THE PROJECT LINK MODEL

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Summary

More than 30 years ago, a core group of econometric model builders met together at Stanford University to plan a research project that has become a statistical model of the world economy. Our central focus was to model the transmission mechanism among major industrial countries. Gradually, almost year by year, new models have been absorbed into LINK; there are now more than 80 national models and some regional groupings of relatively smaller countries. The UN Secretariat has used the LINK model for the purpose of short-term and medium-term projections of the world economy and for policy simulations. Among the most interesting projections and special studies that deal with the main subject of sustainable development at a global level, the author discusses LINK forecasts of three main issues: 1. The oil embargo of 1973 and changes in terms of trade with respect to oil prices, 2. the end of the Cold War and emergence of the Peace Dividend, 3. the reduction of carbon dioxide in the atmosphere. We will show how LINK can be adapted and used for major exogenous changes for broad social issues, and for environmental issues. This discussion of those three issues will not be in the form of an all-encompassing projection to determine whether or not the world economy is to experience sustainable development. It will, however, show how a global model can deal with political, social, environmental, and economic events that are of extreme importance for development.

1. Historical Background for LINK

Project LINK was initiated in 1968 by the Committee on Economic Stability and Growth of the Social Science Research Council (New York) in response to concern about international stability. It was felt among Committee members that the international transmission mechanism was not adequately understood, and there were risks that economic disturbances in one part of the world would quickly become unsettling in other parts of the world in an uncontrollable or destabilizing way.

Early support for a research project on the relevant issues came from the Ford Foundation, the International Monetary Fund, and the National Science Foundation. The immediate response to the perceived problems was to consider the construction of macroeconometric models of leading industrial economies and to link them together in a mutually consistent way to analyze the transmission mechanism through statistical simulation analysis.

Accordingly, leading specialists in econometric model building were invited to a formative meeting at Stanford University in August, 1968. Representatives from Belgium, Canada, Japan, The Netherlands, the UK, and the US attended. A German representative was unable to attend but participated from the beginning in putting the project into action.

A planning committee, consisting of Professor Bert Hickman (Stanford University), Professor R.A. Gordon (University of California), Professor Lawrence Klein (University of Pennsylvania), and Dr. Rudolf Rhomberg (International Monetary Fund), guided the research work in its initial stages, with central headquarters being at the University of Pennsylvania.

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Biographical Sketch

Lawrence R. Klein was educated at the University of California, Berkeley (BA) and the Massachusetts Institute of Technology (Ph.D.). He has served on the faculties of the University of Chicago, University

of Michigan, Oxford University, and the University of Pennsylvania. He was the Benjamin Franklin Professor of Economics and Finance at the University of Pennsylvania, where he taught for 33 years, and now is Benjamin Franklin Professor, emeritus. Professor Klein is an econometrician and constructed several models of the US and various other countries. At Pennsylvania he founded Wharton Econometric Forecasting Associates and was a principal investigator of Project LINK, which combined models from countries throughout the world for studying international trade, payments, and global economic activity. He served as President of many learned societies, edited scholarly journals, and advised governments in matters of economic policy. In 1976 he coordinated Jimmy Carter's economic taskforce in successful campaign for Presidency of the US. In 1980 he was the Nobel Laureate in Economics.