

Fractional reserve banks are always inherently bankrupt. If all ticket owners would come at the same time it would be impossible for the bank to redeem all notes into gold. From a legal point of view what fractional reserve banks do is they create multiple owners of the same piece of property. If you have two owners who at the same time claim to be the exclusive owner of one piece of property, conflicts must arise. These conflicts become revealed in a bank run, when not everybody can be paid but whoever comes first is paid, whoever comes later is not paid at all. The same is true for fractional reserve banking under a fiat currency, where more paper money is loaned out than has been deposited.

### **Business cycles**

If you create additional pieces of paper money uncovered by gold or real deposits, this will lower the interest rate below what it otherwise would have been. Businessmen will begin a larger amount of investment projects than otherwise, but no additional savings has actually taken place. So we then have a volume of investment going on that in the long run is unsustainable.

# What Is Money?

*Based on the works of Hans-Hermann Hoppe and Ludwig von Mises*



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## Trade

Before we come to money, the question arises why there is trade in the first place. If we imagine that in the beginning every person was identical to every other person; like a clone. And also that the land and its resources were the same for every individual so that everyone would find a tree in front of him and a lake in front of him, and there was no difference in this regard. Then what we would expect is that everyone would produce the same amount of the same goods and use them up in the same way. In that situation there would be no reason to think of trade. Why would someone trade one good for another good that is exactly the same? So there must be differences between the productive skills or in the environmental resources of individuals for trading to come about. Once these differences exist, then people may come up with the idea to trade one thing they produced with another thing produced by someone else. In order to explain the emergence of a division of labor and then of a barter economy is the assumption of self-interest; that every person prefers to have more goods rather than less.

There exist two situations in a division of labor. One are absolute advantages where one person is good at one thing and another person is good at something else. And given the fact that time is scarce, whatever time we spent doing one thing we can no longer spend doing something else. It is advantageous to specialize in that in which one is better, and the other person specializes in what he is better, and then they engage in trade. The total amount of goods produced will be higher than it would be if both people had decided to produce only by and for themselves.

The comparative advantage considers the worst-case scenario. That is, we have a person who is in all regards more productive and a person who is in all regards less productive. Does it make sense for these people also to engage in a division of labor? The answer was first formulated by David Ricardo, but was applied to nations rather than to individuals. The advance Ludwig von Mises made over this was to apply the argument to the level of individuals. The answer is yes, even under those circumstances a division of labor is beneficial for parties participating in it, provided that the all around more productive person specializes in those things in which his superiority is particularly great and the all around less productive person specializes in those things in which his inferiority is comparatively small. Again, given the fact that time is scarce, if I spent time doing A, during that time I cannot produce B, so the overall result will be an increase in production and increase in wealth for all people participating in it. So in all circumstances a division of labor is more productive, and this explains why mankind has given up being isolated and self-sufficient, and engages instead in a division of labor.

## Money

So now we are in a barter economy, in which people produce partly for themselves and partly they produce for the purpose of trading their goods for the goods produced by others. And we discover that there exists a problem in a barter economy. Because in order to trade it must be the case that I have what you want and you have what I want. A 'double coincidence of wants' must exist. If only one of those exists, I have what you want but you don't have what I want, then a trade can't occur. In a world that is characterized by uncertainty it can happen that double coincidences are absent and we are stuck in our attempt to acquire other goods for the goods that we have produced solely for the purpose of exchanging them for something else. What do people do when they are stuck and cannot immediately, directly acquire what they want? This is the beginning of the explanation of the emergence of money.

## The emergence of money

This explanation has initially been given by Carl Menger and was then refined by Ludwig von Mises. Initially there is one

The Federal Reserve Act created the Federal Reserve System, the central banking system of the United States. (1913)

[http://en.wikipedia.org/wiki/Federal\\_Reserve\\_Act](http://en.wikipedia.org/wiki/Federal_Reserve_Act)

Executive Order 6102 "forbidding the Hoarding of Gold Coin, Gold Bullion, and Gold Certificates" by U.S. citizens. (1933)

[http://en.wikipedia.org/wiki/Executive\\_Order\\_6102](http://en.wikipedia.org/wiki/Executive_Order_6102)

## The end of the line?

At this point one organization has taken complete control of the creation and circulation of money. In every step they caused the problem in the first place, and then took more power during the crisis when people were unaware of what was really going on. Now, when you are the only one who can print up paper tickets, you will print them. It costs almost nothing to print it, you can invent all new ways to spend the money on and you will also find out that you have more friends than you ever thought you had who all come running to you to benefit from this magical source of wealth.

