

Cryptocurrencies and the Velocity of Money

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Research Questions

We **operationalize a novel measure** for the velocity of money **based on effectively circulation coins**.

We test how well the simple **proxy-variables used so far** really are.

[Fisher, Irving: The Equation of Exchange. 1911.]

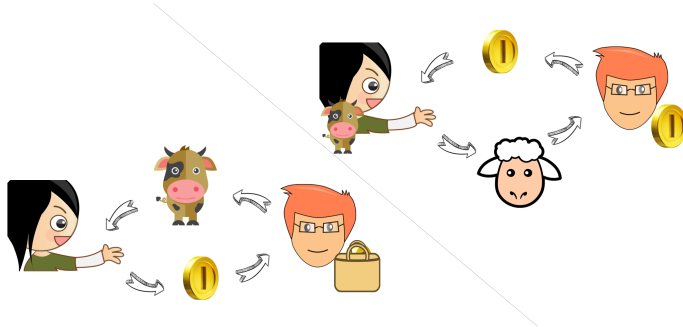
“Velocity” of money?

How are transactions executed using money?



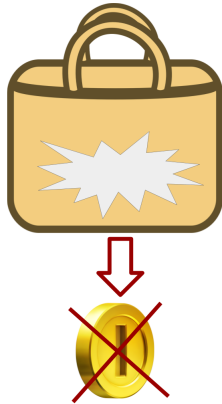
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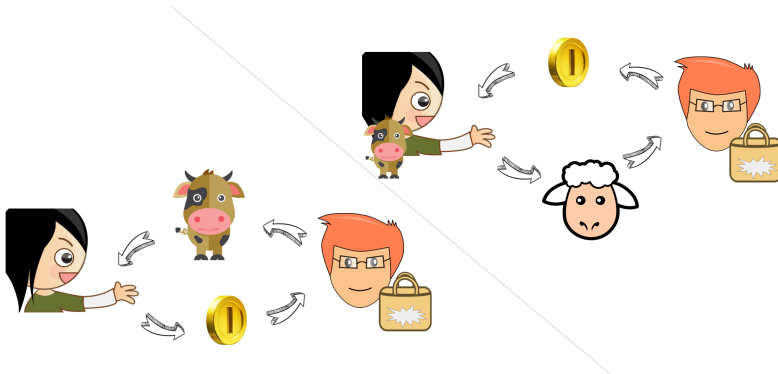
“Velocity” of money?

Can we still do the same deals with just one coin?



“Velocity” of money?

Yes! We just spin the leftover coin for a second time within this period!



How does this work?

“Velocity” of money

Velocity is the “average number of turnovers during a period of time”.

“Velocity” a bit more formal:

Velocity can be measured for UTXO-based cryptocurrencies like Bitcoin.

[Fisher, Irving: The Equation of Exchange. 1911.]

Well now—which measures can we build on?

1. Just using **raw on-chain transaction volume** and **total coin supply**
—Literature: Bolt and Van Oord (2016), Ciaian et al. (2018)
2. Adjusting the on-chain transaction volume for **change transactions**
—Literature: Athey et al. (2016), Kalodner et al. (2017)