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UNIVERSITY ECONOMICS IN ANGLOPHONIC AFRICA:

A Modest Critique from A Consumer Viewpoint

by

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On a cloth untrue with a twisted cue,
and elliptical billiard balls -

- The Mikado

I.

The largest consumers of African university graduates in economics are African civil services followed at some distance by African parastatal enterprises, African universities, and international organizations. Without in the least arguing for complete consumer sovereignty one can assert that a basic test of economics teaching in African universities is how well - or badly - it prepares its graduates to tackle the tasks they will face in these institutions. Preservice and inservice courses are necessary but as adjuncts to a basic foundation of knowledge not as a crash retraining scheme attempting to make up major gaps in knowledge, technique, and application.

Not all posts usefully fillable by economists require the same grounding or degree of specialization. For the administrator whose subject matter is partly economics - probably most general and all economic ministry administrators fall in this class - a general or mixed degree including work in economics and administration is probably desirable. For the semi-specialist in

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in economic administration a basically economics degree or a 3-2-2 type mixed degree plus a further year of economics - perhaps after a year or two of service - is needed. All would be government statisticians require a considerable body of work in economics if their economic statistics are to be as well selected and presented as possible. Managers in public enterprises are probably similar to general administrators although those engaged in corporate planning activities would usually benefit from a second degree in business economics or administration.

Professional economist posts in government, specialized in government, specialized agencies - e.g. Central and Commercial banks, and universities require much more and more concentrated economic training. A general 3-2-2 degree is not a very adequate starting qualification (a specialized degree is more likely to be) and should always be followed after a year or two with leave for a second degree.

This sketch already poses one of the basic problems of economics teaching in Africa - how to cater for diverse user needs. The problem is further aggravated by the fact that a good case can be made for economics as a required or widespread optional course for university students who do not intend to pursue it as a general or special degree subject. If manpower were not a problem one might well advise devising a very wide array of courses and programmes but both the cost of maintaining a very large department and - even more - the difficulty of staffing it preclude this.

One possible schema on the programmatic side would include:

- a. an introductory course in economic institutions and problems with elements of applied analysis;
- b. special programmes for Economics/Administration and Economics/Statistics students including "a", economic

analysis, economic development, and a seminar in "applied economic analysis and national policy implementation";

- c. either a four year 4-3-2-2 general degree programme in economics or a three year specialized economics degree (three year general degrees are very thin on the ground in economics no matter how hard the economics faculty try to make the best use of available time);
- d. a diploma course (including seminars in specific policy and programme fields) for generalists;
- e. a second degree course including courses and seminars as well as a thesis for specialists. (Like "d" this should be available on a part time - afternoon, evening, released time - basis to cater for those unable to take leave for full time study.

The last two programmes and seminars or courses in "applied economic analysis and national policy implementation" should, as a matter of course, utilize economic civil servants and managers as guest and part time lecturers. Contact with how economics is actually used (or abused) should be a basic part of a university economic education.

The outline above looks daunting in requirements. Is it impossible? The answer will usually depend on the presence or absence of basically research personnel who can be used for one course or seminar each (especially in second degree programmes) and of "non-academic" economists from government and the directly productive sector. With eight basically full time teaching, six to eight basically research, and -- say -- six part time faculty members the entire programme should be possible without crippling workloads.

To criticise economics as taught in African universities from a consumer viewpoint is not, however, primarily to discuss basic programmes. In a sense it is to conduct an overall examination from first principles to try to see why new graduates are weak in tools, facts, perceptions, and outlooks and what could be done to alleviate this situation. A brief checklist of topical headings would include: theory, "applied economics", models, mathematics and statistics, case studies, research orientation, quality of knowledge, quantity of knowledge, and second degree programmes.

II.

A grave limitation to the usefulness of the main body of economic theory and analysis to those of us who live and work in Africa is its explicit or implicit concentration on two "special cases" - the industrialized capitalist and the industrialized (or industrial sector centred) socialist. * In part the limitation stems from explicit choice of problems not of central interest to the tiers monde, but even more pervasive and serious is the use of institutional and structural assumptions bearing little relation to economic reality in Africa.

