

Nigeria's graduate training opportunities in economics

S. Ibi Ajayi

*Professor of Economics,
University of Ibadan,
Ibadan*

and

Mike Kwanashie

*Senior Lecturer,
Department of Economics,
Ahmadu Bello University,
Zaria*

AERC Special Paper 11
Initiatives Publishers, Nairobi
February 1991

Contents

List of Tables	vi
I Introduction	1
II Nigeria's university education system	2
III Current status of postgraduate training in economics	7
IV The demand for economics graduates	13
V The training strategy	14
General guiding principles	14
Objectives and scope of strategy	15
The collaborative framework	15
The MSc programme	15
The PhD programme	16
VI Implementation of the training strategy	18
Joint facility centres (MSc degree programme)	18
Administration/management of the collaborative facility	18
VII Sources of funding	20
VIII Preliminary cost estimates of MSc and PhD programmes	21
Appendix A Estimated costs of collaborative MSc programme	23
Appendix B Estimated costs of PhD programme	26
Notes	28
References	29

List of tables

1. Universities and colleges in Nigeria	3
2. Minimum standards in economics	4
3. Graduates in economics in Nigerian universities, 1985–1989	9
4. Total graduates in economics (BSc) in Nigeria, 1980–1988	10
5. Qualifications of academic staff	10
6. Categories of staff	11
7. Preliminary cost estimate of collaborative MSc programme	21
8. Preliminary cost estimate of PhD programme	22

I. Introduction

This study on the opportunities for graduate training in economics in Nigeria was preceded by initial studies on graduate training in economics in Africa (Ajayi *et al.*, 1990; Ajayi, 1990). The questionnaire used for the eastern and southern Africa study was revised by heads of departments of economics in Nigerian universities so as to be particularly relevant to the situation in Nigeria and was then used for the present study.

The second round of studies looked specifically at how to strengthen the MSc and PhD degrees in economics in three zones: anglophone Africa (except Nigeria), francophone Africa, and Nigeria.

The study on Nigeria aimed to:

- analyze responses to the detailed questionnaire on the current state of graduate education, and the possible means of strengthening it in a collaborative fashion;
- specify the modalities for strengthening MSc and PhD training in economics in Nigeria;
- estimate the cost of the modalities for strengthening graduate training and explore different ways of financing them from local and external sources.

The questionnaires were sent to all universities in 1990. At the time this report was being written, questionnaires had been received back from the departments of economics from ten universities: University of Ibadan, University of Ilorin, University of Maiduguri, University of Nigeria, Nsukka, Ahmadu Bello University, Bayero University, Kano, University of Lagos, University of Calabar, University of Port Harcourt, and Obafemi Awolowo University. The Universities of Jos and Benin which have graduate programmes in economics had not responded.

The responses to the questionnaire were discussed by the heads of department of economics in August 1990. With the exception of the University of Calabar, the heads of departments (or their representatives) of the ten universities named above were present at the meeting. The strategies discussed in this paper represent the views of the heads of department of these institutions.

II. Nigeria's university education system

The system of university education in Nigeria is in many respects different from many other African countries. Given the large population of Nigeria, the student enrolment in universities is substantial. The system of higher education is varied, consisting of federal and state universities and research institutes capable of performing a variety of functions.

At present, of the 30 universities in Nigeria twenty are federal. Of these, four are universities of technology while two are universities of agriculture. There are ten state universities, the newest of them being the Oyo State University of Technology (see Table 1). The regulatory body for the universities is the National Universities Commission (NUC).

Nigeria's national policy on education¹ states that the goals of higher education are to be pursued by institutions through teaching, research, dissemination of existing and new information, and service to the community. The institutions of higher learning are expected to be the storehouse of knowledge.

The NUC was established in 1974. Amongst its many other functions, this body was charged with the responsibility of advising the federal government on the financial needs, both recurrent and capital, of university education in Nigeria. The body was additionally charged with studying the needs of university research and ensuring that adequate provision is made for them. The research and postgraduate development division of NUC was created in 1987 as a result of the need for:

- Co-ordination of research projects and programmes in the universities;
- Attraction of research funds from outside Nigeria and to co-ordinate relevant research projects/programmes with similar ones outside Nigerian universities especially within Africa;
- Creation of a proper liaison between the research centres and organisations, especially the research institutes;

- Co-ordination and streamlining of postgraduate development programmes in the universities with a view to the eventual evolution of "centres of excellence" for various disciplines;
- More meaningful utilization of the large number of professors and other senior academics in Nigerian universities for research and postgraduate development;
- Encouraging organisations and individuals to come to the financial aid of universities in research and postgraduate development; and
- Maximising the effective utilization of resources allocated to universities through the Commission for Research and Postgraduate Development (NUC, 1988, pp. 29-31).

