BOOK REVIEWS

Capital Absorptive Capacity in Developing Countries by Willy J. Stevens, Leiden, A. W. Sijthoff, 1971, xvi+215pp.

I

The book under review is the first comprehensive attempt to analyze current thinking concerning the concept "absorptive capacity" that has so far received fragmentary attention in economic development literature. Stevens's contribution, if not necessarily original, is that he has systematically and comprehensively analyzed various versions of the concept and used them as his departure from a static approach to a more operational definition.

Like any other economic concept, what is important is the practical usefulness of the concept that makes it possible to measure a country's absorptive capacity. Stevens has made a painstaking inventory of the ill-defined notions existing in development literature. Based on this inventory he presents his own refined definition of the aggregative absorptive capacity and makes it easy to apply it in our urgent task of accurate measurement.

The departure from the existing concepts of "capital absorptive capacity" is in the introduction of his operational and measurable definition which is as follows: "it is the optimum aggregate amount of private and public investment opportunities that—within a given time span of three-five years—can be undertaken, successfully implemented and subsequently productively operated under the assumption that adequate domestic and foreign savings are forthcoming and that the most appropriate choice of techniques is being used." (pp. 51–52)

It is obvious that the above definition differs essentially from the widely held view of the absorptive capacity concept.

Characteristic of the existing approach is a bias limiting the absorptive capacity concept to the amount of foreign capital that can be absorbed. This is true of authors like John H. Adler, Ravi Gulhati, Hollis B. Chenery and others. This limited approach is contested by Stevens for the very reason that it is bound to be inconsistent with the classical view that foreign capital has the effect of supplementing domestic savings.

Stevens's "aggregative absorptive capacity" is expressed as the sum of total investment opportunities inclusive of foreign capital and the cut-off point is determined by the decreasing curve and marginal rate of return. The "residual absorptive capacity," as Stevens defines it, is represented by the magnitude of the absorptive capacity for foreign capital.

II

While Stevens proposes to take national financial profitability as the best yardstick, it is essential to understand the apparent differences which arise from the use of different measuring rods in selecting the appropriate cut-off criterion. In order to

demonstrate this, a comparison may be made of the different numéraire explicit in three different approaches.

(1) John H. Adler........the marginal rate of return at a rate of 6 per cent.

(2) Ravi Gulhati........the incremental capital-output ratio of 3.0 as the maximum acceptable amount of development outlay per unit of output.

(3) Hollis B. Chenery........the constant marginal capital-output ratio.

While it is useful to pinpoint the apparent differences in the above three approaches, Stevens is sometimes too critical and thus unable to draw on the merits of the three authors.

More important than substantiating the differences is that the above numéraire represent three different approaches and reflect varying underlying philosophies of measurement techniques. Adler, who was a pioneer in absorptive capacity study and is certainly responsible for the World Bank's thinking, has more in common with the social cost-benefit approach adovocated by I.M.D. Little than Stevens apparently recognizes. As Stevens rightly puts it, Adler was the first to lay a foundation in establishing systematic guidelines for absorptive capacity studies, and his work is still marked by its comprehensiveness in that it deals with the time span of the calculus, concerns the delineation of the individual projects, relates to the pricing of costs and benefits, and deals with the selection of the marginal rate of return. (p. 88) Stevens's criticism is especially directed at Adler's measuring rod or numéraire which seem to lie in the introduction of a uniform rate of return at the margin of 6 per cent in cost-benefit analysis. Certainly the positive and negative aspects of specific values in the numéraire employed is quite important for measurement methodology. But one should not lose sight of Adler's pioneering contribution which he made in assessing, in quantitative terms, the intrinsic value of costs and benefits that should accrue to a society rather than to individual projects per se. Putting this argument more directly, if one wishes to allow for certain magnitude of value judgment in determining investment allocations, it depends very much on the welfare function held by a decision maker (or politician) as to what specific value will be selected as a measuring rod.

III

Again, Gulhati's approach is dismissed by Stevens because his capital-output measurement technique does not adequately reflect the financial profitability of capital. Stevens's comment on the capital-output measurement technique is substantial in that, though operationally preferred over the marginal rate of return approach, very few developing countries have so far succeeded in building up a meaningful aggregative investment-output schedule based on a project-by-project, or sector-by-sector basis. (p. 107)

Here again, a word should be mentioned concerning the way Stevens is inclined to dismiss the above approach. Stevens contends that capital-output ratios only serve as a first approximation to capital productivity; moreover, whereas unusually high ratios tend to reflect inefficiency, low ratios do not necessarily imply that capital is used profitably. (p. 107)

It appears to the reviewer that his criticism is too general, not only on a theoretical level but also as a consequence of his cursory statistical test, to dismiss the capital-output measurement technique. Although he acknowledges the practical usefulness of Gulhati's approach, it is not convincing when Stevens sees it as a doubtful venture to

design a demand schedule for investment related to capital-output ratio for planning purposes.

