Reserved For The Future

Posted by Prof. Goose on July 20, 2006 - 12:32pm
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Tags: debt, external debt, interest rates, loans, seigniorage [list all tags]

[editor's note, by Prof. Goose] This is a guest post by Mike Hearn.

In previous installments of what is becoming a potted series on economics, Stuart looked at interest, and I talked about demurrage, a kind of money tax that is designed to encourage long term thinking.

Some observers, on seeing the idea of negative interest/a money tax, remark that such a currency would have a hard time competing for users if it were to exist in a free market of currencies as it would be less desirable to hold than a currency that became more valuable over time.

Others point out that it's unlikely such a radical change could be brought about short of revolution. In these uncertain times nothing should be discounted but it is probably more profitable to look at less radical alternatives.

There are various other proposals for economic reform. One which I quite like comes from the New Economics Foundation, whos reports are well worth reading if you're interested in environmental/sustainable economics. James Robertsons and Jospeh Hubers 100-page book, "Creating New Money: A Monetary Reform for the Information Age", proposes some changes to our economies that could prove handy in a post peak oil world.

> *When I was young, I thought that money was important. Now that I am old I know it is. -- Oscar Wilde*

Before we can understand this solution, we need to look at the problem.

The previous posts have dealt primarily with *interest*, the payment of which encourages conversion of assets into currency, and the charging of which encourages competition and growth. This is not always bad but for the case of renewable assets like forests, game reserves, farmland etc it can be problematic.

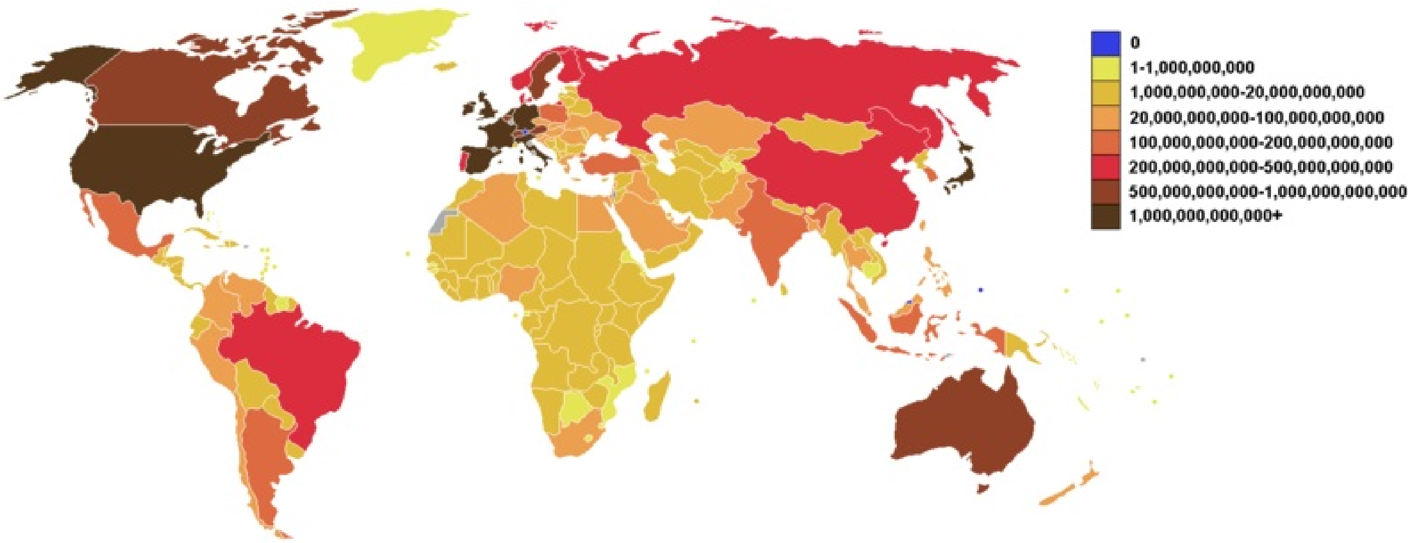
Does interest cause strife outside of clear-cutting a forest or two? Yes, it does. Last time I gave the parable of the Eleventh Round which boiled the situation down to its simplest form - when peoples money is backed by debt, paying off the interest on that debt can require either environmentally destructive expansion or for people turn on each other to get scarce currency.

The villagers ended up in this sad situation because of this part of the story:

> "One more thing," the stranger added. "In one year's time I will return and I want each of you to bring me back an extra round, an eleventh round. That eleventh round is a token of appreciation for the technological improvement I just made possible in your lives."

In practice of course we don't have to show some mysterious stranger our gratitude for the existence of money. In practice, we have to service interest charges on bank loans. It may appear that this only affects people who are actually in debt to a bank, but that's not correct because at heart

Money Is Debt



Map of countries by external debt in $US, from CIA factbook, accessed April 2006.

