate to the capacity to provide housing for 35 percent of students. The cost of the programs includes investment and operating costs for the period 2006–15. In both cases the student pays a subsidized rent.

the authorities. The guidelines can, in this case, determine the standard design for the facilities, the authorized services, opening requirements, quality conditions to be met as well as the requirement to provide at least one low-cost dish at a price equivalent to that paid by the student in a traditional university dining hall. The main role of the public authorities is therefore to create a framework for the system and to ensure that guidelines are followed.

Other Expenditure Items

The lack of structured and accessible management information makes it difficult to take any action to reduce the cost variances and optimize expenditure for the other expenditure items. Budget and management audits of the higher education and research institutions do nevertheless help to overcome this problem and provide a structured data base for the administrators. Budget and management audits in the *Grandes Ecoles* and Universities in Côte d'Ivoire carried out in the early 1990s show, for example, that improvements in

efficiency can be achieved. The main areas for improvement relate to: i) bringing the wage bill closer to the accepted standard for management in this type of organization (teaching, administrative and technical staff); ii) reducing operating costs through economies of scale (shared services and procurement through shared sub-contractors); iii) reorganizing the supply of education; iv) increasing expenditure related to maintenance; and v) improved procedures for monitoring expenditure.

With regard to teaching staff, it is not unusual to have situations with teacher-student ratios of one teacher for more than 100 students in general courses together with ratios of one teacher for 4 to 5 students for more specialized or technological courses, whereas an average ratio of one teacher for every 10 to 12 students would be more normal for this type of courses. Recruitment and teacher allocation procedures must be introduced in order to remedy these discrepancies. These procedures must be based on plans that reflect standard teacher-student ratios and annual teaching hours stipulated in the contract.⁶

Other tools could be used to improve control of the wage bill. These include, for example, more routinely using contract teachers (particularly for vocational courses or very specific courses where employing permanent teachers cannot be justified), and determining more appropriate teaching hours for vocational and technology courses. University teachers are in fact required to teach and carry out research, whereas technology and vocational institute teachers are not required to carry out research. Giving special status to this category of teachers would make it possible to introduce increased teaching hours which would limit operating costs for technological and vocational courses (Tunisia has, for instance, set up a body of specialized teachers for the *ISETs* (Higher Education Institutes for Technology) whose teaching hours are higher than those of university professors). Another solution would be to introduce the status of contract teacher, for whom salary conditions and teaching obligations would be negotiated according to the situation and constraints that exist.

Overstaffing with regard to administrative and technical personnel could be resolved by introducing more realistic standards in certain institutions and by more routinely using sub-contractors for certain activities (caretaking services, cleaning, maintenance, food services, and so forth).

A more structured education system could lead to economies of scale, if only by highlighting those courses that are redundant or for which there are not enough students, as well as the gradual elimination of courses that are clearly not relevant to the national development (for example within the framework of the so-called “degree-masters-doctorate” reform implemented in certain countries). This can provide flexibility to refocus the available resources and put them to the most effective use.

By way of an example, plans to rationalize the management of the *Grandes Ecoles* in Côte d’Ivoire, introduced as a result of the audits carried out at the beginning of the 1990s, included measures to reduce unit education costs by 50 percent in four years, making it possible to enroll twice as many students while keeping the budget constant. The objectives of this rationalization plan, which remains an example of a proactive policy that one institution wanted to introduce, were successfully met.

6. Teaching hours are often defined on a weekly basis, which means that overtime is paid each time a teacher exceeds, for a given week, the hours stipulated in the contract. With a system whereby annual teaching hours are stipulated in the contract, hours worked are entered in the accounts on a yearly basis (or half-yearly basis) and the adjustment leads to a significant savings in terms of overtime.