Table 1 Universities and colleges in Nigeria

Federal universities	
Ahmadu Bello University	University of Agriculture (Makurdi)
Tafawa Balewa University	University of Lagos
Federal University of Technology, Akure	University of Agriculture (Abeokuta)
Bayero University, Kano	University of Maiduguri
University of Benin	Federal University of Technology, Minna
University of Calabar	Federal University of Technology, Yola
University of Ibadan	University of Nigeria, Nsukka
Obafemi Awolowo University	Federal University of Technology, Owerri
University of Ilorin	University of Port Harcourt
University of Jos	Usman Dan Fodio University
State universities	
Anambra State University of Technology	Lagos State University
Bendel State University	Ondo State University
Bendel State University (Abraka Campus)	Ogun State University
Cross River State University	Rivers State University of Science and Technology
Imo State University	Oyo State University of Technology

In higher education, research has four basic functions (NUC, 1988). These are to:

- Contribute to the vitality of the nation's research capacity;
- Train the next generation of researchers and improve the teaching of undergraduates;
- Contribute to solving social and economic problems;
- Contribute to fundamental knowledge and through this to the attainment of cultural objectives.

Not only does NUC guide the allocation of funds but it also has parameters that should be adhered to within budgets. Specifically, the library budget allocation of a university is supposed to be a fixed percentage (about 5 percent) of the total university budget. However, as the financial fortunes of universities have worsened, it has been difficult to adhere to these guidelines.

As the authority that deals with universities, the NUC sets guidelines and rules of procedure for a variety of operations of universities. All departments are required to receive the approval of NUC and all programmes also require the NUC's approval. All external funds into universities for activities such as research and material support normally have to receive NUC's approval. The ratios of academic to non-academic staff, students-to staff, arts to science students, and of different academic staff are all specified by NUC.

Recently, NUC has embarked on accreditation of all disciplines in Nigerian universities² to maintain the quality of degrees in all disciplines. The stipulated minimum standards of the four-year degree programme for economics is shown in Table 2. While an undergraduate degree of high standard undoubtedly forms a good base for postgraduate training, universities are at liberty to go above the minimum standard in order to maintain their own character and uniqueness.

Table 2 Minimum standards for economics undergraduate degree

100 level (Year 1)	Units in 1st Semester	Units in 2nd Semester
<i>Compulsory courses</i>		
Economic Theory/Principles	2	2
Introduction to Statistics	2	2
Introductory Mathematics for Economists	2	2
Introduction to Accounting	—	2
Total General Studies	6	4
<i>Required elective courses</i>		
Introduction to Management	2	2
Two elective courses from chosen departments in the faculty and one outside	3	3
Total	17	17

...continued

200 level (Year 2)	Units in 1st Semester	Units in 2nd Semester
<i>Compulsory courses</i>		
Microeconomics	2	2
Macroeconomics	2	2
Structure of the Nigerian Economy I & II	2	2
History of Economic Thought I	–	3
Introductory Statistics	2	2
Mathematics for Economists	2	–
Principles of Finance	2	–
Total General Studies	4	2
<i>Two elective courses from any of the following (4 units):</i>		
Theories of Human Resources		
Labour Economics		
Basic Accounting		
Urban and Regional Economics		
Monetary Economics		
One elective from any other department	–	2
Total	18	17
<hr/>		
300 level (Year 3)		
<i>Compulsory courses</i>		
Microeconomics	4	–
Macroeconomics	–	4
History of Economic Thought II	2	–
Introductory Econometrics	–	2
Applied Statistics	2	2
Developmental Economics	2	–
Public Policy	2	2
Public Finance	–	2
General Studies	2	–
<i>Any 4 elective courses from the following:</i>		
Internal Trade		
Operations Research		
Political Economy	4	4
Applied Monetary Economics		
Management Accounting		
Mathematical Economics I		
Financial Institutions		
Total	18	16

