

Voucher Twins and Clearing

Two persons **A** and **B** agree that a pair of shoes and 5€ will change hands. **A** fulfils his promise and gives **B** the pair of shoes. He agrees that **B** will fulfil his promise on a later day. As a reminder, they tear out a green and a red section from a pad on which they write the agreed price. **A** keeps the green one and **B** takes the red one. These slips are the reminder to present them together with other slips to the community on the day of the final settlement. **A** enters the sale in his books and fulfils the tax obligation; **B** as a private person may not be keeping books.

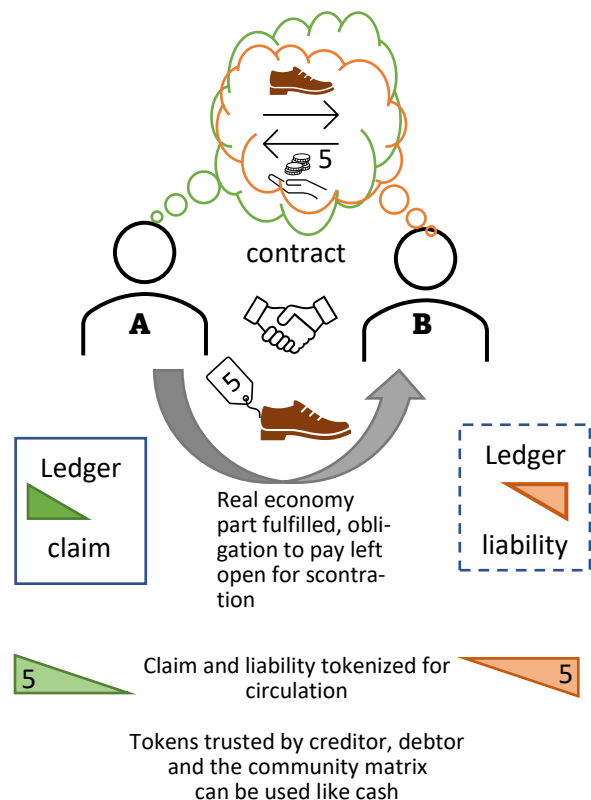
The fact that **A** issued the pair of shoes on credit and that **B** promised to settle the account on the day of the final settlement, and that these two facts were each recorded on a piece of paper, means that these slips can be used in circulation as means of payment. For example, **A** can give his claim for 5€ to someone else and receive goods for 5€ in return. **B** can mow someone's lawn and instead of getting €5 from him, give him the red slip to fulfil the liability in his place in the final settlement.

The notes are fungible bearer securities. They are always created as twins but can then go separate ways in circulation. This is how it is achieved,

- that **B** gets his shoes and at the same time the "money" for this is created in the required amount.
- and that the slips generated a cash-like medium of exchange for further use.

If everyone in a community does this, red and green slips accumulate for everyone, whether they were created as a twin pair or used individually for exchange. At the end of the accounting period, everyone adds up the numbers on their slips to get a red or a green balance.

By adding up slips of paper, as from different sales transactions or services, the information is lost as to who the original claim or liability was against. Instead, the pile of green slips shows which claim an actor has on all the others and the pile of red slips contains the claims that the others have on him. The balance is therefore also a claim on the others or a liability of the others towards him.



Now it needs the community to collect the red balances in the currency in force and distribute the result to those who have green balances. The trivial mathematics of twins with equal numbers ensures that the community's cash register or account ends up with the same balance as it started with.

If this is not the case, a twin is missing. The community gives a guarantee that at the final settlement everyone with a green balance will receive the corresponding legal tender as compensation. Thus, all individual purchase contracts of the settlement period are balanced. The slips lose their validity and can be destroyed. The missing twin can be found by sorting out all matching pairs. What then remains needs to be clarified.

In order to support this possibly necessary investigation, the slips can, for example, be provided with the same barcode, which also refers to the block from which they were taken, whereupon the recipient of the block can be included in the clarification of the difference.

It is important for everyone in the community that the trust they put in by giving someone a payment term is backed by the community's guarantee that

any remaining green balances will be cleared in legal tender. The community guarantee may be that the difference is borne equally by all until it is cleared. Then the amount can be credited again.

The formation of a reserve would also be possible. However, this would give the community a bank character, which might not be desirable.

No one pays more than they would have paid if they had paid cash immediately. No one pays less than they owe. Everyone gets by with less legal tender and fewer payments.

If someone keeps his books, he can determine his balances vis-à-vis the respective contractual partners, he can also make a prediction about his cash/account balance. However, he cannot set off his claim against **F** against a liability against **M** in his books. For that he would have to ask them into his office to agree that with each other. This is the state of trade fairs in the Middle Ages, where a third party was added to reduce the number of coins to be moved.

The clearing house in London started with bilateral compensation and payment in coins and evolved into the joint account at the Bank of England. Today, there is no need for a house, there is no need for the players to come together. No one should have trouble understanding and acknowledging the underlying trivial mathematics.

The matrix shows everyone how they stand in relation to the community and what needs to be done to balance it. Besides balancing by legal tender, a roll-over into the next accounting period can be used, e.g., if the balancing volume is negligible.

Central banks have the now insoluble problem of adjusting the money supply to match the quantity of goods, in the hope of then having inflation under control. What has not been solved is the right distribution. The quantity can be right. If the distribution is not right, the distribution of goods can falter.

In the paper economy, the question of quantity and the question of distribution are solved at the same time by creating a means to distribute goods

shall now use M' to express the total deposits subject to transfer by check; and V' to express the average velocity of circulation. The total value of purchases in a year is therefore no longer to be measured by MV , but by $MV + M'V'$. The equation of exchange, therefore, becomes:—

$$MV + M'V' = \Sigma pQ = PT.^1$$

Let us again represent the equation of exchange by means of a mechanical picture. In Figure 4, trade,

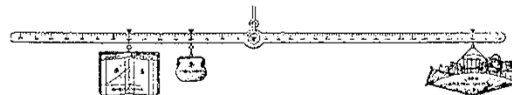


FIG. 4.

as before, is represented on the right by the weight of a miscellaneous assortment of goods; and their average

where they are and, in the amount, they are needed.

A "speed" of money does not have to be assumed. It is replaced by the multiple use of the cuts in the barter system.

Fulfilment of Fisher's equation¹ cannot be a goal. The goal of a community could be to operate in the settlement periods in such a way that the benefits balance out against each other without the need for payments in currency. In this sense, the fulfilment of the wish for a money-free society is within the realm of possibility.

¹ Irving Fisher (1911): The Purchasing Power of Money, page 48