Sound Money Without Commodities

Introduction

Recent economic instabilities have provided an incentive to ask some fundamental questions about how the monetary system works and consider possible alternatives. A key question in this consideration centers around the concept of sound money and what is required for a monetary system to provide a stable source of money that is inherently resistant to inflation and deflation.

Most people think of money as paper currency or coins. They may think of it as the amount shown on their bank statements. But what really is money? Few people realize that *money is nothing more than an accounting system to facilitate transactions between two parties*. Even fewer realize that money is created out of nothing and that it can be destroyed. There is no natural conservation law for money. However the amount of money available is constantly growing. Most people are used to seeing the value of their money depreciate over time. They have become so accustomed to inflation (rising prices) that they don't even question why it happens. The reason for this proliferation of new money is that currency no longer represents anything. At one point it was backed by gold or silver. There is no currency in the world today that is 100% backed by any commodity. Thus, more money can *easily* be created. *Sound money is money that represents a commodity* and cannot be created without having more of the commodity that it represents. This allows new money to be created without depreciating the value of the existing money. The only problem with this is that if you don't have more of the commodity then you can't create more money. This tends to cause a deflationary trend (falling prices). There is also the problem that a valuable commodity such as gold is being stored for the sole purpose of backing the money in circulation. Is it possible to have sound money without having the money backed by any commodity? If one observes the basic properties of money when it first emerged it is possible to retain those properties in a modern monetary system and provide a stable source of money that is resistant to inflation and deflation while also not requiring any commodity to back it.

Properties of money

To understand the basic properties of money, one has to start at the beginning when money did not exist on this planet and people got along without it. They simply bartered; exchanging goods and services directly without any intermediate form of money. Of course there would be situations where one person would not have something the other wanted so transactions weren't always possible. Over time people discovered that some commodities were needed by everyone and that if they exchanged their goods or services for these commodities they could later use these to trade for anything else. But these commodities were often perishable and could not be held for a long time; they had to be used or traded way before they went bad. In civilizations all over the world people eventually began using various forms of non-perishable commodities such as shells, sticks, metals and gems as the central medium of exchange. Eventually metals became the most popular form of intermediate exchange commodity. So much so that the metal was shaped into coins and reserved for use as a currency instead of it's usual use in jewlery. Since carrying the metal currency and keeping it safe was a problem, people started storing it with gold smiths who issued them a paper receipt. People discovered that it was much easier to carry the paper receipts than the actual coins and the paper receipts started being used as the medium of exchange. Over time people developed so much faith in the paper currencies that issuers stopped backing the currencies with precious metals. At this point it became a fiat currency; accepted based only on trust that others would accept it as the medium of exchange. The advent of computers and networks allowed money to be stored and transferred electronically without ever having to be exchanged physically; thereby reducing the need for paper money.

In summary the stages that money went through from non-existent to electronic money are:
1. Bartering (no money)
2. Popular commodities (corn, milk, meat, etc.)
3. Non-perishable commodities (shells, sticks, gems, etc.)
4. Precious metal currencies (gold or silver coins)
5. Precious metal backed notes (paper money which could be exchanged for precious metals)
6. Faith based notes (paper money with no intrinsic value)
7. Electronic money (numbers in computers; transferred via networks)

The reason why money evolved from one stage to another was mostly for the convenience of the people that used it. However, money lost some good properties that it initially had and acquired some bad properties as it evolved.

When money went from perishable commodities to non-perishable commodities, it allowed for the storage of wealth. Prior to that no one could accumulate money and get much more wealthier than someone else. Commodities had to be used or exchanged before they went bad. The ability to accumulate wealth by accumulating non-perishable commodities is bad because the accumulation of wealth by some will result in less money for others. Eventually this will lead to very large divides between the rich and poor. Unless there is sufficient charity or a welfare system the poor will face extreme poverty.

When money evolved to precious metal coins, it developed a strong intrinsic value. The metal had to be mined, melted, purified and shaped before it could be used as money. Thus making it valuable not only because the metal was rare, but also because extensive human effort went into transforming it into a currency. This imposed a natural limit on the rate and amount of new money that could be created, thus providing stability for the money. However, precious metals are quite heavy and cumbersome to carry around and protect.

