Sir Richard Stone and the Development of National Economic Accounts

Sir Richard Stone was a founder of national income accounting. He was awarded the 1984 Nobel Prize in Economic Sciences "for having made fundamental contributions to the development of systems of national accounts." His death in December 1991 came as the United Nations was revising its System of National Accounts (SNA), the development of which is largely attributable to him, and as the United States was embarking on the path of modernizing and extending its national accounts along the lines of the revised SNA.

Stone began his work in national accounting when he and James Meade prepared an annex on the national income and expenditure of Britain to accompany John Maynard Keynes' 1941 "White Paper" on British war finance. The presentation was a landmark because it applied the double-entry bookkeeping method to national accounts. When applied to sectors of the economy, this method shows how sectors are related to each other and to the economy as a whole. Stone and Meade suggested accounts for four sectors: Household, business, government, and the rest of the world. The application was timely because it offered a method of presenting detailed information about increasingly complex economies at a time when the growing interest in macroeconomics and counter-cyclical policies intensified the need for such knowledge. By illustrating that the expenditures of one sector show up as income elsewhere, the method also offered a way to cross-check the estimates.

That this method, introduced at the time as the "social accounting approach," ultimately received widespread acceptance is a testament to Stone's qualifications as a theoretician, bureaucrat, and statesman. Stone published many articles explaining and expanding the approach and was well aware that its acceptance depended on its potential for practical applications.

International comparability of estimates was also a major concern of his. As early as 1944, while at the United Kingdom Central Statistical Office, he participated in discussions with representatives from the United States and Canada to try to reach agreement on national accounting principles and presentation. It was during these meetings that Stone and George Jaszi, former director of BEA, developed a lasting friendship.

Meanwhile, Stone served as chairman of the League of Nations Sub-Committee on National Income Statistics of the Committee of Statistical Experts. He guided the Committee to a comprehensive presentation of the social accounting approach in 1947. Stone's memorandum to the Sub-Committee, "Definition and Measurement of the National Income and Related Totals," was an appendix to the committee's presentation but in fact made up the bulk of the report. Many countries quickly adopted Stone's approach, establishing a common basis for statistical comparisons between countries.


Though generally satisfied with the 1953 SNA, Stone regretted what he considered its limited scope. Much of his subsequent work concentrated on expansions of the system. His 1954 article "Input-Output and the Social Accounts" supported the future inclusion of input-output analysis and extended the development of the "social accounting matrix" or "transactions matrix." To improve comparability, he conducted studies emphasizing the compatibility of complete systems of price and volume indexes in a national accounting framework. He explored less traditional areas by applying classifications corresponding to those in the national accounts to demographic and population data and developing an input-output model of the education system.

Stone's goal, the extension of national accounting, was fulfilled in 1968, when the SNA underwent its first substantial revision. Stone again served as chairman of the Expert Group, and under his influence the revised SNA included input-output analysis, flow-of-funds accounts, and national and sector balance sheets. It also outlined his "social accounting matrix," which had been widely recognized by that time. Stone continued publishing articles on national accounts well into the 1980's. In a 1986 article, "Social Accounting: The State of Play," he appraised the position of social accounts and considered possible future developments, including improved linkage of social and demographic statistics to economic statistics.

The development of national accounting techniques was not Stone's only interest. He investigated methods of demand analysis, the practical applications of these methods, and more extensive economic models. His 1954 study of private consumption in England, one of the most extensive econometric studies ever conducted, offered econometric insights into saving behavior. Much of Stone's attention during the 1960's was given to directing a Cambridge University project intended to reveal the prospects for more rapid growth of the British economy by developing more extensive models for economic policy. It tied in well with his development of national accounts and intensified his interest in demographic accounting.

Stone's long career included, in addition to the consultancies and chairmanships mentioned earlier, the following: A position in the U.K. Office of War Cabinet, Central Statistical Office, 1940–44; Director, Applied Economics Department, University of Cambridge, 1945–55; Director, Organisation for European Economic Cooperation, National Accounts Research Unit, 1945–51; P.D. Leake Professor of Financial Accounting, University of Cambridge, 1955–80; and Professor Emeritus, University of Cambridge, 1980–91.

Between 1936 and 1989, Stone authored 205 papers and publications (a complete list is available in Econometric Theory, vol. 7, 1991). The following bibliography, arranged chronologically, has been selected to trace his interest in national accounting.

With James E. Meade. Annex to John M. Keynes, Analysis of the Sources of War Finance and Estimate of the National Income


