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INTERVIEW

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Research: Are Crypto-currencies A Miracle Cure For Fighting Inflation?

Interview with Maxi Guennewig, EPoS Economic Research Center

Bonn, Mannheim, 29.05.2024 – **Central banks aim to keep a check on the value and inflation of traditional public money. In contrast, more recent private money initiatives – the "crypto-currencies" – promise more price stability. Economists wonder whether the new digital currencies, which are operated by the blockchain, could offer an alternative to public money. Maxi Guennewig has analyzed the pros and cons of crypto-currencies. The results are published by the EPoS Economic Research Center at the Universities of Bonn and Mannheim in the discussion paper "Blockchain Congestion Facilitates Currency Competition".**

Mr. Guennewig, are crypto-currencies really more stable in price than traditional public money?

Maxi Guennewig: Crypto-currencies indeed promise lower inflation on average, given the low rate of crypto-currency issuance. The economic mechanism behind this: blockchain operators have incentives to issue few coins in order to create a currency with low inflation. This attracts many users, and boosts the value of the newly issued coins – keeping a check on inflation in the long run. So on average, crypto-currencies should indeed have lower money growth rates and inflation outcomes than public money in the past.

However, as we have seen in recent years, crypto-currency prices may fluctuate despite a low issuance rate. This fluctuation would be undesirable if we were to use crypto-currencies to pay for everyday goods, such as rent or groceries.

Your paper also highlights considerable constraints due to the nature of blockchains, on which crypto-currencies are run. What does this mean for consumers?

Maxi Guennewig: The fact that crypto-currencies are run on blockchains implies a capacity constraint: the throughput of transactions is limited when many people want to use it at the same time. This is a downside, as it constrains the degree to which consumers can use blockchains for everyday payments. In a world where only crypto-currencies were to circulate, users would probably not be able to make all the transactions they want. Seen from a different angle, the limited transaction throughput is also an upside: blockchain operators have incentives to issue few coins which leads to a low inflation rate in the medium term. This attracts many users, and ensures that the capacity of blockchains is fully utilized.

What is the relation between coin issuance, inflation and safety?

Maxi Guennewig: The blockchain is of course a decentralized system, meaning that its safety depends on the actions of many participants in the network. Essentially, these network participants need to be incentivized to keep the blockchain secure from attacks. In the case of “Bitcoin”, this means that many so-called “miners” need to receive a sufficient number of Bitcoins so that they supply a lot of computing power. This disincentivizes attackers from amassing large amounts of computing power themselves in an attempt to take over the network. In the case of “Ethereum”, so-called “validators” need to lock up coins in order to keep the system secure. These validators only do so when they receive a sufficient amount of Ethereum-native coins in return. Setting the right incentives thus requires issuing new coins, which leads to some level of inflation. Alternatively, users must pay blockchain transaction fees.

Given the pros and cons of crypto-currencies, could the role of central banks be challenged in light of competition from private money issuers?

Maxi Guennewig: My results suggest that the role of central banks that do their homework should not be challenged. If central banks manage to keep inflation in check, then public, centralized money can compete with crypto-currencies. At the same time, regulators should also do their homework and limit the market power of private payment providers, such as Visa or Mastercard. Under these conditions, public money should prevail.

INTERVIEW

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The Collaborative Research Center (CRC) Transregio 224 EPoS
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