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The value of inside and outside money ☆

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Abstract

We study dynamic economies in which agents may have incentives to hold both privately-issued (a.k.a. inside) and publicly-issued (a.k.a. outside) circulating liabilities as part of an equilibrium. Our analysis emphasizes spatial separation and limited communication as frictions that motivate monetary exchange. We isolate conditions under which a combination of inside and outside money does and does not allow the economy to achieve a first-best allocation of resources. We also study the extent to which the use of private circulating liabilities alone, or the use of public circulating liabilities alone, can address the frictions that lead to monetary exchange.

JEL classification: E4; E5

Keywords: Fiat money; Private money; Electronic cash; Monetary theory; Endogenous volatility

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1. Introduction

1.1. Overview

Throughout much of monetary history, publicly- and privately-issued circulating liabilities have coexisted. Privately-issued bank notes have circulated alongside specie or greenbacks, and bills of exchange have coexisted with various forms of outside money. Although it is true that for much of the last 70 years legal restrictions have prevented the private issue of close currency substitutes in the U.S., all legal impediments to private currency issue have recently been repealed. This change in the legal environment has occurred at the same time that it is now technologically feasible to issue a variety of forms of "e-cash", many of which are the electronic equivalent of historically observed private banknotes. Thus we can plausibly expect to see a return to a situation where public and private liabilities circulate side-by-side, and in direct competition with one another.

What should one expect to happen when publicly- and privately-issued currencies or currency substitutes are in common use? The history of monetary theory is replete with competing claims about problems that might emerge—or that might be overcome—when private agents can issue close substitutes for currency. Indeed, it has been common historically to place a variety of restrictions on private note issue as a means of avoiding problems that such note issue might possibly cause.

Some relatively extreme claims have been made for and against the issue of private circulating liabilities. Hayek (1976), for example, argued that the creation of money should be completely privatized, and that market forces would prevent the over-issue of private notes, the fraudulent issue of notes, and any indeterminacy or volatility of equilibrium that might arise as a result of private note issue.[1] Friedman (1960), on the other hand, asserted that allowing private individuals to issue currency substitutes was a formula for generating indeterminacy of equilibria and "excessive" economic volatility. He argued for legal restrictions that strictly segregate "money" from "credit" markets, so that agents who borrow and lend should not issue circulating liabilities.

Between these views lies the real bills doctrine. Proponents of that doctrine took the view that the private issue of default-free circulating liabilities poses no clear threat to economic well-being. In particular, such issue does not threaten the determinacy of equilibrium, does not create additional sources of volatility, and does not put upward pressure on the price level. But even so, many ardent advocates of the real bills doctrine—including Adam Smith (1776)—did propose a variety of legal restrictions, including large minimum denomination restrictions, on private note issue.

Somewhat surprisingly, there are few modern theoretical treatments of the coexistence of public and private circulating liabilities. While there is a substantial literature on private monies, little of this literature considers situations where the

[1] Hayek was also concerned, of course, about government incentives to resort to inflation.