I called that out because it's vital to understanding our problem and where we go now. The bank notes in your pocket literally represent the debt of somebody else. If everybody in the world were to pay off all their debts, money would simply disappear with a giant sucking noise.

Loans and Profits

It works this way because of how money is created. Intuitively, when the money supply needs to be increased you would expect the government to run the printing presses and minting machines to produce lots of coins and notes, which it could then spend into circulation.

In practice, only about 3% of the money in circulation was created this way. The rest was simply magicked into existence via the fractional reserve system. This system is ridiculously convoluted and not something I want to go into here, suffice it to say that new money is created mostly by commercial banks in the form of interest-bearing bank loans. These loans are not simply re-distributing wealth, rather they are based on the assumption that not everybody will try and withdraw their deposits at once. Legally, banks can therefore lend out more money than they actually have on deposit and rely on statistics to make it all work - the exact amount they can lend is governed by the **reserve ratio**, normally around 10% but in some cases (such as with the Bank Of England) it's not public and varies between commercial banks.

The ability to simply create money can obviously be enormously profitable, and the profit created like this is called *seigniorage*, defined as "The profit that results from the difference in the cost of printing money and the face value of that money." In other words, if you printed $100 at a cost of $30 (running the presses) the seigniorage profit would have been $70. Because in the 21st century money is usually issued electronically - at zero cost - this results in pure profit for the issuing institution.

It is private commercial banks keeping the seigniorage money that most concerns Robertson and Huber, and they estimate that it causes about $115 billion/year to be cornered by the private banks in the USA (about Â£42 billion, or 12p on income tax in the UK). They suggest that as money is a public good, the benefits from issuing it should also be used for the public good and reallocated to the government, and they propose a mechanism for doing so in which the ancient fractional reserve system is replaced by a much simpler and more direct system.

But the injustice of the current money supply mechanism is not relevant to us here at The Oil Drum, except perhaps that a wise government could use the money to mitigate the effects of peak oil. We are more interested in questions like

- Does this change improve our long term thinking? ... and ...
- Does this change fix the need of our economy to constantly grow?

The latter question is especially relevant because in a post peak-oil scenario it is possible - even likely - that our economy will not be growing and actually will need to shrink. Unfortunately the money needed to pay the interest on the loans that summon money into existence requires the constant creation of yet more money, which combined with a shrinking economy will lead to significant levels of inflation - perhaps even trigger hyperinflation.

So? Does their proposal do these things? Yes ... I believe it does. Here's why.

Seigniorage reform

The basic idea is to end the system whereby money is backed by personal debt, and replace it with debt free money.

Ben Bernanke
US Federal Reserve

Currently, central banks try to control the money supply through a variety of indirect means. The ultimate lever is the interest rates charged on bank loans - as it gets higher less borrowing and therefore less money creation goes on. As it gets lower more money is created as the number of loans issued goes up.

If this sounds rather imprecise, well, you'd be right. It's widely agreed amongst economists that altering the interest rate will alter the rate of borrowing and therefore increase in the money supply. But how quickly does that take effect? And by how much? What if people don't respond rationally to higher interest rates? Answering these questions is still largely a guessing game.

Robertson and Huber propose a much simpler system, in which the central banks decide by how much the money supply should be changed according to monetary policy (the details can be found in his report and this is just a summary). If the money supply should grow (normal in a growing economy) then the new money is simply issued to the government in the form of a grant. Literally, it is summoned into existance through the will of the monetary policy committee. The government then spends this into circulation - either by using it as a form of revenue to fund public services, or simply distributing it evenly throughout the economy to avoid creating "inflation ripples". Meanwhile, the right of the commercial banks to issue debt-backed money is revoked and the supply of such money gradually phased out.

The more interesting thing is what happens if the central bank decides the money supply should become steady or shrink. Under the present system the only recourse would be to raise interest rates by a huge amount to try and compel the banks to slow borrowing - unfortunately as Stuart has demonstrated this could be rather unlucky for the poor forests (assuming a commensurate rise in interest rates for savers).

But after seigniorage reform, the money supply can be shrunk simply by either halting the flow of new money to the government (over a period of years to allow time for budgetary adjustments) and then by cancelling money raised from the economy via taxation. By using a more direct system, and by issuing money free of interest charges, there is no longer a constant need to grow the economy in order to pay back the interest on the currency. Because the people deciding how much to issue are independent of the government, the profit motive for over-issuing currency is eliminated. It becomes possible to shrink the money supply without triggering collapse.

The proposed system has many other benefits, and I've chosen to only look at economic stability in a steady-state or shrinking world. If you want to learn more I'd definitely suggest the report, it's quite easy to read even for non-economists.

The author of this post is not a professional economist. Take all this with the requisite pinch of salt.