* The author has expressed his views on this topic at greater length in Stages in Economic Development: Changes in the Structure of Production, Demand, and International Trade, Bank of the Sudan, Khartoum, 1968 (Yale Growth Center Paper, 1969) and Unit or Poverty: The Economics of Pan-Africanism (with A. Seidman), Penguin, 1968.

Six assumptions in relation to economic structure (i.e. sectoral makeup of production, demand, trade; pattern of relationships within and among sectors; economic and social institutional operating and power structure) underlie most theory:

- 1) relationships between sectors of the economy are numerous and quantitatively significant;
- 2) considerable flexibility exists because alternative useability of factors of production is great enough to adjust output mix to demand changes without either radical price shifts or severe loss of total potential real output;
- 3) flexibility is also present because a range of less than fully used capacity exists in institutions, high level personnel, investible surpluses (real or potential), fixed capital, etc.;
- 4) the pattern of production is relatively balanced in relation to national demand i.e. the bulk of all sectors' and most industries' output is national market directed and the majority of national demand for all or almost all sectors' and most lines of production is met nationally;
- 5) the international economic system - while imperfect - is designed to deal with the major problems confronting the economy as matters of prime concern and nationally either the state or at least national private bodies are in a position to control overall economic decision making explicitly or implicitly;
- 6) economic growth is primarily self generating in the sense that national demand is central in calling forth greater short run use of capacity and long run investment in new capacity and is also primarily nationally sustainable because a substantial intermediate and capital

goods sector at least partially insulates it from direct dependence on the balance of payments as such.

In short most theory is written for nationally integrated, flexible, nationally oriented and controlled, industrial sector centered economies. * To state the assumptions is to see why they and theoretical analysis incorporating them cannot be directly relevant to Africa.

This is not an attack on theory nor a defense in toto of the present "theoretical underworld" especially prevalent in the areas of development, planning, and international economics. A theoretical model or line of argument may be useable only in the context of its original assumptions. However, it may be equally useable - and yield quite different results - when new assumptions are plugged in from the start. A "model" based on the argument that any explanation of an existing situation will serve whatever its rationality or probability and without rigorous examination and analysis is obscurantist and, in the end, counterproductive.

International economic theory is really still based on Say's Law. As a result it is moderately applicable to near full employment socialist or capitalist industrial economies but hardly faces tiers monde reality. Most of the "theoretical underworld" is either shoddy or fragmentary - with the recent works of Prefisch, Seers, Streeten, and Linder among the more notable exceptions.

* Some of the assumptions are less true for socialist theory but the differences are not usually such as to make the conclusions any more directly applicable to Africa.

What is needed is doubtless a new "General Theory" but there are two interim solutions and routes. One is to start from results and construct backwards with rigorous testing. The other is to start with the present theory, compare its conclusions with reality, study the isolated and "underworld" models for insights, check and alter assumptions and move toward a more general and more operational theory. The latter approach, in the author's view, probably is a more hopeful one. The problem however is that African economic teaching tends to follow neither approach. Either Haberler - Viner-Heade (with Nurkse as an aside) are taught more or less straight and the brighter students wonder at the inconsistency of the conclusions with perceived reality or the scattered underworld writings are served up as a smorgas-bord and the combination of weak logic, contradictions, and touch with real situations creates a reaction against analysis as a means to evaluating and predicting as opposed to ad hoc "explaining" in the narrowest and most polemic sense.

Economic theory must be operational unless it is intended to be economic metaphysics. Whatever the value of the latter in the abstract it is a luxury good not well designed for present African consumption patterns. To be operational economic theory must at some level * be based on premises and addresses itself to situations and problems consistent with and relevant to economic reality. Further, to be operational, theory must be analytically (not purely descriptively or polemically) explanatory and of some degree of generality in applicability. These criteria are still too little met in African university teaching today -

* Pedagogical simplificatory devices - e.g. pure competition, pure market socialism, Harrod-Danor-Feldman- are either teaching "machines" or the first stages toward operational theory introducing "complexities".

III.

The basic problem with "applied" economics as often taught is that it is neither applied nor economics. For example labour economics becomes a potted history of the British (or with luck the Ugandan or Ghanaian) trade union movement with obiter dicta from general factor pricing and allocation or more specialized labour market theory for garnish. What real use is this to either the student, his subsequent employer or - for that matter - the lecturer.

