

COMMENTS

'Interpreting Economic Evidence' by Davidson and Hendry

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The major point of this paper is the close or exact observational equivalence of consumption models where consumption responds to current and past income through a feedback rule, and full rational expectations models, where consumers process all available information bearing on their future well being. This point is clearest where only income conveys relevant information about the future and the optimal predictor is a simple function of recent income. Then the rational expectations consumption function looks very like a standard econometric consumption function. A growing body of research has emerged recently along exactly these lines. John Bilson's paper for the 1979 International Seminar on Macroeconomics, Marjorie Flavin's research in progress, and my own research on micro panel data with Frederic Mishkin are a few examples. There is no meaningful dichotomy in the recent literature between consumption functions with rational expectations and those without. I see this as part of the rather general assimilation of rational expectations into macroeconomic research in those areas where its implications are supported by the data.

Whether consumers use only the information contained in recent income or if they make use of other relevant information, some variant of the stochastic proposition derived in my earlier work ought to hold: Information used by consumers when they decide on consumption in period $t-1$ should have no predictive power with respect to consumption in period t (provided expected real interest rates are constant over time). The authors try to test this proposition with quarterly British data, but I found their tests unconvincing because of their treatment of seasonality. They are right in criticizing my earlier work for its unquestioning use of seasonally adjusted data. In more recent work, I have solved the problem by using data for the fourth quarter of each year; this also avoids most of the adverse effects of time aggregation. Davidson and Hendry instead take four-quarter differences and use data for every quarter. They do not derive any theoretical implications of the rational expectations model for four-quarter differences,

however, so the reader has no guidance in the interpretation of their findings. I would not be surprised, however, if a proper test based on British data rejected the hypothesis of unpredictability. Flavin's recent work gives reasonably strong evidence against the hypothesis for the postwar U.S., and new results of mine confirm the rejection even in a model extended to cover the case of changing expectations of real interest rates.

Part of Davidson and Hendry's paper argues against the endogeneity of income in the consumption function. As they say, the presence of the two variables in the national income and product identity does not settle the issue. The question is, does the arrival of information which makes consumers think they are better off in ways not captured by income coincide with movements of income itself? If it does, the contemporaneous correlation of income and consumption mis-states the effect of an exogenous change in income. The authors mention that two-stage least squares estimates are almost identical to ordinary least squares, which suggests that the bias from endogenous income is small. But this issue deserves much more investigation. Its resolution for U.S. data is one of the main objectives of Flavin's research.

Models of the type advocated by Davidson and Hendry, in which consumers rely primarily on the recent history of income to decide upon consumption, are likely to remain the choice of practical econometricians. They are not dramatically in conflict with the principle of rational expectations. I would suggest, though, the relevance of the recent history of financial variables, especially the real value of the stock market. In the U.S., at least, there is information in these variables relevant for consumption decisions beyond what is contained in income.