The Coming Battle of Digital Currencies

A Discussion

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Environment

- Model of dynamic competition among:

    1. Two national fiat currencies: strong and weak.

    2. A "representative" cryptocurrency.

    3. CBDCs: better versions of the national fiat currencies.

- OLG model where money is used for trading among generations in the tradition of Kareken and Wallace.

- Governments levy taxes and maximize the discounted value of seignorage.

- Solution concept: Markov equilibria.

1. Cryptocurrencies harm the strong currency but may benefit the weaker currency.

2. The weak CBDC is a greater threat to cryptocurrencies.

3. Pecking order of CBDC issuance: China $\succ$ U.S $\succ$ El Salvador.

4. Financial innovation is higher in the country with a weaker currency.

5. Stablecoins may favor the strong currency.

Some comments

Hayek, F (1999), The denationalization of money, p. 162

"I have always found it useful to explain to students that it has been rather a misfortune that we describe money by a noun, and that it would be more helpful for the explanation of monetary phenomena if 'money' were an adjective describing a property which different things could possess to varying *degrees*.

- This is a really nice paper built around a central point: the importance of competitions among monies.

- The results are intuitive.

- The authors are always nuanced in their statements, highlighting the strengths of the model and venues for possible improvement.

CBDC

- A CBDC is modeled as a "better" fiat currency: the convenience yield of the fiat currency increases.

- However, introducing a CBDC is costly and its arrival random.

- While these two hypotheses are quite sensible, they also present a "best-case" scenario of what a CBDC is:

    1. No privacy concerns.

    2. No financial stability concerns.

    3. No political-economy considerations.

    4. No commitment problems.

- (With my "hat" as an econometrician) All of those factors are going to correlate with being a weak currency to begin with.

- Could the paper explore some of these aspects?

Applied theory vs. quantitative theory

- The model in the paper is deftly crafted to allow for much analysis. It is, thus, in the tradition of applied theory.

- However, since the model needs to be sufficiently rich to incorporate all the mechanisms the authors want to explore, one is forced to switch to numerical analysis.

- The parameter values and quantitative results are illustrative of the power of the model.

- The paper would be even better if the authors would consider a more thorough calibration approach.

- I understand some parameter values will be hard to pin down, but the marginal utility of strengthening the quantitative theory part of the paper is very high.

OLG vs. other essentials models of money

- The paper uses an OLG model à la He and Krishnamurthy (2013).

- OLG models of money are a very simple set up.

- But it would be nice to have a sense of how robust the main results of the paper are to alternative environments (search, turnpike, ...).