

Econometricians Return to Earth

(By One of Them)

THE Fourth Indian Econometric Conference held at Hyderabad between October 28 and 30 will be remembered at least for two reasons, apart from the generous quality of the hospitality of Osmania University under whose auspices it was held. First, the Conference was entirely matter-of-fact; more than thirteen hours were devoted to technical academic discussion. There was little fan-fare and speech-making so characteristic of conferences in India these days. Second, the assembled econometricians devoted a good deal of their technical competence to analysing current economic problems. Thus, while the production function was the high theme of the Bombay Conference in 1963, it was consumption and income studies that dominated the Hyderabad session. A possible explanation of this shift of emphasis may lie in the current interest in problems of income distribution and levels of living.

Consumer Expenditure

Uma Roy Chaudhury's report on trends in consumer expenditure during 1953-54 to 1959-60 traced changes in average level of household consumption over time and space using the NSS data relating to the 7th to 15th rounds. The paper raised interesting methodological issues pertaining to the proper procedure for deflating estimates at current prices into constant prices. Mrs Chaudhuri employed average price indices derived as the weighted average mean with overall ratios of expenditure by three categories (foodgrains, food other than foodgrains and non-food items) as weights separately for each fractile group and separately for urban and rural areas. M N Kapur and A S Chawla studied in their paper the characteristics of middle class families, their number, size and distribution of income; in another paper M K Gupta and Kapur estimated the increase in demand for consumer items of middle class urban families. NS lengar presented two papers, one estimating Engel elasticities by the method of concentration curves and another setting out certain results derived on the basis of new consumer price indices for separate fractile groups for rural West Bengal. A V K Sastry presented projections of demand for selected agricultural commodities in 1970-71, using again the elasticity approach.

T R Ramkrishnan gave a statistical estimate of demand for foodgrains and other foodstuffs by fitting the Tornquist functions. Sumeer Chand attempted to briefly analyse NSS data on consumer expenditure for the purpose of studying the extent of inequality in the distribution of total consumer expenditure of the population in urban and rural areas with the help of concentration ratios. K Krishnamurthy discussed various alternative formulations of consumption functions, estimated by the method of ordinary least squares. KH Bashir fitted the Pareto distribution to describe the income-distribution of urban middle class families.

On the theoretical side, PN Mathur presented a method of deriving indifferent surfaces from data regarding actual choices made under varying income and price situations, as represented by budget studies. The preference surfaces were derived from the group preference surfaces for each homogeneous socio-economic group and the observed budget points were assumed to be dispersed on the balanced plane around the optimal group budget point in a random manner. Mrs V Mukherji, exploiting the analogy between the production function and the ordinal utility function, derived a demand function analogous to the CES production function and discussed the particular estimating problems arising therefrom. An interesting paper, novel in its theme, was that of Bhattacharya and Dey in which they sought to evaluate the effects of public services on income distribution in an urbanised village of West Bengal.

From the point of view of methodology, what struck one was the prominent use of concentration ratios and log-normal hypothesis in many of the studies mentioned above. Another issue that presented itself in empirical analysis rather than as a theoretical problem was that of index number construction in computing price indices, indices of agricultural production, etc. N Ramamurthy's paper was specifically concerned with the index number problem in agricultural statistics relating to area, production and productivity.

The production function and productivity measurement were also the subjects of a number of papers. A joint paper by Ranganath and Krishna Bha-

radwaj discussed the theoretical issues involved in productivity measurement and presented the activity analysis approach to measure productivity. The method was illustrated with an empirical study using Farm Management data. A Parikh's paper was an exercise in measuring crop response and determining the optimum units of fertilisers to obtain maximum yield for paddy and wheat. J Jacob and V N Amble analysed problems relating to cattle feed substitution rates and derived least-cost ratios, assuming different forms of the milk production function. T Rama Rao attempted to distinguish shifts of the production function from movements along it, employing a Cobb-Douglas type function. A Ghosh and A Chakravarty delineated an inter-regional and inter-industrial model for India employing the inter-industry approach. A Chatterjee discussed the trends in productivity in Indian manufacturing industries over the period 1946-48. T Maitra discussed the regional pattern of growth of agricultural output in India during 1950-51 to 1960-61.