...continued

400 level (Year 4)	Units in 1st Semester	Units in 2nd Semester
<i>Compulsory courses</i>		
Advanced Microeconomics	2	2
Advanced Macroeconomics	2	2
Project Evaluation	2	2
Comparative Economic Systems	2	-
Economic Planning	2	2
Problems and Policies of Development	2	-
Taxation and Fiscal Policy	2	-
Economics of Production	-	2
Applied Statistics II	2	-
Research Project/Original Essay	-	6
<i>Three elective courses from the following:</i>	4	4
Industrial Relations and Personnel Management		
Petroleum Economics		
Advanced Mathematical Economics		
Banking and Finance		
Econometrics		
Total	20	18
Total units for the four years:		
Year 1	17	17
Year 2	18	17
Year 3	18	16
Year 4	20	18
	73	68

III. Current status of postgraduate training in economics

In order to put this study and the strategies suggested later for strengthening the MSc and PhD programmes in perspective, it is necessary to start with a discussion of the major problems confronting many economics departments in the country. These problems can be summarized as follows:³

- Poor teaching and learning environment;
- Decline in support for research and maintenance of facilities;
- Poor library facilities including the absence of basic journals;
- Steady drop in real salaries, resulting in high staff attrition rates;
- Increases in average class size relative to facilities;
- Poor incentive structure in the university system;
- Heavy teaching load by members of the academic staff for both undergraduate and graduate levels;
- Absence of, or declining funding for research and conferences;
- Absence of, or declining availability of funds for staff development;
- Absence of support for graduate study.

In the case of Nigeria these problems arise from two basic structural changes in the economy: dwindling government revenue since the crisis in the oil market and the proliferation of universities. There are at present twenty federal universities. These are catered for by the federal government. With the decline in financial allocation, resources are being spread too thinly among many universities. Increasing demand from the other sectors has affected the allocation to higher education.

Given the present financial situation in the country, and the magnitude of the problems, it is unlikely that solutions can be found without some external assistance. Funds made available from AERC and the African Capacity Building Initiative of the World Bank and other donor agencies will be of immense value.

In order to forestall the present decline in the quality of postgraduate training and to strengthen the MSc and PhD training in economics, assistance is urgently needed in the following areas:

- Assistance to staff for sabbatical or short-term leave;
- Improvement in infrastructural facilities, including equipment such as computers, typewriters, and photocopiers;
- Purchase of books and journals;
- Funds for research and conferences;
- Postgraduate support in general, including thesis support; and
- Assistance for authors of books and journals.

In general, the entry requirements across universities for the BSc degree in economics are fairly similar. For all universities, five credits including mathematics and English at the School Certificate/Ordinary Level or Senior Secondary, and good performance at the Junior Matriculation Examination are required for those pursuing a four-year degree programme. For the three-year degree programme which is being systematically phased out, passes at the Advanced Level in two courses are required. The score for the Advanced Level courses must be fairly high.

The output from the undergraduate programme is sufficient to form the basis for a viable postgraduate programme (Table 3). Table 4 shows that from the total number of first degree graduates in economics from Nigerian universities, there is a large core of potential entrants into postgraduate programmes. Available information shows that only about ten to fifteen percent of these end up with a higher degree.

Admission into the MSc and PhD programmes varies across universities. Some universities admit candidates into the Masters degree only if they attain a second class degree, upper division. Others admit second class, lower division.

Table 3 gives the number of graduates in economics in the different categories in different universities. With the exception of Ibadan and Lagos, the output of postgraduate degree holders is very small. In addition to the regular MSc degree in economics, Ibadan offers the Masters degree in banking and finance and in business administration.

In general, the current duration of the Masters degree programme varies between two and four semesters with the number of compulsory courses varying from four to eight including projects/thesis. As the units attached to the courses vary, the total units of compulsory courses are not the same. The core courses include microeconomic theory, macroeconomic theory, econometrics and projects/thesis. In a few cases, MSc theses need to be defended before an external examiner from another university, whereas in other universities this formal defence is not done. At the Obafemi Awolowo University in Ile-Ife, there are two kinds of MSc programmes—MSc with thesis and MSc without thesis. In all universities, however, a system of external examination exists for all theses/projects. The number of elective courses varies from one university to another. For the most part, these are dictated by the availability of staff.