"Applied theory" and "special area" theory are surely part of theory - especially in Africa. They are the link between pure conceptualization and reasoning and particular problem analysis or case studies as well as being the basic foundation for the latter.

"Applied economics" proper might include:

- a) introductory economic survey courses with institutional and descriptive emphasis bolstered by outlining key relationships and applications of analytical constructs;
- b) advanced courses dealing with specific fields - e.g. agriculture, commerce, international trade, factor allocation and remuneration - on the basis of applied theory but dealing with actual areas of policy and programme concern (actual or potential);
- c) seminars - hopefully taught at least in part by operational personnel - applying economic analysis to ongoing areas of economic activity both to see what has been done and why and what alternatives were and/or are open and what their advantages, limitations, and requirements are likely to be.

There are three key difficulties in achieving this type programme. First, to be effective a lecturer must have at least a fair working grasp of the economy. Thus either permanent citizen faculty or expatriates with fairly sustained tiers monde

experience are needed. Second, materials must in the main be created by African universities themselves. This can be overstated. The better national economic surveys, a number of recent volumes - e.g. Robsen and Lury Economy of Africa, Killick, Szerezewski, Seidman and Green Unity or Poverty?, a host of research papers and articles done in Africa, and a growing handful of university teaching papers provide a fair range of useable materials at varying levels of comprehensiveness and specificity (and quality!). The compilation of a number of national and regional anthologies from the best of this work to prevent its loss and increase its availability is a priority if we are to secure a growing teaching material and applied economic thoughtbase in Africa. The same holds true for articles in applied theory-e.g. a collection of Dudley Seers' dozen scattered essays on trade and development would be a more valuable teaching volume for international economics in an African university than any existing tome! The third key problem is involving operational economists. What is needed is not potted descriptions nor rambling reflections but a coherent analysis and evaluation. The latter takes time and effort to prepare. However, the difficulty is not simply that of time. Many operating economists feel, with some reason, that university economists are both ivory tower oriented themselves and tend to look down on civil service and business economists as "impure". That type of clash can only be resolved by a genuine, continuing dialogue involving all professional economists, a dialogue which is needed for broader reasons than the pedagogical ones cited here but would be justified on that ground alone.

IV.

A model is a systematic setting forth of a set of key relationships and their impact/interaction patterns under certain (preferably explicitly specified) assumptions as to exogenous and institutional factors. An economic model deals with economic relationships but may define any relationship its author deems central to explaining economic reality as "economic" for purposes of the model.

An operational economic model deals with economic relationships which are at least partially quantifiable (in practice as well as in principle) and is capable of explaining a range of past and present events and -at least potentially- is useable for evaluating alternative choices and decisions and for indicating probable future trends under varied assumptions as to exogenous and policy factors.

This definition implicitly states that at least applied economic theory should often-perhaps normally?- take the form of operational economic models. How often does this in fact happen in African university teaching? Models there are in plenty but they are usually either imported final consumer goods- e.g. Keynesian econometric, Mahalanobis- or highly simplified pedagogic devices. Needless to say, this selection of models tends to create either a belief that economic analysis is simple and non-controversial, a rejection of model building as a game unrelated to serious economic practi- tioning, or both.

The few local models there are often suffer from meretriciousness and a misplaced yearning after econometric elegance. To prove by multivariate analysis that multicollinearity prevents drawing any conclusion as to the relationship of per capita sugar consumption to per capita GDP, footnoting the point that a simple cross-section analysis by country does establish a causal relationship, and concluding with acceptance of the nul hypothesis seems hardly likely to advance the useability of or respect for applied econometric models in Africa.

African economies are-by and large-characterized by: a fairly limited number of likely key relationships; a significant group of key variables (or constraints) not usually included within economic models but which are of critical significance; exceedingly imperfect, incomplete, and/or fragile statistics. Does this combination not suggest that ingenuity should be directed primarily toward incorporating key "non-economic" (or political economic) variables and constraints and toward postulating a set of basic assumptions which bear some recognizable resemblance to reality? Is the forced application of "ad-

vanced technology" to fragile data which really will not bear the weight of reorganization, stratification, etc. really likely to have a high benefit/cost ratio?