Plant Size and Location

An interesting study on plant size, location and time-phasing was presented by TN Srinivasan. The study discussed the problem under the assumptions demand growing at a constant geometric rate, presence of economies of scale and all other input costs rising in proportion to output. The paper led to a brief discussion on the choice of an appropriate discount rate, V R Panchmukhi attempted to develop a simple model of growth incorporating the 'linkage effects' within the probabilistic framework. J K Sengupta presented a generalisation of the Phillips model relating to stabilisation policies, by introducing optimisation of a criterion function and by considering a simple type of non-linear stabilisation policy.

Among the contributors to methodological issues, AL Nagar and N Kakwani discussed the method of making use of *a priori* information in estimation. They derived an unbiased estimator, incorporating the information, in the case of regression and simultaneous equations under exact linear restrictions on coefficients. A paper by N V Jambunathan and Desai studied the relative efficiency of BAN estimates of the Pareto coefficient based on truncated as

well as censored samples. G Divakar Rao presented a study regarding reduction in cost that may be expected by taking a moving sample for price collection, with the price-enquiry integrated with other socio-economic enquiries, as compared with the fixed sample survey.

Other papers presented were: a study of the relative influence of dividend and net worth on share prices

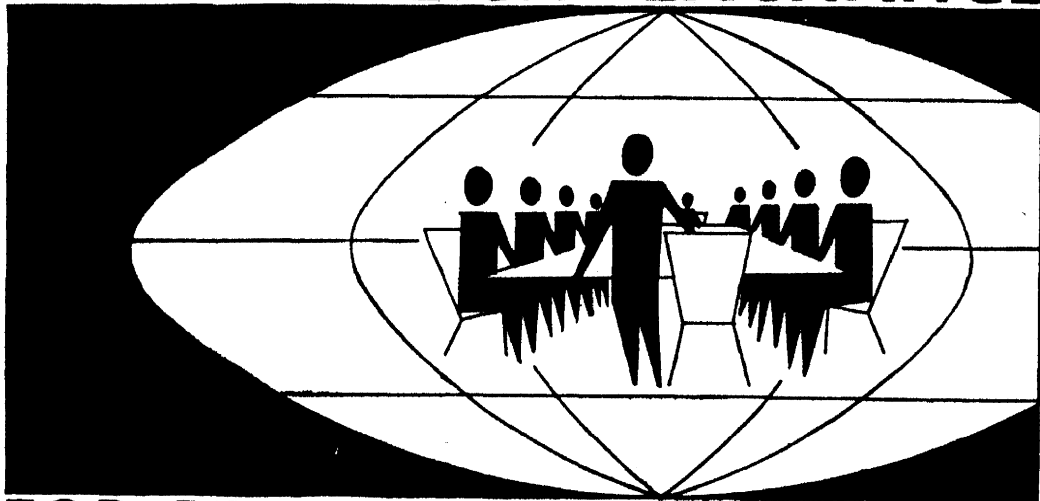
by Lokmatha; an attempt to provide estimates of labour force at five-yearly intervals by KC Taneja and a paper on the teaching of econometrics by Professor Doresemiengar in which he discussed the gradual growth of econometrics and the evolution of the tools employed. A number of other papers submitted to the conference were not discussed as the authors were not present.

Thus the range of topics covered was very wide indeed, reflecting the varied fields in which the young science of econometrics is being fruitfully employed. One consequence of such a diverse menu was that there could be no intensive discussions of particular themes. As the number of econometricians grows perhaps it should be possible to settle upon specific themes to be taken up at each of the conferences.

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