But there are still some problems that remain in existence. With different countries, there are different fiat currencies. When one country inflates more than another country, their currency will fall against the currency of another. No government likes to see it become a permanent process, that it's currency keeps falling against the currencies of other countries. People will observe this and try to hedge their losses through the international currency market, losing the government of income. And as before, governments come up with the same type of solution when faced with people trying to store their purchasing power in the safest places: to remove even this possibility, by forming an international and ultimately a one world paper currency. We are already on the way towards this, with the coming of the Euro for instance which reduces the number of currencies already to three major currencies. And if you would have only one world currency, issued by a world central bank, controlled of course by the United States, then by definition this currency can no longer fall in the currency market against any other currency. And this would be the situation where inflation would reach it's highest levels.

## Banking

Full reserve deposit banking works as follows. People put their money in a bank, pay a fee for it, do not give up ownership in the money, and can come any time they want to redeem their money for the ticket. They can also exchange titles to the money with other people, who then become the owner of the physical money in the bank. This type of banking is non inflationary. The amount of money certificates increases or decreases by the same amount of genuine money deposits that have been made. As soon as withdrawals from the bank occur, gold enters the circulation and the tickets are drawn up. The total quantity of money is not affected by it nor does it cause other people's money to lose or gain value.

The second form of banking is that of savings and loan banking. People put their money in a bank and the bank acts as an intermediary for investments. People loan their money to a bank at interest, and the bank loans that money to others at interest. Something is being done with the money. A savings and loan bank does not have to hold any reserves. They can loan out all the money that they have, as long as they make sure that at the time they have to pay the savers, the loans have been paid. So savings and loan banking also does not involve any increase in the money supply. The fact that something is being done with the money means that for the agreed upon period, the saver cannot get his money out.

Fractional reserve banking implies that more tickets have been brought into existence than gold to back up these tickets.

for a different source of income and this is trying to gain monopolistic control over the supply of money. All governments basically do that in a three step process. Some governments have done that earlier, some have done that later.

## Government monopoly

In the free market there exist different minters of gold, who offer their coins and compete for clients. It is precisely the possibility of competition that gets an industry to tailor to the needs of customers. If one producer sells coins that are not the precise weight he promises, competitors are eager to point this out and take all his customers away. The first step government undertakes is to monopolize the minting of gold. In the name of quality protection, it gives itself the sole right to produce it. But by being the only legal producer, it is now far easier to do precisely what it blamed its former competitors to do, namely to reduce the gold content. They recall the gold coins, they melt them down, remint them, give people back the same quantity of coins but they subtract ten percent of each coin which they keep for themselves. This amounts to a ten percent increase in taxes, but it is less easily discoverable what is going on. However, this form of taxation cannot be repeated over and over again because people will catch on to the fraud and will rebel.

Besides gold coins being offered by various coin minters there will also be money substitutes: people deposit their gold in a bank and receive in return a ticket entitling them to their gold and they pay a safekeeping fee. These tickets are then accepted, if people trust the banks, as if it was real money. This is how paper money can come into use, because the paper in this case is nothing else but a title to something else: a title to a certain quantity of gold stuck somewhere in a bank. People are willing to accept it because they know it is just as good as gold is, and all they have to do is take the ticket to the bank and get the gold out. Different banks issue their own papers. Government now argues again: "couldn't they just print additional pieces of paper not covered by gold?". Yes, they could. But again, it is precisely competition between banks that makes it very difficult for banks to do this; to print notes which are not covered by gold. Because as soon as one competitor would find out bank A does that sort of stuff, they would point that out and then a bank-run would occur. This possibility keeps banks honest. The second step then is that the government outlaws the private production of money certificates and claims this right only for themselves. After this is monopolized it is again much easier to do what they blamed banks to do: to print additional tickets uncovered by gold. But after a while there are more ticket owners than there is gold in the banks. So bank-runs occur and as soon as they occur the third step in the process occurs which is that from one moment on the government stops redeeming paper tickets into gold as they initially promised. The gold, you have to keep in mind, is what people have initially deposited in the banks. At the same time they outlaw the private ownership of gold. They demand people deliver their gold to the government and they will be paid, "generously", in the form of paper money. They also enact legal tender laws which state that you must accept government notes for debts and payments. And so, they have completed the monopolization and nationalization of money.