Table 2. Plans to Streamline the Management of the *Grandes Ecoles* in Côte d'Ivoire: Main Results Indicators

Indicators	(1990–91)	Objectives (1995–96)
Number of students	2748	4636
Number of permanent teachers	621	478
(including technical assistants)	203	61
Percent of working hours spent teaching	9%	20%
Number of administrative and technical officers	992	591
Ratios:		
Teacher/student ratio	1 to 3.9	1 to 7.5
Administrative personnel/student ratio	1 to 2.8	1 to 7.9
Average number of teaching hours per week	5.6 hours/week	9 hours/week
Self-generated resources	FCFA 204 million	FCFA 804 million
Operating budget	FCFA 8 billion	FCFA 8 billion
Unit cost (not including technical assistance costs)	FCFA 2.91 million per student (US\$9,700 at 1991)	FCFA 1.72 million per student (US\$5,700 at 1991)
Unit cost (including technical assistance costs)	FCFA 4.76 million per student (US\$15,800 at 1991)	FCFA 2.06 million per student (US\$6,800 at 1991)

Source: P. A. Gioan, "Higher Education in Côte d'Ivoire—Two years of reform" (1993).

Reducing unit expenditure requires a more stringent approach to managing expenditure. Audits relating to the implementation of expenditure often reveal deficiencies in the consistency of procedures (compliance with request for bidding procedures, delivery control procedure). Potential exists to reduce unit costs and ensure more effective public expenditure.

Using the available resources more effectively requires increased knowledge regarding the effectiveness, as well as the consistency, of expenditure. In order to achieve this, the government must adopt reliable information systems, indicators and benchmarks, and introduce reliable mechanisms for monitoring and evaluation.

Distance Learning

Distance learning is developing very rapidly in all regions of the world, mainly because it provides unequalled flexibility for learning (making it possible, among other things, to encourage life-long learning), but also because, subject to certain conditions, it can respond to the considerable increase in student numbers at a cost that is much lower than for face-to-face learning. For distance learning to succeed, however, it must be possible to recover the considerable initial investment (particularly for training staff and

tailoring educational materials), there must be sufficient student demand and computer connection costs must be low. Distance learning could help to reduce unit costs in Africa, as long as network performance improves and connections costs are drastically reduced.

Mobilizing Resources to Support Higher Education

In the Francophone African countries, the state provides most of the budgetary resources for public institutions. Student contributions to the cost of education remain limited. There have been many attempts to increase enrollment fees but these have often failed or have led to social crisis. Enrollment fees for university have not changed for more than 15 years in many countries. Other sources of funding (companies, foundations, technical and financial partners, etc.) remain limited and are often temporary. Income generated by the institutions themselves can, under certain conditions, represent a considerable additional resource. The share of the national budget earmarked for higher education still represents the main stable source of funding for the sector and radical changes in this area are unlikely to occur in the short-term.

Situations vary greatly in the different countries, but an analysis of the structural trends can help to identify areas where flexibility may exist. Four main factors should be taken into consideration: i) the total resources of the state, ii) the proportion earmarked for education in the state's budget; iii) the proportion earmarked for higher education in the state's budget; and iv) the internal distribution of expenditure within the higher education sector.

