4 Conclusion

Our analysis in chapters 2 and 3 shows that it is possible to have a theory of money which puts its representativeness at the centre while at the same time allowing for the existence of equilibria where money is valued and allowing for the influence of monetary variables on real allocations. We wish to conclude by discussing two open methodological issues:

**Monetary vs. Real contracts** In chapter 2 we assumed that agents did not accept those non-monetary goods in exchange which they did not plan to consume themselves. In chapter 3 we assumed that the prior commitments were in nominal rather than in real terms. These assumptions justified by the evidence of the extreme rarity of the direct exchange of goods against goods and the relatively small proportion of real intertemporal contracts compared to nominal intertemporal contracts. But this still leaves open the question of why this is so.

We could have relaxed both assumptions and allowed monetary and real exchange as well as monetary and real commitments to coexist. But the question that then arises whether it is possible to have economies with equally good welfare properties that do not employ
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intrinsically valueless money at all and are organised on the basis of commodity money and real assets. Or to put it somewhat differently, if agents are free to choose whether they will write their contracts and menus in either nominal or real terms, why will they ever choose nominal contracts at all?

One class of models that has some bearing on this question is those of the degree of indexation where the choice is between nominal contracts and contracts denominated in terms of fixed, small set of price indices. In these models there are equilibria where the nominal contract is chosen over indexed contracts because the basket of goods in the index is not well-correlated with the agent’s consumption basket. However this result does not help us answer the problem of choice between nominal contracts and arbitrarily detailed real contracts and the overwhelming predominance of contracts in the real world.

The Hahn Problem In both our models, alongside equilibria where money is valued there exist equilibria where money is valueless. This has been known as the ‘Hahn Problem’ in monetary economics following Frank Hahn’s demonstration (Hahn, 1965) of this property in Patinkin’s monetary model. Hahn himself has argued that the Hahn Problem is evidence of the inadequacy of the models in which it can be shown to occur. However, we believe that an alternative interpretation is possible. In our understanding the Hahn Problem only shows that the model under consideration is truly a model of representative money.
4 Conclusion

If money has no use in production or consumption, its value can only arise from a belief that it will have a value in the future. A situation where no one holds such a belief and hence money is valueless is as self-consistent as a situation where everyone holds such beliefs and money has value.

While this may make it seem that the value of money is left hanging by its bootstraps, this situation is no different from how many other social institutions other than money functions. A direct analogy can be made with language where meaning attaches to words arbitrarily and without any external fiat, yet the links between words and meanings is sustained through mutual reinforcement between beliefs and actions of language users. To stretch the analogy somewhat dangerously, the prior nominal contracts in our model of chapter 3 are like dictionaries, mapping the beliefs of one period to the actions of the next.