Dynamic Monetary Search Model with Productive Capital and Non-Superneutrality

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Abstract

In our paper, we construct a monetary model with non-superneutrality of money based on Lagos and Wright (2005). In Aruoba and Wright (2003, 2011) incorporate physical capital stock into Lagos and Wright (2005), money becomes superneutral on capital, that is, the growth rate of money has no effects on accumulation of the capital stock. In Aruoba and Wright (2003, 2011), money is introduced only into consumption process (B to C trade), namely money has no effects on production process directly. This feature is one factor that causes superneutrality of money. We introduce fiat money into production process (B to B trade). In our model, there exist two markets, namely an intermediate goods market (IM) and a final good market (FM). During each period, all agents first enter IM with anonymous bilateral matching and trade the intermediate goods in exchange for fiat money, and then agents enter FM. In FM, agents produce and consume the final good. The final good is produced by using the physical capital stock and the intermediate goods which are traded in exchange for money. Based on our model, we numerically analyze dynamic features of our model and change on welfare by a lump-sum transfer.

Keywords : Money, Capital, Non-Superneutrality, Search Theory, Business Cycle.
JEL classification : E13, E32, E40, E41.

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