V.

The critique of models applies pari passu to much of statistics and econometrics as now taught. Some first degree graduates from African universities are much better theoretical mathematicians and statisticians than the author. Can they really make use of this level of theoretical sophistication except in university teaching, statistical development programmes, and research buildup following the statistical development? If not, is it useful to include this work in first degree programmes now? On the other hand, these same students show limited knowledge of how to apply their knowledge to economic problems, let alone national economic programmes and issues and very uneven comprehension of the nature and limitations of statistical sources and methods used in their countries. An uneasy feeling of stupendous feats of memorization and recall combined with the shakiest of operational grasp often arises from reading papers or talking to students in respect to theory, its application, data sources and their limitations alike.

What answers would one get to the following questions:

When the nature of changes over time in a series are unknown is zero an unbiased estimate of the rate of change? (e.g. suppose the series measures food consumption per capita and is not adjusted for weather, population movements, or income per capita.) If import price series are constructed in a way which uses value per unit of manufactured goods (e.g. per tractor, per car, per lorry, per airplane) are they likely to give unbiased terms of trade change indices? If one assumes marketed domestic food output grows at the same rate as total population and that only urban populations purchase food can one obtain plausible results? (In the Tanzania GDP series the use of these two assumptions leads to the "conclusion" that urban per capita consumption of domestic food is declining 4% a year!) Is employment unweighted by skill levels and with a 0 productivity growth trend an unbiased indicator of real output change in construction, urban services, government services?

What may one conclude if a GDP series based on employment shows an implicit income elasticity of demand for modern sector urban services of 0.3? If taxes on cigarettes are up 8%, consumption down 6%, cash incomes of small farmers down 5%, and urban employment down 2% in a given year when trend values are plus 10% for cigarettes sales and plus 7% and 2% for farm cash incomes and urban employment respectively, what conclusions if any can be drawn about the effect of moderate tax changes on cigarette consumption? If a 75% confidence level (but no more) is attained for rejecting the nul hypothesis and accepting an alternative one should the nul hypothesis be accepted because the confidence level for the positive hypothesis is statistically too low? Under what circumstances and to what extent?

Similarly what of these questions: How can provident fund data be used to check employment and earnings data based on surveys if the latter appear to be internally inconsistent? Can monthly customs duty returns be used to derive a speedy estimate of visible trade and, if so, what are the limitations and margins of error of such a series? If there is a single, or a handful of, commercial banks whose basic accounts are computerized what useable financial data series can be relatively easily obtained as a byproduct of the banks' own computer programmes?

The forgoing are fairly random illustrations of questions which practicing economists and statisticians should be asking fairly frequently. It is doubtful whether present university teaching in mathematics and economics conditions students to ask this type of question or to be able to answer it intelligently. The result is likely to be statistics less relevant than they might be, failure to apply available data imaginatively, and facile acceptance of data based on highly suspect procedural assumptions.

VI.

Case studies and research capacity (of graduates) can be considered together.* If a student has been exposed to working out serious case studies in his university career and has also been assigned seminar and vacation papers of a "problem elucidating and commenting" type

he is likely to be interested in and capable of tackling simple fact finding and interpretation exercises of an applied economic research type. Standard lecture courses, papers, and seminars do not-fairly predictably- appear to have a similar result.

This is of importance. The graduate who believes research is only for PhD holding specialists and is far beyond his capabilities is as crippled as the one who sees it either as a summarizing of minutes on a file or as the product of a survey of the ceiling through a cloud of pipe smoke. In general both research and relevance are concepts held in high esteem by African economics students. Thus teaching directed to an understanding of and ability to undertake applied research whether in government, business, or university should be both possible and popular.

Case studies tend to be few, poorly prepared, oversimplified, potted, and presented to "prove" a point rather than to stimulate thinking and expand critical capacity. An adequate number of research materials and data on past projects and programmes exists in many African economies to allow speedy remedying of these defects. Their accumulation elsewhere should be a matter of high priority- as an interim measure case studies from other African universities and-e.g.- the World Bank can be used to good effect.

