

The simple case of subsidiary-coin shortages driven by deflation in POW camps

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I modify a prototypical random-matching model of money to match observations of POW camps' simple economies - say, the use of cigarettes as currency through macroeconomic fluctuations. One new result is that deflation may bring about a shortage of subsidiary coin in the sense that some exchanges do not occur because an indivisible "cigarette" becomes "too valuable". This result is particularly interesting because it has been argued that currency shortages would be relieved by the resulting increase in the value of money; that is, deflation. However, this argument does not take into account currency indivisibility as pointed out by Wallace-Zliou [1998]. As far as I know, no researcher has achieved to model the coexistence of indivisible-currency shortages and deflation.

My model is so simple that high-school algebra is enough to work out some examples. Among these are simple economies as in Wallace [1997] but with finite horizon and no exogenous upper-bound on asset holdings. In these simple economies, the role of media of exchange in equilibrium is played by objects (say, "cigarettes") that are useful only to a fraction of agents (say, a fraction of agents is "smoker"). This fraction of "smokers" may be arbitrarily small or not.

In this way we do not find any problems because a certain, or sure, last date as it is argued in Wallace [1997] and elsewhere. Moreover, in contrast to Kultd [1995], my examples are robust to the introduction of "handling" costs of accepting (or even giving) "cigarettes". Therefore, we do not have to work with practically infinite-horizon economies and, consequently, to deal with mathematical difficulties.

In turn, infinite-horizon economies allow us not to assume an exogenous upper-bound for monetary holdings as it has been common practice although it has been also regarded as unappealing.

Keywords: Currency shortages, Deflation, Money demand

JEL Classification: E00, E30, E31, E32

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