When money evolved to paper notes backed by precious metals it went from being distributed to being more centralized. It required someone to store the precious metals in safe keeping and issue the notes. It also required trusting the issuer to stand behind the promise that it could be exchanged at anytime for the precious metal it represented as well as not issuing notes which could not be backed. It empowered the issuer of the notes.

When money was no longer backed by a precious metal it lost it’s intrinsic value. If money has no intrinsic value it can still function just fine as long as everyone has faith in the issuer, but once confidence is lost, the money becomes worthless and won’t be accepted for transactions. The people were dependent on the issuer of the money to maintain its stability and value. If there is no limit on the creation of money then the issuer can dilute the value of money by creating more of it. The issuer of money is in effect the master and everyone who acquires the money by exchanging goods and services for it are essentially enslaved because they are working for nothing. This will be experienced as inflation in the prices of goods and services.

The evolution of money from a physical form to a purely electronic form is still in progress. It will make the money even more centralized; require even more dependence on trusting the issuer and make it extremely unstable since any amount of it can be created without incurring any expense; it doesn't even need to be printed. In terms of convenience though, it is the ultimate form of money. But the convenience comes with a very big hidden cost.

In summary the bad properties that money acquired as it evolved are:

1. Accumulation of wealth.
2. Central control by the issuer.
3. No intrinsic value.
4. No limit on creation of money.

It would seems obvious that in order to remove the bad properties of money it should be backed by a commodity such as gold or silver. But is that really required? Is there something wrong with money having no intrinsic value? If money is nothing more than an accounting system to facilitate transactions between two parties, then why is it required for the numbers used in the accounting system to have an intrinsic value. It is really to protect against the issuer of money from creating worthless money and destroying faith in the system.

Sound money without commodities

If money is viewed as the point system used in an ongoing game where players enter the game, play for a while and leave then it becomes clearly obvious that giving some players the privilege of issuing points as they will is not at all fair to the rest of the players and that there should be well defined rules by which points are created and destroyed. There should not be some players who have control of the points. Rather, there should be well defined rules that govern the point system used in the game such that anyone can serve the role of the issuer. Such a point system will in-fact be sound money without needing to be backed by physical commodities. There is no reason to tie up valuable commodities to represent the points.

We will refer to the people who have accepted the rules of this game as a society. There are a few basic principles which govern the point system of this society.

1. The amount of points in circulation should be proportional to the number of people in the society.

2. Points should be created by periodically giving an equal amount to all people in the society.

3. Points should be destroyed by periodically removing a proportionally equal amount from all members in the society.

Here is one example of how such rules can be implemented.

* Every 7 days 200 points are given to each human in the society that is considered of a responsible age to handle money. This is followed by immediately removing 0.02% of the total points that have been accumulated by each individual.

* Members of society can join together to create organizations such as corporations, governments, clubs, etc.

* Every 7 days 0.02% of the points are removed from organizations and no points are added.

* When a human exits the society the points they have accumulated are given to the other humans, and organizations specified in their will as beneficiaries. Any points not given away are deleted.

* Points registrars are profitable organizations that have been given authority to operate as point registrars by the society. They allow a human or organization to setup an account with them and provide the service of maintaining the balance of points and transferring points to other accounts (at the same or different registrar) in exchange for a service fee. Point registrars are responsible for implementing the rules defined for the creation and deletion of points. Point registrars may not loan points or extend credit. Although there can be multiple registrars to choose from a human or organization can maintain only one effective account with only one registrar. They can at anytime move their account to a different registrar. Every 7 days all registrars publish the balance and type of all accounts. The account holder is identified by a code which is shared between only the registrar and the account holder. This allows everyone in the society to be aware of the total number of points in the society and how it is distributed. The point registrars are periodically audited by an oversight committee setup by the society. The point registrar relies on an identity registrar to validate the uniqueness of each account create and weather the type of entity is an individual or an organization. Identity registrars may be government agencies such as the IRS or SSA in the US.

* Investment funds are profitable organizations that sell shares to raise funds and loan the funds it has raised to people or organizations in the society at whatever rate it can demand. It can also pay dividends to it’s share holders. Investment funds cannot provide the service of point registrars. These are essentially banks, but people will understand that their points are at risk when they buy the shares of these organizations.