Flexibility with Regard to National Resources

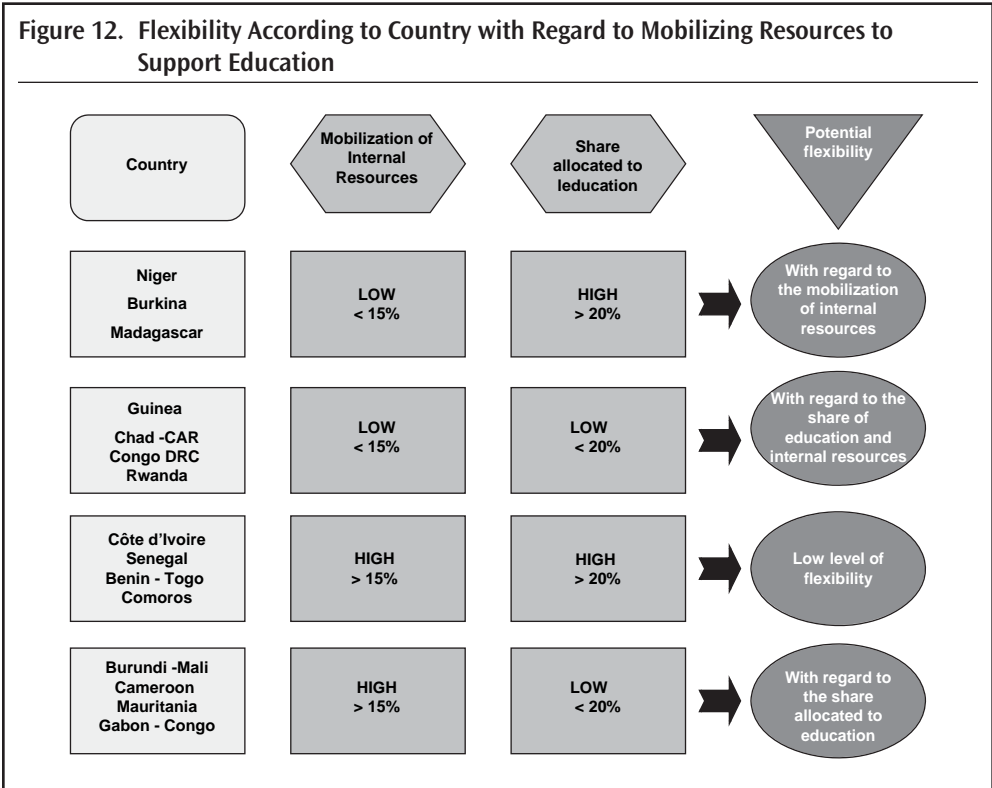
The overall share of expenditure allocated to education ranges from 15 to 30 percent (21 percent on average) in Francophone countries in sub-Saharan Africa. State resources (internally mobilized resources) range from 10 to 20 percent of GDP depending on the country (15 percent on average). For those countries at the top of the range there is little flexibility to increase overall resources to support education, but for those at the bottom of the range there is some flexibility, if only to come level with the averages observed for countries with a comparable economic structure.

Flexibility can only be achieved through: i) an increased tax burden—changes in this area can only be made gradually since they are dependent on economic growth; ii) budget allocations giving priority to education, although this will inevitably be to the detriment of other sectors, many of which are also priority sectors (health, security, agriculture, and so forth).

Again, it would be difficult to introduce rapid changes in this area, since this could have an adverse affect on the other sectors. Changes could only be introduced after successful negotiations with the other ministerial departments.

Flexibility with Regard to Internal Allocation of Resources within the Education Sector

The share of the higher education budget within the education budget in the Francophone countries ranges from 15 to 30 percent (20 percent on average). For those countries