Table 3 Graduates in economics in Nigerian universities, 1985-1989

Name of university	BSc					MSc					PhD				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
Ahmadu Bello University, Zaria	46	95	97	125	103	3	3	5	5	5	-	-	-	-	-
Bayaro University, Kano	-	-	-	-	150	-	-	-	-	8	-	-	-	-	-
Obafemi Awolowo University, Ile-Ife	91	106	117	121	74	4	5	3	3	4	2	1	2	1	1
University of Calabar	30	19	30	32	20	1	1	-	1	-	-	-	-	2	4
University of Ibadan	76	77	90	80	64	14	16	21	13	13	-	3	2	2	1
University of Ilorin	32	48	41	34	20	-	-	-	-	2	-	-	-	-	-
University of Lagos	31	73	38	46	n.a.	16	28	54	66	-	2	-	-	3	-
University of Maiduguri	n.a.	45	59	37	61	-	-	-	-	-	-	-	-	-	-
University of Nigeria, Nsukka	72	68	69	64	64	2	4	3	2	3	2	2	2	1	1
University of Port Harcourt	39	29	43	54	28	-	-	-	-	-	-	-	-	-	-

Source: Questionnaire.

Table 4 Total graduates in economics (BSc)
in Nigeria, 1980–1988

Year	Number
1980/1981	452
1981/1982	422
1982/1983	693
1983/1984	573
1984/1985*	465
1985/1986	654
1986/1987	782
1987/1988	945

* Figure excludes graduates from Benin, Kano, Maiduguri.

Source: Data supplied by NUC Academic Planning Unit and from Questionnaire.

Table 3 shows that the output for the PhD degree in economics is much smaller than that of the Masters degree. Only three universities have produced PhD graduates in economics throughout the last four years: University of Ibadan; University of Nigeria, Nsukka; and Obafemi Awolowo University. The University of Calabar produced PhD candidates in 1988 and 1989 only.

The existing number of teaching staff varies from one department of economics to another. This variation is not limited to numbers alone but also to the quality of staff in terms of the qualifications and mix (see Table 5 and Table 6).

Table 5 Qualifications of academic staff

Name of university	With PhD	Without PhD	Total
Ahmadu Bello University, Zaria	6	18	24
Bayero University, Kano	5	10	15
Obafemi Awolowo University, Ile-Ife	8	9	17
University of Calabar	7	4	11
University of Ibadan	19	1	20
University of Ilorin	4	3	7
University of Lagos	10	7	17
University of Maiduguri	5	15	20
University of Nigeria, Nsukka	9	7	16
University of Port Harcourt	8	2	10

Source: Questionnaire.

Table 6 Categories of staff

Name of university	Full-time lecturers (title)							Associate lecturers	Grand total
	Professor	Reader	Senior Lecturer	Lecturer	Assistant Lecturer	Graduate Assistant	Total		
Ahmadu Bello University, Zaria	2	-	6	5	5	6	6	2	26
Bayero University, Kano	-	-	2	6	7	-	-	-	15
Obafemi Awolowo University, Ile-Ife	-	1	3	8	5	-	-	-	17
University of Calabar	2	-	2	4	1	2	2	2	13
University of Ibadan	8	-	7	5	-	-	10	10	30
University of Ilorin	1	-	2	3	1	-	-	-	7
University of Lagos	5	3	6	3	-	-	-	-	17
University of Maiduguri	-	1	3	16	-	-	-	-	20
University of Nigeria, Nsukka	2	-	7	7	-	-	-	2	18
University of Port Harcourt	-	-	4	6	-	-	-	1	11

Source: Questionnaire.

The issue of status is important because the level of seniority affects leadership in the areas of research and postgraduate training. Table 6 gives the staff cadre for full-time members of staff and the number of associate lecturers. The total number of staff gives a rough measure of the adequacy of staffing. Where a large number of associate lecturers are used, this is indicative of the shortfall in staffing. This situation is particularly noticeable in Ibadan where about ten associate lecturers are being utilized. In this case, the large number can be explained in terms of both inadequacy and the need to utilize the services of practitioners in the field for the professional masters programmes.

From the analysis of the existing postgraduate programmes in economics, the following salient features emerge:

- Output of the MSc and PhD programmes is small in number;
- Currently only three universities produce PhD graduates regularly;
- The existing number of teaching staff varies from one department to another. There is general understaffing given the workload at the undergraduate level;
- Some members of staff in some universities do not have a PhD degree and are therefore in need of further training; and
- The academic staff mix varies from one department of economics to another. This affects the quality of training to the extent that seniority affects leadership in the areas of research and postgraduate training.

IV. The demand for economics graduates

Without a detailed national manpower survey, it is difficult to measure the demand for economists precisely. However, there are three main sources of demand for economists: government, the private sector, and the universities. Economists are employed in fields such as planning, banking and economic and statistical analysis. Economists are required to analyze public policy and are involved in economic management. The extent to which the government seeks foreign assistance in these areas is suggestive of the extent of the shortfall. In the private sector, economists are needed as management and economic consultants to various organizations. The preference for graduate economists depends on the skill required; in some jobs only the Bachelors degree is necessary, with substantial in-training programmes to improve competence.