Would not Stevens's argument be more persuasive for example if he referred to the technique of budget resources once employed in Indian planning?

Chenery's approach "past rate of investment" is, according to Stevens, a hybrid of "target cum absorptive capacity" and therefore does not satisfy all the requirements necessary for absorptive capacity measurement technique.

IV

It may follow from the review of the existing approaches that the measurement technique of aggregative absorptive capacity is still in its infancy and not fully developed as an operational tool. Indeed, Stevens has extended a considerable degree of effort in drawing on the practicality of previous existing measurement techniques. More than half of his book is a critical review of thinking on the subject. The latter half of his book is an attempt to develop what he calls "a national financial profitability measurement technique." Chapter V constitutes the central theme of the book.

His measurement technique seems to be a hybrid of (a) the social cost-benefit analysis, notably represented by Little/Mirrlees method (I.M.D. Little and J. A. Mirrlees, *Manual of Industrial Project Analysis* [Paris: OECD Development Centre, 1969]) and (b) the discounted cash flow method employed conventionally in private profitability calculations. The main characteristic of Stevens's technique is, for the purpose of project appraisal, the practical usefulness with which it is made possible to quantify the aggregative absorptive capacity of a country by (step A) screening all projects through a national financial profitability test and (step B) aggregating all investments which show a discounted cash flow exceeding the cost of capital.

This approach is more than a hybrid or synthesis of the existing measurement techniques. First, it makes it possible to assess the "intrinsic value" of an individual project (and/or a cluster of projects) from a national economic point of view. Secondly, it internalizes sizable amounts of externalities to the extent they can be measured and identified. And thirdly, it excludes so-called social returns and costs which may be incorporated for other than a financial counterpart in an economy.

Stevens's approach is characteristic of a dynamic measurement context in which subjective social considerations like income redistribution, unemployment, etc., are not a part of his national profitability analysis. Since this question tends to boil down to a difficult problem of fixing social weights and determining the time span over which to postpone the present value of future income, Stevens seems to have bypassed the most controversial issue of weighting social considerations and rather limited his measurement tools to real financial productivity.

This being the case, it seems to the reviewer that the debate stimulated by Stevens should not be about the need to dismiss such social considerations but about alternative ways of incorporating them, if necessary, in such a way that makes it possible to pass social valuation on to the decision maker's welfare function. The task for practical purposes is, as Stevens has attempted, to develop different types of national parameters that may make it possible to properly appraise varying accounting price methods. It is, however to be admitted that until any alternative method is developed,

Stevens's procedure limiting national financial profitability is the most effective operational tool.

Overall, Stevens leaves us with the overriding task of measuring absorptive capacity more successfully than he has elucidated in this book.

Finally, but not the least important is the existence of more than two dozen printing errors. Most of them should have been corrected before the book left the printer for circulation.

(Noboru Tabe)

Rural Hausa: A Village and a Setting by Polly Hill, Cambridge, Cambridge University Press, 1972, xvi+368pp.

This is the third major book written by Polly Hill as a case study of African rural societies. (If her general survey of Gold Coast cocoa farmers is included, it is her fourth book.) It presents a clear picture of what is actually happening at the micro-level as opposed to macro-level, and questions some conventional notions and theoretical frameworks of African rural development which prevail among social scientists and officials who are concerned about Africa. Like her previous books this one is also filled with new informations which she presents with the clear intention of demolishing some misconceptions about the behavior of farmers in Africa and more specifically about the way of life of the particular but important group of people in West Africa called Hausa.

The book is unique in that the second half of the volume is devoted to commentary which includes a Hausa glossary. Here the author explains the Hausa terms and concepts employed in her survey presented in the fourteen chapters which constitute the first part of this book. As the author explains in the preface, the commentary is "partly intended as a separate browsing ground," and "one reason for splitting the book into two sections is to enhance readability; the development economist may ignore the commentary, while the reader in search of 'background' may leave most of the chapters unread." In doing this the author succeeds in making the analytic part of the book fairly concise and the argument clear and she is able to include many general reference materials on Hausaland in the commentary section.

The village chosen by the author for the case study is Batagarawa, situated about six miles south of Katsina city in the Northern part of Nigeria and very close to the border with Niger. The population of 1,395 is composed of some 171 farming-units. The crucial household characteristic here is the paternal *gandu* which is "a voluntary, mutually advantageous, agreement between father and married son, under which the son works in a subordinate capacity on his father's farms in return for a great variety of benefits including a share of the food supplies." (p. 38) Many of the farming-units are composed of paternal *gandaye* (plural of *gandu*), and this institution enables a father to secure enough family labor for farming while giving security to his sons and enables them to obtain their own private land, etc. *Gandu* relationships usually break up soon after the death of the father. Here the reader is warned that an understanding of the Hausa farming system and its economic position cannot be obtained without an understanding of this particular Hausa institution.