

COMMENT

'Trade Specialists and Money in an Ongoing Exchange Economy' by Robert W. Clower and Daniel Friedman

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Clower and Friedman incorporate a specialist-like agent into a general equilibrium framework. At the same time they invest the traditional model with a non-trivial dynamic character. Their specialist coordinates purchases and sales by consumers at 'supermarket' bins. Real households, of course, usually purchase from stores (inventories on display) and stores usually purchase from distributors (inventories not on display) and distributors purchase from producers. None of these transactions are actually governed by specialists. Specialists are most active in financial and commodity markets, and themselves exploit order backlog, inventory-adjustment processes not wholly unlike those that govern capital goods and consumer durables where specialists generally do not operate. Their function is very much like that of a 'store'. The Clower-Friedman story, therefore, carries us some distance in the direction needed to underpin macroanalysis with appropriate microfoundations.

A shortcoming of their model is the 'black box' equation of price adjustment, using a control theoretic approach. But that would seem to me to introduce a different kind of asymmetry into the story: If specialists are 'dynamically rational' why aren't consumers as well? A further bit of 'ad hocery' is the rationing mechanism which the authors assume, but do not describe. A reasonable, explicit model of the way markets handle 'outages' is badly needed. Clearly, inventory and order-backlog adjustment procedures play a fundamental role.

The authors focus on stability results. Not surprisingly the usual, implausible conditions of demand are required to obtain them. It is quite possible that sufficient conditions for market *instability* may be far more plausible. Along this line one thinks especially of the important findings of Donald Saari and Carl Simon (1978) concerning 'sophisticated' and 'simple' tâtonnement processes. Once mathematical economists overcome their prejudices against instability theorems, progress in understanding real world change may be accelerated.

Microeconomic work on dynamic market models is sparse. Clower and Friedman have made a foray into territory on which most theorists have

feared to tread. They have shown that rigorous results can be obtained. One can only hope that they will continue this inquiry, that this tiny band [see also Fisher (1982) and Zemanian (1983)] will be joined by others, and that progress can be made along the lines that would alleviate some of the shortcomings of the theory in its present form.

References

- Fisher, F.A., 1982, Disequilibrium foundation of equilibrium economics.
Saari, D. and C. Simon, 1978, Effective price mechanisms, *Econometrica* 46, 1097–1125.
Zemanian, A., 1983, A dynamic marketing network with monopsonistic acquisition and perfectly competitive disposition, *IEEE Transactions on Circuits and Networks*, CAS-30, 382–387.