V. The training strategy

General guiding principles

The Nigerian training strategy focuses on developing local capacity in Masters and PhD programmes to create a broad base for excellence and ensure that training is relevant to capacity building and human resource development. Currently the MSc programme is more prevalent than the PhD, indicating that only a limited number of universities can successfully mount the PhD programme. The strategy would therefore encourage the broad-based mounting of Masters degree programmes and strengthening existing capacities while at the same time encouraging those institutions with viable PhD programmes (some newly developed and some old ones) to expand their capacity.

There are many approaches to strengthening MSc and PhD programmes. One approach is to create centres of excellence. While such centres currently exist *de facto* due to excellence in different areas, some heads of department are not comfortable with the use of the "centres of excellence" terminology because of the political overtones associated with its usage. Some argue that even when a department is designated as a centre of excellence, another university may have a superior package. There was also the general fear of a crowding-out effect once centres of excellence are created.

In an attempt to spread the advantages of centres of excellence, some suggested that different departments be called centres of excellence in particular fields or areas. However, this may result in proliferation of "centres of excellence" that are not truly excellent.

A second approach to strengthen postgraduate training is a collaborative approach which involves joint participation and sharing of facilities in order to boost quality. Heads of departments felt that the quality and number of the Masters and PhD degrees being produced at present should be improved. Given the prevalence of the MSc training by universities, this should be given attention. To strengthen the MSc and PhD economics training a joint teaching facility should be added; this would involve the exchange of staff and students.

The envisaged collaborative effort or joint facility would provide some minimum standards and an acceptable programme structure while allowing enough flexibility to accommodate differences in individual university regulations. Minimum standards would be established for all participating

departments. The strategy would allow the evolution of syllabi and the consequent regular monitoring of the quality of the programmes and the joint development of teaching materials and their dissemination.

Objectives and scope of strategy

The major objectives of this strategy include:

- Strengthening the postgraduate training capacity in economics in Nigeria;
- Developing and enhancing Masters and PhD programmes in economics in Nigerian universities to a high level of excellence where they have not already attained that level;
- Facilitating the training of Nigerian economists and enhancing the staff development efforts of numerous departments of economics in Nigerian universities and research institutes; and
- Attracting the support of government, individual universities and available outside assistance to sustain postgraduate training in economics in Nigeria.

In the initial stage the strategy covers existing departments with postgraduate training programmes. However, it is designed so that other departments could easily join in the collaborative scheme.

The collaborative framework

The key element of the strategy is collaboration among participating economics departments in order to strengthen the postgraduate programmes in individual departments. This involves establishing and operating joint teaching facilities for courses, and exchanging staff or increasing mobility of staff so that staff from a particular zone can be involved in teaching courses in other zones. In addition to the joint teaching facilities, departments would collaborate in curriculum design and development, teaching material development and supervision of thesis research. This strategy retains the integration of postgraduate programmes within existing institutional structures so that institutional weaknesses of participating universities would not adversely affect the final output. Efforts at the Masters level are thus expected to dominate the initial stage of this strategy with collaboration at the PhD level witnessing greater involvement of a limited number of institutions with the capacity to handle training at that level.

The MSc programme

Given the available facilities for undergraduate training in Nigerian universities, about a dozen economics departments offer the MSc degrees. These provide a solid base for collaborative effort in postgraduate training. The need to produce

a solid input into the PhD programme has also influenced the design of the MSc programme. The MSc programme therefore recognizes the staff development objectives of a number of departments. Thus, the collaborative MSc programme prepares a smaller group of economists to undertake study at the doctoral level. This prepares them for a career in teaching and research in universities and specialized research institutes or in public policy analysis and economic management in government or the private sector.

The MSc degree would consist of three principal components (core courses, elective courses and project/thesis) to be completed over a period of 18 to 24 months.

The three core courses would be microeconomic theory, macroeconomic theory, and quantitative methods. Each would be run for two semesters accounting for three credit units per semester, amounting to 90 contact hours. At least two elective courses would be run, each for two semesters accounting for three credit units per semester. Each participating department would be entitled to increase the number of elective courses if it so desired, depending on its capability.

The research component would carry a six credit unit. The individual university would determine if the requirement is for project or thesis. The student would be expected to spend between 6 and 12 months on the research component.

