

**Discussion of H. Uhlig's and T. Xie's
'Parallel Digital Currencies and Sticky Prices'**

Martín Uribe

Columbia University and NBER

July 2021

Overall Assessment

Almost every day, we see the price of some digital currency display large variations.

Do these price swings have real consequences (employment, output, inflation, etc.)?

Uhlig and Xie envision a world in which the answer is yes.

This is an important insight.

The Uhlig-Xie World

(1) Currencies are perfect substitutes in providing transaction services.

(2) The economy has multiple units of account: different (groups of) goods are priced in different currencies.

(3) Prices are sticky.

- By (1) exchange rates are random walks (Kareken and Wallace, 1981). The innovations of these random walks represent non-fundamental uncertainty.
- (2) then implies that the economy is subject to N sectoral (i.i.d.) shocks, where N is the number of digital currencies used as unit of account.
- Finally, (3) implies that these shocks have consequences for aggregate output, inflation, and sectoral activity.

How Likely is the Uhlig-Xie Scenario? (I)

Emergence of a Dominant Currency: Just like the dollar is the dominant unit of account in international transactions, the dollar could also (most likely will) emerge as the dominant currency in a future United States with multiple parallel currencies. In this case, nonfundamental movements in exchange rates would have no real consequences.

More generally, within each country, the official currency could emerge as the dominant currency, neutralizing nonfundamental movements in DC exchange rates

Why should there be a tendency for economies to have a single unit of account? Because living in a world in which relative prices are artificially (nonfundamentally) volatile is hard for shoppers and sellers. It is in everybody's interest to reduce this volatility by coordinating on a single unit of account.

How Likely is the Uhlig-Xie Scenario? (II)

Nonconvergence to Perfect Currency Substitution: The Kareken-Wallace result is a knife-edge one. A minimum degree of non substitutability can make the exchange-rate indeterminacy result go away

Without exchange rate indeterminacy, exchange-rate shocks cease to be a source of aggregate instability.

The Uhlig-Xie World with Imperfect Currency Substitution

I suggest that the case of imperfect currency substitution is an interesting one to study:

With perfect currency substitution, the effects of aggregate shocks (technology, preference, and monetary shocks) don't differ from those implied by the NK model with a single currency.

However, with imperfect currency substitution, aggregate shocks, to the extent that they move exchange rates, can affect the economy differently than in the single-currency NK model.

Conclusion

This is an excellent paper.

It conveys a potentially disturbing result: nonfundamental noise about DCs, e.g., Elon Musk's tweets, can represent much more than a good or a bad day for currency speculators. They can have consequences for jobs, prices, etc.

The exposition is clear and easy to follow for anybody familiar with the simplest NK framework.

I recommend reading it.