In the United States the first step, the monopolization of minting, begins with the history of the United States itself. The second step, the monopolization of money substitutes, occurs with the founding of the Federal Reserve in 1913. The third step, stopping redeemability, occurs in 1933.

The Coinage Act established the United States Mint and regulated the coinage of the United States. (1792)

[http://en.wikipedia.org/wiki/Coinage\\_Act\\_of\\_1792](http://en.wikipedia.org/wiki/Coinage_Act_of_1792)

bright person in society who makes the observation that in the barter economy not all goods that are traded are equally marketable. Some goods are more easily traded on the market than other goods. So he has to find someone who is willing to buy what he has to sell (for direct consumption or production) and has a good to offer that has a higher degree of marketability than his own goods. The advantage of acquiring more marketable over less marketable goods is that they are more easily resalable for those things that are really wanted. Now as soon as a single person has demanded a good for this purpose rather than to be used for direct consumption or production, the degree of marketability of it increases further, above and beyond the degree that existed before because there are still all the people who demand it for consumption and production, plus there is now also one person who demands it for its high degree of marketability. Now imagine other people being stuck in the same situation. The next bright guy encountering the same difficulty. It becomes in every step easier to recognize what the solution to the problem is. Just acquire something that is more marketable than whatever you have to sell, and the chance that he picks the same type of goods also increases step by step. And so there develops a convergence towards one particular good being selected as a common medium of exchange. And so more or less everybody in society uses the same good for this purpose to facilitate the reselling and attaining those things that he really wants, and this is the definition of a money. Money is defined as a common medium of exchange.

## Cost accounting

With a common medium of exchange the problem of double coincidences disappears, because everybody is now willing to sell almost everything against this money. But we can now also engage in cost accounting. Cost accounting is the practice that every businessman engages in, day in and day out, to compare the input prices (what you have to offer people for it on the market) with the output prices (what you can sell it for on the market) in order to determine whether he produced efficiently or whether he wasted scarce resources in the production of goods that are less valuable than those things that went in to the production of the good. In barter we have no common denominator for the various goods that we output. Only if we do have a common denominator are we able to make this kind of comparison and the decision to continue or discontinue what we do.

## Money characteristics

Economic theory does not predict what commodity will be selected as a common medium of exchange. But we can predict that there are certain characteristics that a good can have that either increase or decrease the likelihood that it will be chosen:

- 1) *Divisible*. Purchases can be of all different sizes. We would like the commodity used for money to exist in different quantities as well. Something that can be divided into ever smaller units and still retains its value.
- 2) *Durable*. If a good retains its value for a longer time.
- 3) *Portable*. The function of money is to facilitate trade, so if something is valuable even in small quantities then not a lot of weight has to be carried around for making purchases.
- 4) *Recognizable*. It should not be too difficult to figure out if it really is what the person says it is.

## Can unbacked paper money come about based on market forces?

So even though we cannot say exactly which good will become the money, we can see that it must be something that was initially a valuable consumer or producer good, traded in barter. This good has a high degree of marketability. And in reverse we can say that it is not possible that something that is not a valuable commodity traded in barter can be chosen as money.

This raises the question: can fiat money, unbacked pieces of paper, function as money from the beginning. The answer is no, it cannot. We may see how fiat money can come into existence but not at the beginning. Imagine you have a valuable good. Someone would like to have it but doesn't have anything that you would like in return. Then he comes up with the glorious idea to tear off a piece of paper, writes '10 dollars' on it, and then offers it to you and says: "Here 10 dollars, how about it?". Naturally, you would laugh him off. But then he increases his offer by adding two zeros to it and raising the question again. And now you may think he is ready for the madhouse.

So a money must start out as a valuable commodity good, chosen by the market.

## The spreading of a commodity money standard

Initially at the development of money there existed various local moneys. The reason was because for each different trading areas, people trade their goods for more marketable goods and finally one good outcompetes all other goods in the function of being a medium of exchange. Now when different regions start trading with each other, they are still in a system of partial barter in regards to each other. So those people who don't share a common medium of exchange have to rely on a double coincidence of wants. Instead, they trade for more marketable goods and the same thing happens that happened in the smaller region, namely that one good outcompetes all other goods in its marketability and thus as a facilitator of exchange.

Historically speaking, we can say that at the moment when the entire world was integrated to a large degree in one giant exchange market, and the division of labor expanded and extended, also came into existence an international commodity money, namely, the gold standard.

