Discussion of “Central Bank Digital Currency in an open Economy” by Ferrari, Mehl and Stracca

Peter Bofinger and Thomas Haas
Julius-Maximilians-Universität Würzburg
Main points of the paper

- The key intuition is that the existence of a CBDC creates a new arbitrage condition that links together the interest rate differential, the exchange rate and the remuneration of the CBDC.

- The presence of a CBDC amplifies the international spillovers of standard macroeconomic shocks to a significant extent, thereby increasing international linkages. The magnitude of these effects depends crucially on CBDC design.

- CBDC design options discussed in the paper: fixed quantity – flexible interest rate, flexible quantity - fixed interest rate, flexible quantity – Taylor rule
Definition of CBDC is relevant

<table>
<thead>
<tr>
<th>Token-based CBDCs</th>
<th>Retail CBDCs</th>
<th>Wholesale CBDCs (Large companies and payment service providers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-to-peer payments</td>
<td>Digital wallets “e-money”</td>
<td>–</td>
</tr>
<tr>
<td><strong>Account-based CBDCs</strong></td>
<td><strong>Means of payment</strong></td>
<td><strong>All-purpose CBDCs</strong></td>
</tr>
<tr>
<td><strong>Standard of value</strong></td>
<td><strong>Store of value</strong></td>
<td><strong>Store-of-value CBDCs (“safe assets”)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>All-purpose CBDCs</strong></td>
<td><strong>Synthetic CBDCs: (Narrow banks/ Payment service providers)</strong></td>
</tr>
</tbody>
</table>

Synthetic CBDCs: (Narrow banks/ Payment service providers)
The ECB’s plans for the digital euro

- Digital euro as **payment CBDC** held in a wallet with an **upper limit** for per person holdings of 3,000€

- **No store-of-value CBDC** (“The digital euro should be an attractive means of payment, but should be designed so as to avoid its use as a form of investment and the associated risk of large shifts from private money (for example bank deposits) to digital euro“ (ECB 2020, p. 18).)

- **International usage might be limited** (“The design of the digital euro should include specific conditions for access and use by non-euro area residents, to ensure that it does not contribute to excessively volatile capital flows or exchange rates. Such conditions could take the form, for instance, of limits on or adequate remuneration policies for the holdings of digital euro of non-euro area residents.“ (ECB 2020, p. 22).)

- BIS survey among central banks shows, “[central banks] have a cautious approach to allowing use of a CBDC beyond their own jurisdiction“ (Auer et al. 2021, p.1).

- **International implications of payment CBDC are thus very limited**

- For the effects discussed in the paper, i.e. relevance for exchange rate and bond yields, extensive store-of-value use of CBDC would be required
Foreign currency holdings are nothing new

- CBDC is not a game changer
- Bank deposits in foreign currency can be held with domestic and foreign banks
- Bank deposits are safe as they are protected by deposit insurance
- Shifts in exchange rate expectations lead to shifts in holdings of deposits (“currency substitution”), there is no effect on bonds
- Relevant interest rates not the risk-free bond rate but the interest rate on bank deposits (foreign banks – foreign currency, foreign banks – domestic currency, domestic banks – domestic currency, domestic CBDC)
- The main assumption of the paper that foreign bond holdings decrease while domestic CBDC holdings by foreigners increase combines two different effects
- Research on currency substitution finds that currency substitution is driven by deposit shifts (Bannister et al., 2018) and that macroeconomic stability (inflation rate, changes in the exchange rate) is weak in explaining household and firm behaviour (Corrales and Imam, 2019)
Summary

- Central banks do not plan CBDC with store of value features and international usage
- Currency substitution is already possible by holding bank deposits in foreign currency
- Relevant research question is what the specific effects of CBDC on currency substitution are, given that instruments like bank deposits with similar utility features as CBDC already exist