Financial History Review 5 (1998), pp. 27–47. Printed in the United Kingdom 

# Bills of exchange as money: sources of monetary supply during the industrialisation of Catalonia, 1844–74[1]

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The problem posed by the availability of means of payment has been of a central interest to historians analysing the process of industrialisation. For instance, T. S. Ashton found that bills of exchange constituted an important medium of exchange among industrial firms in Lancashire during the period 1790–1830.[2] A possible explanation for this is the need for large volumes of exchange media during periods of exceptional economic growth. In the Lancastrian case, the demand for money, arising from substantial numbers of commercial transactions, appears to have exceeded the available supply of currency. A similar development in Catalonia during the period 1844–74 will be considered in the body of this paper.

New developments in monetary theory provide a microeconomic basis for understanding these historical episodes. In particular, the intention here is to analyse the mechanisms that allow the emergence of different media of exchange during periods of currency shortage, such as that experienced in Catalonia over the mid-nineteenth century. Theoretical search models of money explain how both market forces create their own mechanisms to facilitate exchange, and agents adopt conventions about the use of different means of exchange. The main implication arising from these kinds of model is that the basic characteristic of any good used as a medium of exchange is acceptability to the agents in the economy. Other intrinsic

[1] Different drafts of this paper were presented at the Quantitative Economic History Conference (Cambridge, England, Sep. 1994), the Economic History Seminar, Universitat de Barcelona and the Economic and Business History Couference (Boulder, Colo., Apr. 1995). We wish to thank all participants, and an anonymous referee, for helpful comments; they, of course, have no responsibility for any remaining errors.

[2] T. S. Ashton, 'The bill of exchange and private banks in Lancashire, 1790–1830', *Economic History Review*, 15 (1945); and reprinted in T. S. Ashton and R. S. Sayers (eds), *Papers in English Monetary History* (Oxford, 1953; reprinted 1954, 1967).

characteristics of money, such as durability, homogeneity, etc., might be desirable but are unnecessary for a good to fulfil the role of medium of exchange.

The prime aim of this paper is to study the factors that made bills of exchange acceptable as means of payment when they were alongside other, more 'natural', exchange media, especially legal currencies. The data employed are drawn from the records of three different textile firms. Their entire accounts are available and indicate all sales, and the media of exchange used for their payment, during two years, 1859 and 1860. As these data have been drawn from primary sources, they can be considered to be of exceptional accuracy. Moreover, the three firms were very different, in terms of technology employed, location and size.

The present interest lies in analysing the determinants of the acceptability of different types of bills as money and to consider their varying characteristics. It will be argued that the acceptability of a specific asset may depend on variables reflecting the nature of the particular transaction giving rise to the debt and its commercial counterpart. A debatable point requiring clarification is: to what extent can bills of exchange be considered as money? On the one hand, it will be maintained that bills were taken as the means of payment for numerous dealings among firms but, on the other hand, it is clear that they were not accepted in all and every transaction. The obvious compromise reached is to consider bills of exchange, and other comparable documents, as media of exchange having restricted circulation within commercial networks.

In short, the main premise is that bills of exchange constituted money if agents wished to take them as such. The only requirement for an asset to be used as money would be its acceptability arising from agents so concurring in the market. Furthermore, it can be argued that monetary supply does not solely comprise legal status money. In particular contexts, individual agents' actions in the market will determine the amount and type of money. For this reason alone, the role of the supply of legal money should be given less importance than previously. For instance, while there was a great shortage of legal status currency in Catalonia during the period studied, this proved not to be an insurmountable obstacle in the way of marked economic growth, which contradicts other traditional explanations of the relationship between monetary supply and economic growth. Our analysis provides a possible framework explaining the possibility of economic growth despite restrictions in the supply of legal money.

Section I offers a brief, intuitive description of the theoretical arguments concerned with the nature of money as medium of exchange and which are germane to this investigation. The monetary and financial system in Catalonia during the mid-nineteenth century, the period of investigation, is outlined in section II. The uses of bills of exchange, and other documents, are illustrated and discussed in section III. In section IV, the database employed is described, following which an econometric test of our hypothesis is undertaken. The implications and possible extensions of our analysis are taken up briefly in the concluding section.



## I

One of the recurrent questions in the economic literature about money is: what circumstances determine which objects will come to be used as generally accepted media of exchange? Although this is an interesting issue from a purely theoretical point of view, it has not aroused much attention amongst applied economists. This may be explained by most late twentieth-century economies relying on the generalised use of fiat money, issued with the legal backing of the political authorities of each country. However, this has not always been the case. As will be detailed below, economic historians have considered episodes in the past when different objects were used as media of exchange.[3] Most of these occurrences were a result of the unconcerted market behaviour of many individual agents, being another outcome of their commercial relationships. Consequently, it is interesting to ask: what objects would come to be used as money, what determines this particular choice and what are the possible consequences of this at a more aggregated level? For instance, to develop further the third of these questions, how can this affect the definition of money supply and its relationship with economic development?

Surely the key, determining factor of the circulation of any type of medium of exchange is its acceptability. An object is more likely to be established as money if it is so regarded by many individuals within the economy. In this respect, one can say that acceptability has a self-reinforcing nature. It is not an intrinsic property of goods being used as medium of exchange but, rather, of the social conventions governing particular patterns of exchange between economic agents. This intuitive conclusion will hold for any object employed as medium of exchange. It will be the case whether the good is either an intrinsically worthless object – fiat money – or an object valued for consumption, or production, by some agents that, nevertheless, is accepted by further agents only for its exchange value and to be traded for other goods (commodity money).

These are not new notions in monetary theory since they were established by some of the first economists to explore the question of money. Thus Menger[4] emphasised the concept of saleability (taken here as being synonymous with related notions, such as acceptability or marketability) of goods used as medium of exchange. The question arises: does this mean that any object could appear as money as long as there was some sort of social agreement about its acceptability as medium of exchange?

The previous discussion seems to overlook other aspects of money that have also received considerable attention from economists. In answering questions about the circumstances when a particular object may come to be used as a medium of

[3] An illustrative example of this is the literature concerned with the free-banking experience. See particularly: L. H. White, *Free Banking in Britain: Theory, Experience and Debate, 1800–1845* (Cambridge, 1984); idem (ed.), *Free Banking* (Aldershot, 1993); and K. Dowd (ed.), *The Experience of Free Banking* (London, 1992).

[4] K. Menger, 'On the origin of money', *Economic Journal*, 2 (1892).