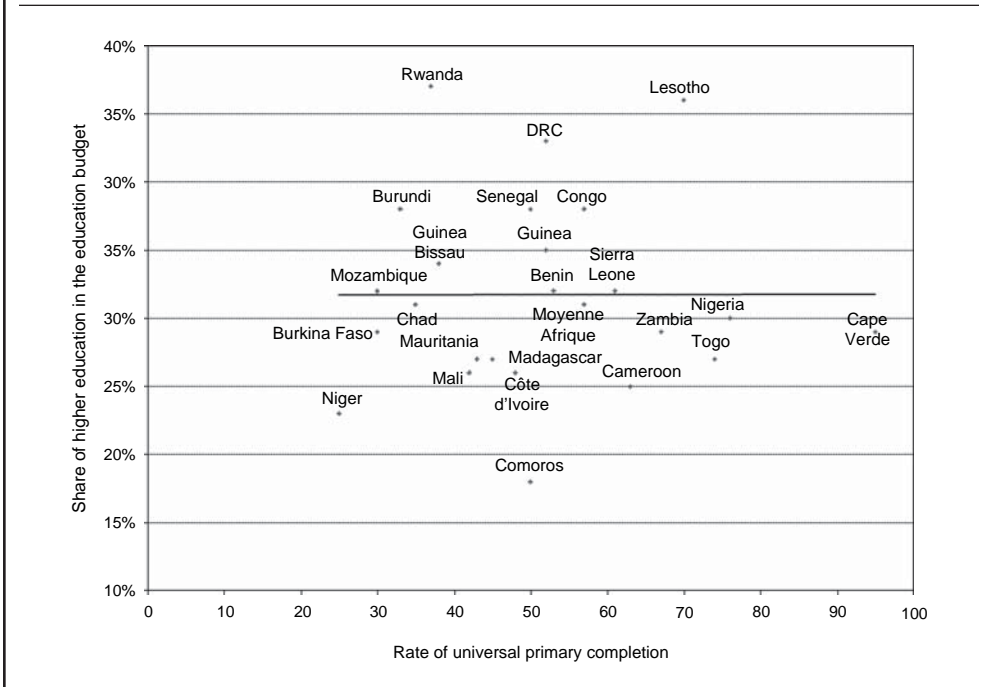


for which the share of higher education is at the bottom of the range, there is as much flexibility as for those countries who have achieved the “Education for All” (EFA) objectives. The executive summary “Education for All” published in 2005 by the Pôle de Dakar indicates, however, that a high proportion of Francophone countries in sub-Saharan Africa will have great difficulty achieving the Universal Primary Completion objectives by 2015.

In view of the limited results that have been achieved with regard to universal primary completion, budgetary efforts in most Francophone countries will therefore need to focus on primary education over the next several years and then gradually turn their focus to secondary education for which student flows, even with major control measures, will automatically tend to increase, and finally on secondary professional and technical education.

Figure 13 shows that very different situations exist in Africa with regard to the budget allocation priority given to universal primary completion and the share of higher education in the education budget. Even flexibility exists depending on the country, the potential to significantly increase the share, or volume, of the budget allocated for higher education will be limited or even non-existent over the course of the next few years. In all circumstances, it will be almost impossible to make provision for budgetary changes to match the tendency trend forecasts in the student population (20 percent per year for some countries). Other methods of meeting the financial requirements of the higher education and research sector must therefore be found.

Figure 13. Share of Higher Education in the Education Budget and Position of Countries with Regard to Universal Primary Completion in 2003, or close to 2003



Source: Pôle de Dakar-UNESCO-BREDA, *Education for all in Africa, Dakar Report + 6*, UNESCO-BREDA, 2006.

Mobilizing External Resources

Self-generated Income

The institutions could reasonably be expected to generate their own income in addition to public resources, in particular: i) by offering particularly attractive vocational higher education courses for which candidates would be happy to contribute towards educational costs if, at the end of the course, they could be guaranteed employment opportunities; ii) by offering continuing education courses (either degree courses or not) that are of interest to companies and/or individuals who would then be prepared to invest in these courses; and iii) through requests from the private sector for research or university specialist related expertise. Cost-sharing between the state, individuals and companies could even be possible if the courses are high in quality and particularly tailored to economic requirements. Many institutions, especially the *Grandes Ecoles* in Francophone Africa, are able to generate a substantial level of financial resources through these activities, provided that they have been given greater management autonomy (see the example of the *Ecole Supérieure Polytechnique* in Dakar).

In order for these income-generating activities to develop, greater freedom of initiative is required, as well as incentive measures to rally the actors and the institutions involved with raising the funds. An allocation formula for these resources also seems to be

necessary. This would allow an equitable and beneficial distribution of resources among the actors concerned, the institutions and, finally, the state.⁷

External Aid

The mobilization of external aid, particularly through the technical and financial partners (TFP), would be facilitated by the introduction of a realistic medium-term policy that is both relevant and financially sustainable and the provision of adequate guarantees with regard to the long-term management of potential investments (adequate maintenance budgets, for example). This external support can, however, only provide additional resources and should target particular areas that will have a spill-over effect with regard to the overall improvement of the system and could encourage and support long term structural reforms.

In addition to improving the management of the system in order to ensure improved future sustainability, external funding could also be usefully mobilized to support education and research quality as well as the improved management of the institutions. The distribution of these resources according to competitive and incentive-based mechanisms that incorporate appropriate procedures (in the case of competitive funds) should allow the best initiatives to be generated and successfully implemented.

7. The introduction of such measures made it possible to increase self-generated income for the *Grandes Ecoles* in Côte d'Ivoire from approximately FCFA 200 million to FCFA 800 million during the 1990s.

Conclusion

Despite the immense difficulties that higher education systems in the Francophone African countries face, it is possible to define and introduce balanced policies that are financially sustainable and socially acceptable, as long as certain tools are used. The Appendix below gives a summary of the various tools that have been discussed in this working paper, an evaluation of the technical and political difficulties associated with their implementation, and their financial impact.