The minimum number of credits allowed for the award of Masters degree would be 36 units, as follows:

3 core courses of three units each	=	9 units
2 elective courses of 3 units each	=	<u>6 units</u>
		<u>15 units</u>

Fifteen units per semester make a total of 30 units for a season of two semesters.

Core and elective courses	=	30 units
MSc thesis or project	=	<u>6 units</u>
		<u>36 units</u>

Since these are minimum requirements, participating universities would be at liberty to increase the number of electives required.

The PhD programme

The strategy envisages that the success of the PhD training would depend on the soundness of the Masters degree programme and the level of resource mobilization for it. In most universities, allocation to postgraduate studies hardly takes due cognizance of the special requirements for PhD training. While all departments currently offering the PhD are encouraged to continue, the strategy calls for greater collaboration to use existing facilities more efficiently so that areas

of excellence are recognized and effectively utilized. The joint teaching facilities should also be used for the PhD programme wherever possible. At the PhD level, however, attention should also be paid to facilities outside the area facility.

The strategy recognizes the usefulness of the various modes of organizing the PhD. While it focuses on PhD training in Nigeria, the capacity for PhD training at an internationally acceptable level exists in some economics departments in Nigeria and a number of universities have attained the level of excellence to sustain PhD training at an international level. The collaborative effort can thus include a "sandwich" PhD between Nigerian universities. Where scholarships are available for staff development abroad, this would be welcomed to broaden and diversify the experience of university staff. However, overseas training should be seen as a supplement to internal efforts and not a substitute. It is not envisaged that Nigerian students will go overseas to pursue courses as a substitute for training at home. It is thought, however, that in order to reduce in-breeding and adherence to certain dogmas and to broaden horizons, a 4- to 6-month exposure in an overseas institution would be desirable.

The PhD programme should have two basic components: course work and thesis research. While course work is considered very desirable, in the present circumstances of staff shortage advanced reading could be substituted for structured course work. Individual universities could determine the particular format to be followed depending on their staff strength to mount course work, and the number of applicants for the PhD programme.

VI. Implementation of the training strategy

Joint facility centres (MSc degree programme)

Given the number of universities in Nigeria and their geographical spread, it is undesirable to have one joint facility. The choice of location is based on easy access and the state of existing facilities. We therefore suggest the following three centres at the initial stage:

- University of Ibadan
- Ahmadu Bello University or Bayero University, Kano
- University of Nigeria or University of Port Harcourt.

The collaborative effort requires that staff movements from universities to the various joint facilities are made easy. Support for the collaborative effort should ensure that the best human resources are made available to all facilities. The coordinating unit should identify staff and arrange their stay at facilities where they are required.

Administration and management of the joint facility

The joint facility would have two levels of management. The first would be the Committee of Heads of Departments. It would be the responsibility of this committee to specify broad guidelines for the collaboration. This would include the development of curricula, textbooks and provision of financial guidelines. This committee would also receive reports from the management committee of the host institutions.

The second management level would be the Management Committee of the collaborating institutions. This committee would consist of the heads of departments of the collaborating institutions in a given cluster. The chairperson of this committee would be the head of department of the host institution.

There would be a Programme Director for the entire joint facility who should be a senior academic and would be responsible for the day-to-day operations.

The heads of departments considered the procedures for funding this programme. The normal procedure for receiving external funding is through the NUC which gives approval for receipt of such funds. Once funds are received, they can be sent down to the appropriate university for disbursement. A number of heads of departments were sceptical about disbursements made through universities because of the possibility that some vice-chancellors might exercise influence over the funds and divert them to other uses. Similarly, concern was expressed about bureaucratic delays in the university bursaries which could impede the disbursement of funds and therefore obstruct the smooth operation of the scheme.

In order to minimize these problems, it will be necessary to have a special account incorporated for this purpose, called Special Graduate Education Programme for Economists, or other acceptable name. The grants for this programme would be lodged with the NUC and the money subsequently deposited by the NUC in the special account. The Director of the Programme would be responsible for operating the account.

VII. Sources of funding

Sources of finance will comprise external and internal funds. For the effort to be sustainable, some local input of resources is necessary so that when external funding runs out the programmes are not scrapped. It would be desirable in the intermediate run to have commitments both in principle and material terms from domestic sources. In the short run, given the present situation of the Nigerian economy, the major part of resources required will, however, have to come from external sources.

VIII. Preliminary cost estimates of MSc and PhD programmes

Cost estimates for the MSc and PhD programmes over a three-year period are provided in Tables 7 and 8. The underlying assumptions for the estimates are given in Appendix A for the MSc programme and Appendix B for the PhD programme.

