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Introduction to the symposium issue on money and liquidity

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Abstract

This Symposium on Money and Liquidity follows a conference held in Santa Barbara in August 2014, under the sponsorship of the Laboratory for Aggregate Economics and Finance at UCSB. The conference was a celebration of the twenty-fifth anniversary of the publication of Kiyotaki and Wright's *On Money as a Medium of Exchange*. This Symposium contains a selection of the papers presented at the conference and a selection of regular submissions that fit the theme. All papers were peer-reviewed according to the usual *JET* procedures.

JEL classification: E4; E5

Keywords: Money; Liquidity

> "Money is a means of exchange [used] according to convention or else I do not understand it."
>
> [Aristotle, translated by Schumpeter (1954), *History of Economic Analysis*.]

It is a venerable idea that the salient role of money is to ameliorate trading frictions. This view is shared by the typical economic theorist and the man on the street, although neither may be able to articulate precisely what it means. There is a wealth of discussion in the history of thought, with prominent examples including, among others, Adam Smith, William Jevons, Carl Menger, Knut Wicksell and John Hicks, who provide accounts of the double coincidence problem, the way money increases efficiency by encouraging specialization, the properties a medium of exchange tends to or ought to have (storability, recognizability etc.), and the suggestion that monetary

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economists need to "look frictions in the face." As regards "the old conundrum of how fiat money can survive as an institution," as Hahn (1973) puts it, "At a common-sense level almost everyone has an answer to this, and old-fashioned textbooks used to embroider on some of the banalities at great length. But common sense is, of course, no substitute for thought and certainly not for theory. In particular, most of the models of an economy which we have, and I am thinking here of many besides those of Arrow and Debreu, have no formal account for the exchange process."

Many people worked hard over the years trying to rigorously integrate monetary considerations into economic theory with, if we may venture an opinion, limited success. Furthermore, it is not only currency that is difficult to incorporate in general equilibrium; the same can be said for any institution whose raison d'être is the facilitation of exchange, including banking, retailers and other middlemen, debit or credit cards, secured lending arrangements, etc. Relatedly, classical economics is close to silent on phenomena like the expected time to execute a trade, bid-ask spreads, wage and price dispersion, etc. that would seem to be related to frictions in the transactions process.

Samuelson (1958) is a model with overlapping generations that allows valued fiat currency.[1] Early criticism of using this in monetary economics asserts that it captures the role of money as store of value, not a medium of exchange (e.g., Tobin, 1980). Whatever the merit of this assertion, the model has clear limitations, and is again silent on phenomena like time to trade, bid-ask spreads or price dispersion. Some work resorts to taking short cuts (i.e., giving up on the fundamental problem) by assuming money enters utility or production functions, like goods or inputs. Other work imposes the restriction that agents cannot trade A for B, but must first sell A then buy B with cash. While this may be realistic, it is a failure for monetary economics to have this as an assumption rather than a result. It is also unnatural to build monetary theory on a foundation where money hinders rather than helps economic activity. Moreover, if one agent has A and wants B, while another has B and wants A, who are we to dictate that they cannot trade? Now, one could tell stories around these shortcuts – e.g., some agents might not be able to meet directly – but why not put that explicitly in the model? And once again, these models, which are frictionless except for their cash-in-advance constraints, are silent on the time to trade, price dispersion, etc.

For more on methods, see the recent survey by Lagos et al., forthcoming and references therein. Our intent here is to provide some background for the collection of papers to follow, which were presented at a 2014 conference on monetary economics, broadly defined, at the Laboratory for Aggregate Economics and Finance at UC – Santa Barbara. These papers all in some way connect to Kiyotaki and Wright (1989), whose 25th anniversary was the theme of the conference.[2] While the Kiyotaki–Wright environment is crude, it is relevant for the issues at hand because it focuses attention exactly on describing the exchange process, i.e., who trades with whom and how. The methods in that paper, and perhaps even more in the sequels Kiyotaki and Wright (1991, 1993), are related to equilibrium search models including Diamond (1982), Rubinstein and Wolinsky (1987), Mortensen and Pissarides (1994), and Burdett and Mortensen (1998). These all use random matching, but the substantive issues can be, and many have been, revisited using directed search. In any case, the following is now clear: what matters is not really how they meet; the key idea in these models is that *agents trade with each other*, not only against budget lines.

[1] See Lucas (1972) and Wallace (1980) for important applications.

[2] The above-mentioned survey contains an updated and simplified presentation of Kiyotaki and Wright's original model, based on improvements in technique since 1989.