* Points can be converted to other currencies by profitable organizations that operate as exchange brokers that buy and sell the points and other currencies using a buy and sell spread.

* Governments are setup as organizations authorized by the collective will of the society and can tax their constituents to raise funds. Governments also have an account with point registrars and the same rules apply to government accounts.

Justifications

A monetary system based on these simple principles will provide a sound and stable money supply without needing to use physical commodities or requiring external intervention.

It may seem strange that all people in the society are given money which is created without any initial source. This is possible because money is nothing more than an accounting system to facilitate transactions. It can be created and destroyed. The important thing is that the rules by which it is created and destroyed be fair and consistent. Basically this system simulates individuals being able to harvest 200 grams of a virtual commodity (say vgold) per week. Over time the vgold erodes and loses about 1% of it's weight per year. One million grams will lose 200 grams per week. Thus on average the amount of vgold held by each individual in the society will be one million grams.

One may say that such a system of giving money to individuals will encourage them to not work and become lazy. However, the prices of goods and services will adjust so that the amount given periodically will just barely be sufficient to survive and people will have to work to improve their standard of living. But as automation increases and human labor is needed less and less the prices of goods and services will reduce so that the amount given periodically will be more than sufficient. The system will self adjust the cost of living to encourage human labor when it is needed and provide a welfare system when human labor is not needed.

When the human population of planet Earth was much smaller a new being on the planet would be able to find natural resources like land, water and food and take from it what was required for survival. As the planet became more populated and all resources were claimed a new being coming into the planet can no longer take anything and thus cannot survive without being enslaved to the earlier inhabitants who have already claimed ownership to all the resources. A monetary system based on periodically giving all individuals an equal amount of an exchangable resource gives every new being an opportunity to survive even when all natural resources have been claimed.

One may say that an individual who does not work and survives only on the amount given periodically has not contributed anything useful to society. However, even such an individual has contributed by merely spending the money that was received. The individual has lived resourcefully and has applied intelligence to decide which products and services to spend the money on. The individual has in effect cast a monetary vote for the companies of the chosen products and services. This is in a way similar to the work done by investors on Wall Street who cast a monetary vote by deciding which companies to buy.

It may also seem strange that everyone loses about 1% of their savings each year. This is actually a property of perishable physical commodities that is being carried over to electronic money. This loss is just enough to offset the fixed amount given periodically so that the total money supply divided by the number of individuals in the society will be relatively constant. This is a key feature needed to maintain price stability without external intervention. As the population of a society increases or decreases the quantity of goods and services will also increase or decrease. For example the number of shoes produced will be proportional to the number of people in the society. If the average amount of money held by each individual is constant then the price of the shoes will remain constant even as the total money supply increases or decreases.

The gradual decay of money also removes the advantage that it otherwise has over physical commodities. As individuals gain wealth they seek a medium to convert the wealth to in order to retain it forever. All physical assets degrade over time, and have a cost for storage and safe keeping. If electronic money is a perfect store of wealth that does not degrade and has very little cost for storage and safe keeping then money will be horded to store the wealth and thus reduce the money supply available for transactions. This in turn would cause prices to go down and encourage even more hording. The gradual decay of electronic money helps to prevent this from happening.

The value of 200 points added per week and 0.02% decay per week chosen in the example were so that one point would be similar to one US dollar. At a rate of 200 points per week an individual will acquire 10,400 points per year. This is close to the 2011 poverty threshold of $10,890 USD defined by the US Census Bureau. Holding one million USD is considered wealthy (a high net worth individual). The 0.02% decay of one million points per week is just enough to cancel the 200 points added per week. The amount added per week really only control the resolution of the currency and the decay rate controls the propensity to save versus spend. A higher decay rate encourages spending while a lower decay rate encourages saving.