Table 7 Preliminary cost estimate of collaborative MSc programme
(1990 US \$'000)

Item	Year 1	Year 2	Year 3	Total
<i>A. Programme management</i>				
Secretariat	196	196	196	588
Committee of heads of department	30	30	30	90
Sub-total	<u>226</u>	<u>226</u>	<u>226</u>	<u>678</u>
<i>B. Core courses</i>				
Start-up grants	240	-	-	240
Operating grants	720	1,440	1,800	3,960
Curriculum sub-committee	44	44	44	132
Teaching material	50	50	50	150
External examination	48	48	48	144
Sub-total	<u>1,102</u>	<u>1,582</u>	<u>1,942</u>	<u>4,626</u>
<i>C. Elective courses</i>				
Planning grant	18	18	18	54
Student grant	270	270	405	945
Joint facilities	37.5	37.5	37.5	112.5
Course leader/resource persons	-	-	-	-
Sub-total	<u>433.5</u>	<u>433.5</u>	<u>568.5</u>	<u>1,435.5</u>
<i>D. Thesis research</i>				
Research grants	-	600	600	1,200
External examination	-	180	180	360
Sub-total	-	<u>780</u>	<u>780</u>	<u>1,560</u>
Sub-total A-D	<u>1,761.5</u>	<u>3,021.5</u>	<u>3,516.5</u>	<u>8,299.5</u>
Contingency (10%)	176	302	352	830
Total	<u>1,937.5</u>	<u>3,323.5</u>	<u>3,868.5</u>	<u>9,129.5</u>

Table 8 Preliminary cost estimate of PhD programme (1990 US \$'000)

Item	Year 1	Year 2	Year 3	Total
<i>A. Programme management</i>				
Secretariat	35	35	35	105
Committee of heads of department	15	15	15	45
Sub-total	<u>50</u>	<u>50</u>	<u>50</u>	<u>150</u>
<i>B. Courses</i>				
Start-up grant	100	-	-	100
Operating grant	200	200	200	600
Curriculum sub-committee	16	16	16	48
Teaching material	100	100	100	300
Sub-total	<u>416</u>	<u>316</u>	<u>316</u>	<u>1,048</u>
<i>C. Thesis research</i>				
Research grants	-	200	200	400
External examination	-	-	150	150
Sub-total	-	<u>200</u>	<u>350</u>	<u>550</u>
<i>D. Fellowship</i>				
Foreign	-	84	84	168
Local sandwich	-	21.2	21.2	42.4
Sub-total	-	<u>105.2</u>	<u>105.2</u>	<u>210.4</u>
Total	466	671.2	821.2	1,958.4

Appendix A

Estimated costs of collaborative MSc programme

Basic assumptions

1. Participating universities: 20 in the first three years
2. Number of students: Average of 10 per participating university in the first two years and 15 per participating university in the third year.

3. There would be three joint facilities

A. *Programme management*

	Itemized cost (US\$)	Total cost (US\$)
1. Secretariat expenses		196,000 p.a.
1.1 Personnel		
Director: Salary and benefits	30,000 p.a.	
Administrator: Salary and benefits	20,000 p.a.	
Secretary: Salary and benefits	15,000 p.a.	
Clerk: Salary and benefits	15,000 p.a.	
Messenger/driver: Salary and benefits	6,000 p.a.	
1.2 Travel	30,000 p.a.	
1.3 Operations		
Equipment (over three years)	30,000 p.a.	
Office operations	50,000 p.a.	
2. Meetings of committee of heads of department		30,000
• Two meetings annually, three days each		
• 20 participants		
Transport and travel	12,000	
Per diems	12,000	
Other	6,000	

	Itemized (US\$)	Total (US\$)
		9,000
3. Cluster management meetings		
• One meeting annually, two days each		
• 20 participants		
Transport and travel	3,000	
Per diems	5,000	
Other	1,000	
 B. <i>Core courses</i>		
1. Average start-up grant	240,000	
Years 2 and 3	800,000	
2. Operating grant of \$6,000 per student		
Year 1 120 students	720,000	
Year 2 240 students	1,440,000	
Year 3 300 students	1,800,000	
3. Meeting of curriculum sub-committee		44,000
• Assume four meetings per year, 3 days @		
• Average of 10 at each meeting		
Transport and travel	6,000	
Per diems	4,000	
Others	1,000	
4. Preparation of teaching materials and reproduction		50,000
5. External examination		48,000
24 examiners		
Unit cost: Transport and travel	400	
Per diems	600	
Fee	<u>1,000</u>	
	2,000	
 C. <i>Elective courses</i>		
Years 1-3: 2 electives		18,000
1. Planning grants		
\$3,000 per elective	6,000	
2. Student grants		
Numbers of students: Years 1 and 2 = 120		
Year 3 = 180		
Transport and travel		75,000
\$250 per student Years 1 and 2	30,000	
\$250 per student Year 3	45,000	
Subsistence		600,000
\$2,000 per student Years 1 and 2	240,000	
\$2,000 per student Year 3	360,000	