Whatever the measures used, incorporating higher education into a medium to long-term framework for financial sustainability does however require:

- i) The introduction of an administrative arrangement which would give greater autonomy to the operational units, at the same time as providing increased capacity to anticipate changes and an improved perception of the development of the overall higher education system.

This means in particular that:

- The governments concerned must be equipped with the analytical, planning and scheduling tools necessary to deal with the various possible trends in view of the national conditions, and determine the most realistic and financially sustainable medium to long-term scenarios;
- The governments concerned must be equipped with the means to promote, coordinate and control the implementation of the policies that have been adopted using budget allocation mechanisms which will allow resources to be allocated according to specific criteria, and within a framework that will encourage the institutions to take initiative and responsibility;

- The higher education institutions must be given greater autonomy so that they can implement the most effective strategies within the framework of the determined guidelines in order to achieve the expected results;
 - Evaluations must be automatically carried out so that public spending efficiency can be assessed.
- ii) The use of tools that will ensure balanced and financially sustainable development of the higher education sector. This assumes in particular that:
- Various measures will be introduced to maintain a balance between the growth in the student population and resources, without necessarily causing a breakdown which could lead to a crisis situation;
 - The development of higher education will not be considered as separate to the other levels of education, but as an integral part of the education system, with interaction between the various structures being crucial, particularly with the secondary education and vocational training systems;
 - Innovative solutions to support private investment in education and in student social services are developed. The introduction of attractive incentive systems could encourage private funding, which, in view of the current situation in the countries concerned, is required in addition to public funding;
 - Social expenditure be capped at an acceptable level so that the quality of education and research is not compromised;
 - Measures to streamline management are introduced in order to reduce unit education costs where possible;
 - Higher education institutions are encouraged to generate an increasing level of own resources.

Potential Tools for Financially-sustainable Higher Education Policies

Objectives	Measures	Technical Difficulty	Political Difficulty	Cost of Implementing Measure
1. Improved management of the sector	Build capacity to anticipate changes	++	0	+
	Creation of a management information system	++	0	+
	Increase autonomy of the institutions	+	+	+
	Rational mechanism for allocating resources	+	0	+
	Contractualization mechanism	++	+	+
	System to evaluate the institutions	++	++	+
2. Finding a balance between the student population, the available resources and requirements	Controlling student flow in secondary education	0	+	0
	Introduction of short university courses	++	0	++
	Limit possibility of repeating courses	0	+	0
	Promotion of the private higher education sector	+	0	+

(continued)

Objectives	Measures	Technical Difficulty	Political Difficulty	Cost of Implementing Measure
	Selective admission for higher education	0	++	0
	Limit period for which scholarship is given	0	+	0
	Introduction of a distance learning system	++	0	++
3. Reducing expenditure per student	Streamline the structure of educational courses	++	0	++
	Review the rules for granting additional teaching hours	0	+	0
	Reduce budgets for scholarships to study abroad	0	+	0
	Review allocation criteria for scholarships in order to limit their increase	0	++	0
	Privatize management of university services (food service—transport—housing)	+	+	+
	Streamline the use of teaching and non-teaching staff	+	+	+
	Streamline management of the institutions	++	0	+
	Manage expenditure usage	+	+	+
4. Increase the level of funding for the sector	Establish a global development framework for the education sector	++	0	+
	Increase enrolment fees for nationals	0	++	0
	Increase enrolment fees for foreign students	0	0	0
	Introduction of a student loan system	+	0	0
	Increase the level of self-generated resources by the institutions	+	0	+
	Introduction of competitive funding	+	0	+

Key:

0: No particular difficulty and no financial cost for implementing the measure

+: Moderate difficulty and cost for implementing the measure

++: Significant difficulty and cost for implementing the measure

Eco-Audit

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For more than a decade, higher education and research in the French-speaking countries of Africa has been in a state of severe crisis, stemming from an increasing disparity between available resources and the requirements vital to providing high-quality education. This paper seeks to: 1) highlight the factors which have led to the development of this situation in most countries; 2) identify the conditions for creating a framework for regulating financially-sustainable higher education and research systems; and 3) identify ways of increasing funding for this sector as well as maintaining its quality.

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