By using investment funds instead of traditional banks the system significantly reduces the money multiplier effect caused by fractional reserve banking. This removes the need for centrally controlled reserve limits and interest rates. The interest rates offered by the investment funds will be controlled by market pressures. There will still be some money multiplier effect but it will be much less because the money itself will be a good store of wealth and does not need to remain invested to counter inflation and maintain its value. The justification for eliminating traditional banks is that even though they offer a better proposition to the individual by offering a return on their money without any risk of losing it, they are in aggregate bad for the society because they multiply the amount of money in circulation and thereby cause inflation. Thus the proposition although attractive on the surface is false because the money stored in the bank even with the interest it earns may not be able to keep up with inflation. The individuals of the society would have been better off storing their money with an institution that does not loan it or pay interest, but provides the usual services of a bank for a service fee. The point registrars mentioned in the above example provide this function.

The system makes a clear distinction between individuals (humans) and organizations (corporations, governments, trusts, etc.). The reason being that organizations exist to serve individuals. This is incorporated into the system by the rule that only individuals receive new money flowing into the system. Organizations must create products and services for individuals in order to earn a profit and pass on dividends to their owners in the case of corporations. Government organizations may not create any money and can only obtain it by providing services to the individuals and receiving tax revenues determined by the society.

Another reason why only individuals receive new money and not organizations is because any individual can create multiple organizations. If organizations also received money periodically then individuals would create organizations that serve no purpose other than collecting money for their owner.

Features

In summary the rules of this monetary system provide the following features:

* The system can serve as sound money without requiring the use of commodities to back the medium of exchange.

* The system is inherently resistant to inflation and deflation and provides price stability.

* There is no need for anyone to have the unfair advantage of issuing money.

* The money supply will expand and shrink based on the number of individuals in the society.

* Rather than new money entering from the top (through few) and tricking down (to many), it enters from the bottom and rises to the top as products and services are provided to individuals by companies.

* If no transactions occur the system will stabilize with all humans having a fixed amount of currency and all organizations having no currency.

* No individual in the society will be so poor as to not be able to sustain the bare necessities of life.

* No individual or organization will be able to attain unlimited wealth. Not even governments.

* There is both an incentive to save and an incentive to spend.

* Everyone is aware of the total number of points in the society (the “money supply”) and it’s distribution. This allows markets to set prices for goods and services more quickly and fairly.

* New points come into the system only through humans and not organizations. Thus, the organizations will be focused on serving the humans.

Implementation

With the recent advent of cryptocurrencies the system described here can be implemented as a variant of the Bitcoin system. There would not even be a need for the point registrars described here because the Bitcoin system already provides the service of maintaining a balance for each account and allowing transfers between accounts. The rules for money creation and destruction can be implemented into the software of the Bitcoin variant. The only component lacking is a globally distributed identity registrar to distinguish between human accounts and organization accounts and prevent the same individual from creating multiple human type accounts. If this could be achieved a truly distributed, decentralized, global monetary system would emerge that provides a value to the people of the world as never before seen.

The reason why this monetary system (call it the vgold system) would be very popular and catch on extremely fast is that individuals would join the system because they periodically receive free money. The sooner they join the more they can accumulate. Initially they will be accumulating money waiting for goods and services to be provided. As the number of individuals in the system grows they will become more attractive to vendors offering goods and services because these individuals have money which they received for free and are willing to spend. As more vendors come into the system it will encourage more individuals to join.

Conclusion

In today's society the issuers of fiat money have many problems to deal with. In order to retain their control as the issuer of money, they must maintain a demand for their money. This is done by requiring government taxes to by paid using the issued money. This is also done by forcing countries to accept payments for key commodities such as oil in their issued money. Politicians and laws have been manipulated to allow the issuer the privilege to control the money supply rather than allowing the people and their governments to control it. Wars have been encouraged to create demand for the issued money, because governments need to burrow more money during wars. The issuers have to do whatever it takes to keep the peoples faith in the issued money. A system that comes into power will do whatever it can to remain in power. They would like to maintain price stability, but at the same time they need to control the people by offering money as an incentive to have them do what the the issuers want; for example fight wars. Over time the distribution of money added by these incentives dilutes the value of the existing money and creates inflation.

Eliminating the need for privileged individuals to issue money will remove many problems faced by the world including poverty, war, and economic instabilities and bring the world into a peaceful era where people can focus their efforts on productive and enjoyable endeavors. The way to achieve sound money without commodities may lie in the rules of a simple game.

Omar Syed
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