	Itemized (US\$)	Total (US\$)
3. Joint teaching facility		
• Teaching space		
• Personal services		
• Equipment, consumables, communications		
Assume \$2,500 p.w. for 15 weeks		37,500
4. Payments to course leaders and resource persons		18,000
• Course leaders		
Transport and travel	6,000	
Honorarium	12,000	
• Resource persons (two per elective per facility)		15,000
Transport and travel	9,000	
Honorarium	6,000	
Years 1, 2 and 3 for electives $(18,000 \times 6) \times 3$		324,000
5. Preparation of teaching materials and textbooks		100,000 p.a.
D. <i>Thesis research</i>		
Number of students: Year 2 = 120		
Year 3 = 120		
1. Average grant for thesis research of \$5,000		
Year 2 (120×5)	600,000	
Year 3 (120×5)	600,000	
2. External examination		
Honorarium	1,000	
Transport and travel	500	
Year 2 $(1,500 \times 120)$		180,000
Year 3 $(1,500 \times 120)$		180,000
E. <i>Other items</i>		
Assume contingency of 10%		

Appendix B

Estimated costs of PhD programme

1. Participating universities: 20
2. Number of students: Weighted average of two intakes per participating universities in years 1, 2 and 3.

A. *Programme management*

	Itemized (US\$)	Total (US\$)
1. Secretariat expenses		35,000 p.a.
Assume that secretariat would be shared with the MSc programme. Only additional expenses for PhD are shown here.		
Travel	20,000 p.a.	
Operations:		
Equipment	10,000 p.a.	
Office operations	5,000 p.a.	
2. Meetings of committee of heads of departments		15,000
Once annually, three days		
Years 1, 2 and 3, 20 participants		
Transport and travel	6,000	
Per diems	6,000	
Other	3,000	
3. Courses		100,000
1. Average start-up grant		200,000
2. Operating grant per student of \$10,000		200,000
Year 1 20		200,000
Year 2 20		200,000
Year 3 20		200,000

	Itemized (US\$)	Total (US\$)
4. Meeting of curriculum sub-committee		18,000
• Assume two meetings per year		
• Average of 10 at each for two days		
Transport and travel	6,000	
Per diems	2,000	
Other	1,000	
5. Preparation of teaching materials and textbooks		100,000
B. <i>Thesis research</i>		
Number of students: Year 2 = 20		
Year 3 = 20		
Average grant for thesis research	10,000	
Year 2		200,000
Year 3		200,000
External examination (Year 3)		150,000
Assume 10 students would complete by end of third year		
Honorarium	1,000	
Transport and travel	500	
Fellowships		
Assume 10 fellowships starting in the second year		
Each fellowship would be for 12 months abroad		
Living expenses	1,200 p.m.	
International air travel	2,400	
Total for 10 fellowships for 6 months		
Living expenses		70,000
Travel		12,000
Total of 10 local fellowships for local sandwich		
Transport and travel	120	1,200
Subsistence	200	2,000

Notes

1. Federal Republic of Nigeria, 1981.
2. See Section 10 of the Decree No. 16 of 1985, incorporated in the NUC Amendment Decree 41 of 1988.
3. See also the first study, Ajayi, 1990.

References

- Ajayi, S. Ibi. 1990. *Graduate Training in Economics in Nigeria and Ghana*, AERC Special Paper No. 6. Nairobi: Initiatives Ltd.
- Ajayi, S. Ibi, Pegatienan, H. Jacques and Mukras, M. 1990. *Graduate Training in Economics for Africans: A Joint Report*, AERC Special Paper No. 5. Nairobi: Initiatives Ltd.
- Nigeria, Federal Republic of. 1981. "National Policy on Education." Lagos: Federal Government Press.
- NUC. 1988. *Twenty-five Years of Centralized University Education in Nigeria*. Lagos: National Universities Commission.