Negative interest rates or 100% reserves: alchemy vs chemistry
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The close connection of fractional reserve banking with alchemy was recently emphasized by Mervyn King, former head of the Bank of England, in the very title of his recent book, *The End of Alchemy: Money, Banking, and the Failure of the Global Economy*. He refers to the more thorough development of this connection by Swiss ecological economist H. C. Binswanger in his brilliant study, *Money and Magic*. Given this connection to alchemy, it is more than a coincidence that the earliest and most thorough critique of fractional reserve banking came not from an alchemist but from a real chemist, Nobel Laureate Frederick Soddy (See H. Daly, “The Economic Thought of Frederick Soddy”, *History of Political Economy*, 1980, 12:4). Soddy's advocacy of full reserve banking was later picked up by Irving Fisher, and by Frank Knight and others of the Chicago School. Mervyn King stops short of advocating full reserve banking, but clearly is unhappy with the fractional reserve system.

Most Central Banks, however, seem to favor the alchemy of fractional reserves as a key part of their hyper-Keynesianism: the quest to stimulate real growth by increasing monetary growth, first by low, then by zero, and now by negative interest rates. Why hasn’t it worked? Because real growth today is constrained by real resource shortages, while in the 1930s traditional Keynesianism’s assumption of unemployed resources was reasonable. There is still unemployed labor to be sure, but not unemployed natural resources, which have become the limiting factor in today's full world. As growth converts more of nature into economy we see that these newly appropriated natural resources were not unemployed at all, but were providing ecological services that often were more valuable than the extra production resulting from their enclosure into the economy. Aggregate growth has become uneconomic – a condition unrecognized by economists long fixated on growth as panacea – but which ironically is logically implied by their absurd new policy of a negative interest rate! (http://steadystate.org/the-negative-natural-interest-rate-and-uneconomic-growth/)

Borrowing at a negative interest rate makes it profitable to invest in projects with a slightly less negative rate of return. Investing in uneconomic projects promotes uneconomic growth. We already have uneconomic growth at the macro level thanks to the mis-measures built into our System of National Accounts (http://steadystate.org/wealth-illth-and-net-welfare/). With negative interest rates we will in addition induce uneconomic growth at the micro level, compounding the collective idiocy. Savers at some point will prefer cash to paying the banks a fee to keep their money, and that will lead the banks and their politicians to push for the elimination of cash in favor of electronic deposits that the banks can control, thereby strengthening the death grip of centralized finance on the real economy.

Better than a policy of hyper-Keynesian negative interest rates is the policy of 100% reserves on demand deposits, first advocated by British Nobel chemist and underground economist Frederick Soddy, and then by the leading American economists of the 1920s, Irving Fisher and Frank Knight, among others. It dropped out of discussion with the Great Depression and
the Keynesian growth cure, because it was correctly considered a constraint on growth. The traditional Keynesian growth cure worked in the empty world with unemployed natural resources as well as unemployed labor, but in today's full world growth has become uneconomic and needs to be constrained. So it is time to reconsider 100% reserves.

What are its advantages?

1. The private banking system could no longer live the alchemist's dream of creating fiat money out of nothing, pocketing the seigniorage, and lending the created money at interest. These enormous privileges would be transferred to the public treasury. Money would be a public utility – a medium of exchange, a unit of account, a store of value. The idea is to nationalize money, not banks. [http://steadystate.org/nationalize-money-not-banks/](http://steadystate.org/nationalize-money-not-banks/)

2. Every dollar borrowed would be a dollar saved, and unavailable to the saver for the life of the loan. This restores the classical discipline of balancing investing and saving, rather analogous to chemistry's law of conservation of matter-energy. Savers and Investors cannot both claim the same dollar at the same time. Banks are intermediaries, charging interest to borrowers and paying interest to savers. The interest rate exists as a price equating savings with investment, but not as a price paid to the banks for their unnecessary and expensive “service” of creating money as private interest-bearing debt. That the public utility of money should be the by-product of the private activity of lending and borrowing is no better than when it was the by-product of the private activity of gold mining.

3. In the absence of fractional reserves there would be no possibility of bank failure due to a run on the bank by depositors, and therefore no need for deposit insurance and its consequent moral hazard. The entire debt pyramid would no longer collapse with the failure of a few big banks, bringing down the basic system of payments with it. The bargaining power of the banking system to extort large bailouts by taxpayers would be lost.

4. No longer would the money supply expand during a boom and contract during a slump, reinforcing the cyclical tendency of the economy. And the reserve ratio could be raised gradually.

5. Money would be issued by the Treasury, and spent into existence for public goods and services. The amount of money issued would be limited by the amount of money that people are voluntarily willing to hold instead of exchanging it for real wealth. If the Treasury issues more than that amount, people will spend it on real goods, driving up the price level. That is the signal to the treasury to print less money and/or raise taxes. The Treasury's policy target is a constant price index, not the interest rate, which is left to market forces, and would thus never be negative.

The internal value of the currency is determined by maintaining a constant price index, and thus the dollar ceases to be a “rubber yardstick” of value. The external value of the currency would be determined by freely fluctuating exchange rates.
This is too big a policy issue to decide in 1000 words. But I hope at least to raise the suspicion in reasonable minds that a 100% reserve requirement makes far more sense than a policy of negative interest rates.

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