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A time-embedded approach to economic equilibrium with incomplete financial markets

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Abstract. In the models of multi-stage equilibrium with uncertain financial markets that have so far been formulated in extension of the classical Walrasian model with only a single stage, each state is completely isolated in its activity. If there is production, it ends in the state in which it begins. Goods that are not consumed within a state merely perish. Nothing can carry over from one period to the next like money might, and comparisons between the units of account in different states may be problematical.
This paper furnishes a two-stage model in which money assists as a special good which agents like to retain instead of consume. Holding money influences utility through pleasures of wealth and in safeguarding against completely unforseen events. The agents' planning is able in this way also to reflect continuing expectations of the future beyond the second stage.
The ability of agents to retain money furthermore has the technical benefit that the survivability conditions needed to establish the existence of equilibrium can reduced to a very simple and yet much more appealing form than has been discerned until now. Endogenous transaction costs on the sellers of financial contracts help in this as well.

Key words:general economic equilibrium, incomplete financial markets, time embedding, retention of money, transaction costs, ample survivability