

Brief Academic Record of Shuntaro Shishido

Shuntaro Shishido is presently the Director of Research Institute of Japan, USA and World Modeling and Analysis (RIWMA). He is Emeritus Professors of The University of Tsukuba and International University of Japan (IUJ). Formerly he was the President of IUJ for many years and, later, the Director of Economic Research Institute of Northeast Asia (ERINA). He is also a Visiting Professor of Johsai University. He serves to IUJ, and Niigata University of International and Information Studies, Foundation of Advanced Studies on International Development (FASID) of the Ministry of Foreign Affairs, the International Center for the Study of East Asian Development (ICSEAD) , etc. as their Board Members. Formally he was a chairman of National Economic Accounts Deliberation Council of the government for several years where he was engaged in the reform of Japan's national accounts and input output system. He was also the President of Pan Pacific Association for Input Output Study (PAPAIOS) for 1998 and 2000 which had been founded in 1991 with Leontief as the Honorary President.

Looking back into his personal career, his most important contribution as a government expert was to construct an official planning model for medium and long term forecast in the close collaboration with leading academic scholars during 1960's when the Japanese economy achieved a remarkable performance of a 10% growth rate during the period of more than ten years. The model, incorporating Leontief system of 60 sectors, has served for keeping consistencies among various growth targets such as output capacity, price stability, balance of payments, environmental target, etc. This system continued thereafter as a basis for government planning. In this Leontief type model a special emphasis was laid on changes in technological progress in terms of input of various critical materials and energy as well as labor and capital input. The details of the discussion are described in my paper in a volume published in memory of Leontief two years ago.

Stimulated by this government planning model, Leontief type multi-sectoral model became widely used not only at national level, but also at regional levels. Inter-regional input-output models were constructed and they were widely used for regional economic and social development. Mr.Shishido developed several regional models in which two factors, a) demographic movement, and b) time distance, representing the efficiency of transportation in the Leontief framework which played a vital role for long-term regional growth..

Mr. Shishido's endeavour toward multi-sectoral approach was further extended to multi-country, multi-sectoral modeling. Starting from multi-country global model of purely macro_econometric models, the system developed to multi_sectoral national models with Leontief framework for seven industrial countries and nine Asian developing countries. Among these countries, Japan and United States have a highly disaggregated I-O system for output, trade and prices, enabling to conduct more elaborate simulation analysis on their mutual interdependence. In the late 1980s L.R. Klein's group collaborated under this project. Another type of research was conducted by using the model regarding Japan's ODA to Asian nations, especially to China and Indonesia, revealing its significant impacts on those two countries.

Recently under NIRA's financial support, the above model, further elaborated by ERINA was used for Northeast Asian countries, with a more emphasis on territorial components such as Northeast China and Far-East Russia etc. A strong interdependence between Japan and other nations are highlighted with special emphasis on Japan' ODA and FDI. Another use of this multi-country model was made for environmental analysis with a special emphasis on CO2 emission, and the importance was emphasized regarding the role of cleaner technologies and tax policy.

During the period from 1990 and 2002, Japan's economy lost a vitality for continuous growth as a result of asset deflation in early 1990's with contractive policies. In search for adequate policy measures for a strong economic recovery our research institute started four years ago to improve our Leontief-Keynesian type model (DEMIOS) which had been used in the above projects. Now the model has about 4000 endogenous variables, covering 80 productive sectors and macro-economic variables for fiscal and monetary sectors, including asset markets. So far various policy simulations have been conducted for medium term period and policy proposals have been presented to the government regarding several policy issues such as those on fiscal debt, and encouragement of new technologies on environment and energy, strengthening of social overhead in the context of Northeast Asian development. DEMIOS is presently integrated with the above multi-country model and various scenarios were prepared for international policy proposals.

Finally, regarding more basic studies, Mr. Shishido, as the director of ERINA, made a comprehensive research on international comparison of input-output tables of more than thirty countries, obtaining the result on a historically changing pattern of U-shape in primary input coefficients by sector according to different per capita income levels.

He is a chairman of editorial members of ERINA's academic journal: Journal of Econometric Studies of Northeast Asia (JESNA), specialized in empirical econometric studies in this area. He also made a research in Leontief coefficients in the context of long term technical changes by sector, finding out a unique RAS method, V-RAS, where input-output coefficients, including primary inputs, tend to change consistently under different changes in TFP and relative prices by sectors.

Mr. Shishido has wrote many books, around 70, and articles on his research and policy issues. He has brought up many young academic and government economists during his career as a government economist and academic professional. They are now active leaders using policy oriented models or creating academic frontiers under Leontief's tradition. In collaboration with the Japanese business leaders in late 1980's Mr. Shishido founded PAPAIOS with Profs. I. Ozaki and J. Tsukui. The member of this associations are now around 400 and the papers are published regularly in two journals in English and Japanese, respectively.