

Book Review

Ali Khan and Ismail Sirageldin. *Research in Human Capital and Development*. Vol. 2. Greenwich (Connecticut)/London (England): JAI Press Inc. 1981. Pp. 223.

The book under review contains a collection of papers which examine the role of human capital formation in economic development. Most of the articles included in the volume lie at the frontiers of the current research. A good review of the book requires a comprehensive discussion of a vast literature, but the concise, though terse, review contained in the introduction by the editors Khan and Sirageldin is difficult to improve upon in this context, and is therefore not attempted.

The first article by Takayama and Hamda is an extension of Sen's ordinal approach to poverty and is also an improvement over earlier efforts of Takayama to link Sen's ordinal measures of poverty to the measure of inequality — Gini Index. The departure from Sen's poverty measure involves a shift from poverty distribution to censored income distribution. Using censored income distribution truncated by the poverty line, Takayama and Hamda demonstrate that any ordering of inequality based on this distribution can be extended to any ordering of poverty.

It is well known that "the concept of poverty has many different facets, which encompass many dimensions, so that a complete ordering that is satisfactory to everybody is hard to find". The authors by imposing a restriction on poverty line (it should be below the median income of the people; otherwise monotonicity axiom will be violated) and applying utilitarian measure of inequality to the censored distribution obtain a measure of poverty. The implications of this poverty measure are discussed in a case study of Japan with the discomfiting finding that it is difficult to fight against poverty "even in a relatively lucky situation in human history".

The second article entitled "Paradoxes of Work and Consumption" by Keyfitz is an imaginative piece of research which identifies some of the possible implications of high productivity growth in the primary and secondary sectors for the growth and composition of the tertiary sector, the nature of market and the international economic relations. It starts with the question "what would people do with 82 times of the salaries to spend" as implied by a targeted growth rate of 4.5 percent in real national income per year in the U.S. economy. Since the time sets a limit on the consumption of good — "we can only eat so much, can only drive one car at a time" — a shift to production and consumption of non-goods has to be made. The post-industrial stage is to be characterized, therefore, by the rise of the tertiary economy.

Interestingly, the decision to produce services in the tertiary sector can hardly be attributed to the choice of individuals involved in the process as consumers or producers. "Somewhere at a high level the decision has been made in favour of the Voyager space-craft and against planting flowers in the parks and this decision on the product determines who will get jobs". The evolving system is shorn of the self-regulation to strike a balance between an individual's work preference and consumption desires. The wedge is driven because the non-market forces – government, legal systems, trade unions and corporation – dominate decision making regarding wages and prices. An equally interesting, though less desirable, trend of this continued growth, involving a shift from the tradable to the non-tradable growth, manifests itself in a reduction in the international trade and aid.

Since the existing volume of goods can be produced in 15–20 hour work week it is pertinent to ask, why people do not opt for less number of hours of work as conjectured by Keynes. Presumably either working on a paid job is seen as 'getting near the action' or it is the 'thread of existential emptiness that lies behind the widespread insistence on work'. The paper is quite thought-provoking and successfully highlights the inconsistency between the current attitude and goals on the one hand and the demands of post-industrial growth, on the other. The subject matter of economics hardly escapes this challenge – a shift from goods to non-goods, a recognition that "freedom of market has to be curtailed" and regulations and interest groups have to be reckoned.

Ronald Findlay and Carlos A. Rodriguez, in the paper on "A Model of Economic Growth", make a pioneering effort to end the 'disjunction' wherein growth models failed to incorporate education, while human capital investigation hardly reckons with the economic growth. In the spirit of Johnson's call for 'generalized capital accumulation', the authors consider the investments in human and physical capitals simultaneously. They construct a two-sector general-equilibrium model with two kinds of labour (skilled and unskilled) and two kinds of capital but aggregate the consumer and capital goods into a single all-purpose good *a la* Solow. Under the assumption of a perfectly elastic supply of unskilled labour, a bold assumption of course, and imposition of the restrictions, similar to those imposed by Uzawa – that the skilled labour producing sector is a less intensive user of skilled labour – the system is shown to converge to a balanced growth path at an equilibrium ratio of physical capital to human capital. The effects of saving rate, and productivity of unskilled labour, on equilibrium position are traced. In an examination of the consequences of educational subsidies, an interesting result – that educational subsidies may reduce the skill content of the labour force in the long run – is arrived at.

