

Plus ca change - It took over 1,000 years to understand how sound money works - and some governments ...

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Plus ca change - It took over 1,000 years to understand how sound money works - and some governments still get it wrong.

Economics focus

The lessons of sound money from 1,000 years' experience

THIS month has seen progress in one bold monetary experiment, the issuance of euro notes and coins, and the failure of another, Argentina's currency board. In the history of money, this is all par for the course. Currencies, and systems for managing them, have come and gone with striking frequency ever since Croesus, king of Lydia, first minted coins in the sixth century BC.

Might the euro also fail? A new book, "The Big Problem of Small Change"*, underscores how little has been learnt from more than a millennium of monetary experiment. This fascinating new history of money shows that the key ingredients of a sound currency were identified in Europe hundreds of years ago. The mystery is why, even today, so many governments fail to put this knowledge to work.

The authors, Thomas **Sargent** of the Hoover Institution and Francois **Velde** of the Federal Reserve Bank of Chicago, argue that today's monetary orthodoxy has its origins in an ancient puzzle. For several centuries after 1200, when Charlemagne's famous silver penny was supplemented throughout Europe with coins of other denominations, there were inexplicable shortages of small change, which curiously coincided with a fall in their value, apparently defying the laws of supply and demand. Why?

Most of the value of a coin derived from the amount of precious metal in it. The amount by which the value of a coin could vary had an upper and lower limit. One reflected the cost of turning, say, an ounce of silver into a coin (this included minting costs plus a government coinage tax known as seigniorage). The other was what could be bought if the coin were melted down and the metal it contained used as payment. The supply of each denomination depended on how much silver people took to the mint.

A shortage might occur because of an unexpected rise in national income or its distribution, causing ordinary people to increase their purchases of bread, beer and so on. Small coins, not big ones, were needed for these transactions, which would often be for far less than the denomination of a high-value coin. At the same time, the value of small coins relative to big coins would often fall.

The authors explain this using modern monetary theory - which, alas, is somewhat counter-intuitive. Broadly, instead of using simple supply and demand, it explains changes in the demand for one asset (a small silver coin, say) relative to another (a large coin) in terms of changes in the rate of return that the holder of the assets can expect from each. Depreciating smaller-denomination coins - which lowered the expected return from holding them - was the market's way to encourage holders of money to ease the shortage by getting rid of their small coins, the authors reckon. But this often made things worse,

because the depreciation took the value of small coins below the point at which it paid to melt them down.

For centuries governments responded to a shortage of small coins by debasing them, ie, reducing the amount of silver required to make a penny. This provided an incentive for people to turn silver into pennies, but it generated inflation.

Eventually an ingenious way was found out of the mess. Instead of each denomination containing precious metal, only one higher-denomination coin would do so. All other denominations would be tokens, made of a metal too cheap to be worth melting down, that could be exchanged for higher-denomination ones (or for a set amount of the precious metal) at a rate fixed and guaranteed by the government.

Following the invention of the Boulton steam press in 1787 - which raised the cost of forgery - a British token currency flourished, initially issued by private firms before being nationalised in 1816. By the late 19th century, most other leading countries had token currencies, mostly pegged to the value of gold. Hence the rise of the gold standard.

A question is left unanswered. If the problem of small change led economists to understand how to run a system of token money, did some of the greatest economists of the early 20th century learn the wrong lesson from the system's success? John Maynard Keynes and Irving Fisher, among others, opposed the gold standard as a waste of valuable resources. They argued for a currency based entirely on tokens, with no link to an underlying physical commodity. Governments, greedy to spend their gold reserves, warmed to this idea, particularly during the 1930s depression. When America belatedly and finally abandoned the gold standard in 1971, it was history.

Abandoning the link to gold meant that it was entirely up to governments to ensure that their token-based currencies kept their value. In the event, for most of the 20th century they failed. They presided over levels of inflation that were seldom seen when money was backed by precious metal, debasement notwithstanding. Does history teach that a token-based currency works only if it is anchored to some unambiguous real store of value that a government cannot inflate away? Ironically, this was the logic behind Argentina's currency board, anchored to the American dollar rather than to gold. In the end, Mr **Sargent** says, that failed in part because even anchored systems cannot co-exist with unsustainable government debts, as in Argentina; the temptation to reduce debts by tampering with the value of money is too great. Even economic insights developed over hundreds of years cannot work their magic without the requisite political will.

* "The Big Problem of Small Change", by Thomas **Sargent** and Francois **Velde**. Princeton University Press, 2002.

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