## The supply of money

What is the optimal supply of consumer goods? The answer is generally: more is better than less. For producer goods, the answer is the same, as more producer goods give rise to more consumer goods. If we look at money however, we come to a different conclusion. Why isn't more money better than less money? Suppose the amount of money each individual has doubles overnight. Would society be better off because of this? What will happen is that the prices of consumer goods and producer goods expressed in the money will double. But our standard of living depends on the consumer goods and producer goods in existence. We don't consume money, we don't produce anything out of money. Money is just a facilitator of exchange. What may happen in the case of an increase of that good is that a different commodity will now outcompete the previous commodity as money. In reverse, if the money supply falls in half, are we worse off? What will happen then is that the prices of goods will fall in half. What we conclude from this is that any quantity of money is equally as good as any other quantity. Only to the extent that the money commodity is used in a non-monetary way (for example, how gold is used for filling teeth and making high tech equipment), does an increase make us wealthier.

In the case of paper-money, where there exists no non-monetary use for it, any increase in the amount is something that does not benefit society as a whole. But where it can't benefit society as a whole, an increase in the supply of money can redistribute income within society; it can make some people richer and other people poorer. To illustrate, imagine again a sudden doubling of the amount of money in existence for each individual. Upon this discovery, two hypothetical people react differently. The first person spends his additional money immediately. What will happen to prices? The goods on which he spends his additional money will begin to rise in price, as there is an increased demand for that good. The goods on which he

spends his additional money will begin to rise in price first, and then as the new money comes into circulation, other goods will experience an increased demand, and those goods will rise in price too. But initially when this person spent his additional money, he could buy at the old, lower, price. And what of the second person, who waits for four weeks to ponder what to do with his additional money? He will find that he can no longer buy many goods at the old, lower prices. So that person who spent his money first gains in wealth at the expense of the person who waited, and there is an income redistribution taking place. In real life, increases in the money supply do not occur equally for all individuals. Instead, additional supplies of money come into the hands of particular individuals at particular places. And it is those who get the money first and spend it first who gain at the expense of those who's income has not yet risen and who in the mean time have to pay higher prices, driven up by the first person spending the money first.

## Purchasing power

Some economists believe that the purchasing power of money should remain the same over time. Money that has a purchasing power that allows us to buy the same quantities of goods with the same amount of money over the course of time. Money is used to purchase goods in the economy. So prices are the amount of money in relation to the amount of goods. In growing economies there is an increase in the quality and quantity of goods, because of savings and investments, technological discoveries, cost-cutting optimizations, and so on. So if such an economy was under a free market gold standard and there were only tiny additions in the amount of gold from year to year, then prices would continue to drop. This is a sign of a healthy economy. If we look at computers or telecommunication, we notice that we can buy better products over the course of time for the same amount of money. That is how we measure progress. If despite advances in production and cost-cutting, the prices of goods don't drop, then that means that all advances that have been made are at the same time being inflated away through an increase in the supply of money. Remember that an increase in the money supply, if it is distributed evenly, has no effect on our wealth. But when one group claims for itself the power to print money, in the name of price stability, they are just taking away our would-be increase in standard of living, for their personal gain. Under a paper-money standard, you can increase the amount of money at will. Hereby it is easy to explain why prices expressed in terms of paper money increase all the time instead of fall.

## Do we see around us what we would expect?

So now when we look at the real world, do we find what we would expect from theoretical insights? No, the reality is very different. There is no commodity money in existence. Not a single currency nowadays is a commodity money. Secondly, there is no market-wide global money in existence; we have various competing national currencies. Thirdly, the tendency is not for money to increase in purchasing power but to decrease; in some countries more, in others less.

How does this come about? In order to explain this we have to introduce the institution of government. Some economists present government as a type of firm. But it should be clear that they are a very unique type of firm. First of all, an institution that funds itself through taxes does not come into existence because there was a demand for it. Nobody demands to be taxed. Secondly, regular firms, who come into existence because there is a demand for their products, grow because their demand grows. People want to buy more Ford cars, so that makes Ford grow. And when people stop buying Ford cars, then Ford goes out of business. Governments do not go out of business if people say "lousy service last year, I would like to discontinue my cooperation with you". They are dependent on tax revenue and have the same desire as everybody else: greater wealth is better than less wealth, more income is better than less income. But raising taxes can be a dangerous thing. So they are looking out