Robert Eisner, 1922–98

Robert Eisner's Contributions to Economic Measurement

ROBERT EISNER, WILLIAM R. Kenan Emeritus Professor of Northwestern University, died late last year. He will be remembered for his many contributions to the understanding of investment and consumption behavior, macroeconomic theory, and fiscal and monetary policy. At the Bureau of Economic Analysis (BEA) and at economic statistics agencies around the world, he will also be remembered for his work on extensions of the national economic accounts, which, in some sense, may be his most fundamental contribution. Indeed, his approach to economics is illustrated by his choice of topic for his 1988 presidential address to the American Economic Association—"Divergences of Measurement and Theory and Some Implications for Economic Policy."[1] A decade earlier, he reminded other economists that while we may "know the pitfalls of measurement without theory...we may occasionally forget the strength and life that theory must draw from measurement."[2] His empirical work continuously influenced his approach to theory, and his theoretical work led to his passionate calls for improvements in economic statistics.

In the last two decades, many of Eisner's policy prescriptions for the budget deficit, trade, and social security were based on adjustments to related measures that he had advocated and that he had made to correct for the effects of inflation and other distortions. But his interest in measurement issues dates to much earlier in his career (see the selected bibliography). While he was working as an economist and statistician for the U.S. Government and earning his master's degree in economics from Columbia University and then his doctorate from Johns Hopkins University, he participated in discussions about the importance of measurement to theory. In 1951, he commented that survey data "should prove of increasing value in giving empirical content to economic theory," and by the early 1970's, he was an active participant in the long-standing (and continuing) debate about expanding the conventional measures of income and output.[3]

Eisner's later work on expanding the national accounts was motivated by the effects of measurement on theory and policy. In his 1988 presidential address, he stated his belief that many of the Nation's economic concerns were at least partly the result of problems in the measures of income and output and of investment, savings, and deficits. He pointed out that conventional income and output measures excluded household production, capital gains, the services of consumer durables and government capital, and the effects of inflation on asset values and that these exclusions affected our view of trends in income, output, and productivity. For example, the entry of women into the labor force may result in a decline in *measured* labor productivity if they disproportionately fill lower paying or lower productivity jobs. However, it may result in an increase in *actual* productivity if these jobs are more productive than the unpaid jobs that they performed in the home.

In addition, Eisner pointed out that assessing the adequacy of either public or private investment and saving requires that investment measures consistently include all purchases of goods and services that produce a stream of benefits over time. For instance, the purchase of a building by the government should be counted as investment, just as the purchase of a building by a business is counted as investment. He also argued that investments in natural resources and in intangibles such as human capital (education) and technology (research and development) should be treated as investment. Additionally, he stressed the importance of adjustments for inflation and of measuring both flows and changes in the value of stocks in assessing the adequacy of saving and investment.

The effects of implementing Eisner's proposed changes can be significant. For instance, as he pointed out, establishing a capital account for government and adjusting the Federal debt for the effects of inflation would produce a significantly different picture of the Federal budget deficit and would significantly reduce the gap between the U.S. saving rate and foreign national saving rates. Establishing measures of private saving and investment that treat purchases of automobiles and other consumer durables as investment would significantly raise the measures of private saving. Moreover, presenting changes in the stock of wealth as part of a framework that also shows measures of saving from current income would help make those measures particularly useful for understanding savings behavior today, as the recent drop in personal savings from current income is undoubtedly related to the unprecedented stock-market-related gains in household wealth. Finally, adjusting the value of foreign direct investments for the effects of inflation would significantly reduce the size of the U.S. position

1. See "Divergences of Measurement and Theory and Some Implications for Economic Policy" in the selected bibliography.

2. See "New Twists to Income and Product" in the selected bibliography.

3. See the Comment on "The Contribution of Consumer Anticipations in Forecasting Consumer Demand" in the selected bibliography.

as a net debtor nation and would thus mitigate concerns about the adverse effects of the mounting trade deficits.

Eisner's calls for improvements did not fall on deaf ears. His research has left its imprint on the economic accounts of the United States and of other countries around the world. His work on household production, the capitalization of expenditures on research and development, investment in human capital, and environmental accounting inspired a large volume of work at BEA and internationally.[4] In addition, his work significantly affected a number of BEA's key economic aggregates. In 1992, BEA revalued its estimates of the international investment position along the lines he suggested. As part of the 1995 comprehensive revision of the national income and product accounts, BEA moved toward a symmetric treatment of government investment with private investment. And in the upcoming comprehensive revision, BEA plans to better integrate its income and wealth estimates and to move toward the capitalization of computer software.

Eisner's influence on accounting conventions is also reflected in the improvements in the most recent international guidelines for national accounting, which were published in the *System of National Accounts 1993*.[5] These guidelines emphasize the importance of integrating income and wealth accounts, the need to distinguish between nominal and real changes in wealth (and in debt), the need to capitalize computer software and other intangible investments, and the importance of satellite or supplementary accounts in developing expanded sets of accounts.

Eisner's lasting influence reflects not only his research but also his willingness to roll up his sleeves and work with statistical agencies. Over the years, he served as a trusted consultant, adviser, critic, and friend to BEA. In 1998, he provided comments to BEA on its satellite accounts, offered advice on long-term plans, and served as a distinguished member of the National Academy of Sciences blue-ribbon panel on BEA's Integrated Economic and Environmental Satellite Accounts. BEA is both indebted and grateful to him for his encouragement, support, and advice over the years.

4. Eisner was not alone in his advocacy of extended income and product accounts. Richard and Nancy Ruggles, William Nordhaus and James Tobin, and John Kendrick, among others, all proposed extensions of the accounts. Like Eisner, they also constructed new frameworks of accounts that illustrated the effects of their proposed modifications. Their alternative frameworks provided the underpinnings for further research at BEA. For example, see Arnold J. Katz, "Valuing the Services of Consumer Durables," *Review of Income and Wealth* 29, no. 4 (December 1983): 405–27; J. Steven Landefeld, Frank Martin, and Janice Peskin, "Estimates of the Service Values and Opportunity Costs of Government Capital, 1948–78," *Review of Income and Wealth* 30, no. 3 (September 1984): 331–49; Martin Murphy, "The Value of Nonmarket Household Production: Opportunity Cost Versus Market Cost Estimates," *Review of Income and Wealth* 24, no. 3 (September 1978): 243–255; J. Steven Landefeld and James R. Hines, "Valuing Non-Renewable Natural Resources in the Mining Industries," *Review of Income and Wealth* 31, no. 1 (March 1985): 1–20; J. Steven Landefeld and Carol S. Carson, "Integrated Economic and Environmental Satellite Accounts," SURVEY OF CURRENT BUSINESS 74 (April 1994): 33–49; and Carol S. Carson, Bruce T. Grimm, and Carol E. Moylan, "A Satellite Account for Research and Development," SURVEY 74 (November 1994): 37–71.

5. *System of National Accounts 1993*. Brussels: Commission of the European Communities, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, and World Bank, 1993.

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