Presentation should provide a context, the basic facts confronting decision takers, the actual decisions taken, and the results. Analysis should center on identifying causal relationships, assumptions used and their validity, the aims pursued and the degree to which they have been attained, policies and their relevance to the basic aims as well as their own success or failure, alternative or modified courses of action open in the past-present-future and their probable implications, requirements, and consequences. Open and shut cases are not ideal e.g. the Gezira Scheme (including its weaknesses) is more useful as a case study than the Groundnut Scheme (whether Ghanaian, Nigerian, or Tanzanian). The basic aim of case studies should be to encourage stu-

*The author's views as a consumer of university research are expressed more fully in "Economic Research for Tanzania", Proceedings U. of EA Social Science Research Conference, Makerere, 1969.

dents to think, to reach conclusions, and to recognize that unique, optimal answers are rarely obtainable not to illustrate the lecturer's views (or biases) nor to convey a body of specific facts as such.

VII.

Quantity and quality of background do not lend themselves to easy generalizations but a few comments may be of fairly broad relevance.

Special degree course work is usually adequate in quantity-albeit its particular makeup is sometimes rather recherche. General degree work (including 3-2-2 programmes) is usually not. On the other hand, special degree students more often appear to lack an adequate grasp of the socio-economic-political aims which economic policy should presumably be designed to serve and of the socio-political context within which it operates. A single seminar course (as suggested in Part I) on the economics side and a basic first degree course on the socio-political side might help in this regard without placing unreasonable stress on timetables.

Coverage is increasingly adequate in macro and micro theory (though not always in the relevance of the concepts and materials used or the incorporation of serious local examples), in planning and development, and in the theoretical and technique aspects of mathematics and statistics. "Applied" coverage remains spotty and all too often incoherent. Adequate use does not seem to be being made of optional courses in the final two years which could allow more intensive study of particular fields for the students who wished to develop a special competence in them. A course combining agriculture, commerce, industry, labour, and international trade in forty lectures is understandably likely to be very scrappy.

Criticisms of quality-interpreted as relevance- have already been advanced. However, these is the partly parallel problem of lecturer preconceptions and biases. Some courses are clearly taught on the basis that there are clear, unequivocal, globally applicable answers to all or almost all economic issues and questions. Others

manage to give the impression that economic analysis and its application are basically areas of almost universal agreement and the absence of serious controversies and divergences of view. Neither rigid orthodoxy (of whatever variety) nor universal blandness is likely to be a very fruitful approach in African universities. (The author would consider them to be basically unsound anywhere but that may be his bias!) They do not prepare the new graduate for the situations he will face where easy application of any orthodox deus ex machina is likely to illustrate only one proposition-facile descensus avernum- while universal agreement on the interpretation of and action logically following from available facts is normally notable for its absence.

VIII.

Professional expectations and second degree programmes are to a certain extent interrelated problems. The absence of seminars and courses based on actual economic problems and taught at least in part by practitioners seems -in many cases- to lead to graduates either having no real views as to what an economist in government or business can do or to a frighteningly inflated concept of The Economist As Platonic Guardian. The latter is all the more dangerous because at least a number of African governments do place very considerable weight on economic advice and the views of economists.

These expectations-or absence of expectations-can lead to very rude awakenings. Partly, one must hasten to confess, these result from inadequate initial inservice courses and less than imaginative use of newly recruited economics graduates. Many graduates very clearly do not realize that a first degree (especially a general degree) is very far from being a full professional qualification. Equally many seem to believe that to be an economic administrator rather than an economist proper is a mark of failure. Surely a better presentation of the uses of economics and economists in the universities could do something to alleviate these attitudes and resultant disappointments?

At the same time, the inadequacy of a first degree as a full professional qualification (or base) combined with the scarcity of competent economic civil servants and managers makes the provision of second degree courses -in Africa and preferably on a part as well as a full time basis- a matter of some urgency. In the first instance these should cater for the needs of "applied" practitioners rather than to those ,pre specific to the academic economist or the most specialized of planners and central bankers. These can be deferred to a second stage as can the rather terrifying manpower commitments involved in operating a first rate PhD programme. Second degrees by their alone seem likely to be unsound unless the first degree is a very highly specialized one. Courses to provide additional tools and facts and seminars to give further experience in concept exploration and application are usually as essential as a grounding for professional careers as for the production of acceptable theses.

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