The failure of the neo-classical human capital theory to explain the persistent positive correlation between non-human wealth and the accumulation of human capital has often been ascribed to the unrealistic assumptions of the theory, e.g.

perfect capital market or perfect foresight. Graham, in the paper on "The Influence of Non Human Wealth on the Actual Accumulation of Human Capital", takes an exception to these contentions and argues that "even if capital markets are perfect and individuals possess perfect foresight the stock of non-human wealth makes a difference". He demonstrates in this paper that the traditional theory with all the assumptions can explain the positive effect of non-human wealth on human capital investment. The problem lies not with the assumptions but with "in-adequate grounding of the theory". In the framework of utility maximization rather than that of wealth maximization, which, according to Graham, is not valid when one of the assets in portfolio is human capital, the theory predicts the positive association between non-human wealth and human capital formation.

William P. Butz, in the article "The Changing Role of Breast-feeding in Economic Development", attempts to explain the decline in breastfeeding which generally occurs as the economy experiences development. Using a choice theoretic framework – elevation of breastfeeding from a custom to a decision variable – a model of breastfeeding, contraception and birth-spacing is constructed. The model yields quite a few testable implications. Breastfeeding is negatively associated with the rise in the market demand for female labour.

Macro ramifications of this individual behaviour pattern reflect the importance of specialization and the physical transfer of productive processes out of home, leading to an increase in the value of human time for changes in the practice of breastfeeding in the society along the development path. In no way does the model suggest that policies envisaged to increase the demand for breastfeeding will be unsuccessful; rather "it might be wise in some situations to concentrate on lessening the undesirable effects of declining breastfeeding". More in-depth empirical investigations are needed to assess the policy relevance of this model.

Mallar and Maynard, in the paper "The Effects of Income Maintenance on School Performance and Educational Attainment", investigate and assess the effect of negative income tax (NIT) on children's school performance and educational attainment – long-run benefit of the programme. A programme such as NIT bears upon the household's time and resource allocative decisions. Direct effects of these decisions, stemming from the improvement in home environment and child's health conditions along with indirect programme effects via parental responses, influence the children's school performance and educational attainment. Based on two NIT experiments, Rural Income Maintenance and New Jersey Income Maintenance, the empirical investigations are suggestive of a positive programme effect both on school performance and on educational attainment. Their exercise, "clearly establishes a need for further research in this area" because the findings lack generality.

Unlike many other papers included in the volume, the paper by G. Rodgers on "An Analysis of Education, Employment and Income Distribution Using an Economic Demographic Models of the Philippines" is too demanding for the general

reader. Based on *Bachue Philippines*, whose abridged version is provided in the appendix, Rodger's paper is an attempt to understand the relationship between education, employment and income distribution.

In contrast to the standard version of the *Bachue Philippine*, in which output is exogenously determined, hence no role of increase in the educated labour supply in productivity gains, the model used in this paper is modified to bring it into line with the human capital approach. The fixed output assumption is changed to accommodate an aggregate Cobb-Douglas production function with proportional adjustments in sectoral outputs. The results yielded by the exercise suggest that "at best a few percentage points on output and slight decline in inequality could be obtained after a generation with human capital development approach". Education further loses its significance if human capital theory is combined with a structuralist view of the labour market. In this case, a rise in the secondary education is associated with lower output.

Welfare implications of the inflation experienced by Argentina are traced by Chu and Feldenstein in the last paper of the volume. A macro-econometric model is developed to analyse the effect of various government policies on the inflation. The three major parts of the model are : (i) a wage equation for a group of industries; (ii) the description of the money sector of the economy and explanation of the inflation; and (iii) computation of the distortion in relative prices which influence the rate of inflation. The simulation results show that the inflationary spiral of the late Seventies can be attributed to governmental policies to raise real wages through freezing output prices and increasing nominal wages. Interestingly, the outcome of these policies was not an improvement but a decline in the real wages. The counterfactual scenario — the non-intervention of the government — would have been associated with a significantly higher level of wages, according to the simulation exercises.

The book is a welcome addition to the existing literature on the subject. It constitutes an essential reading for serious researchers and graduate students engaged in exploration of the nexus between economic development and human capital. Admittedly, the book is not a leisure-time reading.