

Re: The Citizens' Guide to Money

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On Jan 6, 8:15 pm, monetaryscie...@xxxxxxxxxx wrote:

A relatively short and somewhat opinionated guide to Monetary Science, targeted towards all interested citizens, is posted at monetaryscience.blogspot.com . Welcome to come take a look.

I am also posting it here. (Visit the website to see original version with hyperlinks)

THE CITIZENS' GUIDE TO MONEY
by Monetary Science (monetaryscience@xxxxxxxxxx)
Posted at monetaryscience.blogspot.com

"I care not what puppet is placed upon the throne of England to rule the Empire on which the sun never sets. The man who controls Britain's money supply controls the British Empire, and I control the British money supply." – attributed to Nathan Mayer Rothschild [1]

INTRODUCTION

It is now widely recognized that we are entering a period of global financial instability. The US is spending huge amounts on military operations the world over, and needs to borrow about three billion dollars a day to keep functioning. Many Americans households are drowning in debt. The value of the dollar has been declining, and there are worries that it may collapse altogether. There are fears of another Great Depression in the US. Some people have begun arguing for the reintroduction of the Gold Standard. What will all this mean for us? How will our lives and communities be impacted by monetary decisions taken at the top? To answer these questions we need a sound understanding of the functioning of the modern monetary system.

Gaining this understanding is our goal in this Guide.

Monetary Science is the science of regulating the money supply in an economy. It has profound effects on our lives. It is the duty of every citizen to understand its fundamentals, and be vigilant about monetary policies. Unfortunately, the subject is often made arcane and obscure, perhaps deliberately. The state of affairs is nicely summarized in a paragraph from a letter reportedly sent by the firm Rothschild Brothers of London, in 1863 [2]:

Re: The Citizens' Guide to Money

The few who can understand the system ... will either be so interested in its profits, or so dependent of its favors that there will be no opposition from that class, while on the other hand, the great body of people, mentally incapable of comprehending the tremendous advantages that capital derives from the system, will bear its burdens without complaint and perhaps without even suspecting that the system is inimical to their interests.

I do not believe that monetary policy is "rocket science". Any one with a little patience, and willing to give the subject some careful thought, can easily grasp its essentials. I will not deluge you with technicalities, but I will nevertheless be fairly complete and logically sound. This may take upto an hour of your time. Hopefully, you will be able to take away a deeper understanding of the difficult economic questions that confront us today. The topics that we will cover include:

- * The Wealth of Nations: What makes a Nation prosperous?
- * What is money?
- * Inflation, Deflation and the transfer of wealth
- * How monetary policy affects the "personality" of an economy
- * The proper regulation of the Money Supply
- * How money is injected into, and withdrawn from an economy.
- * The concept of Interest
- * The concept of Fractional Reserve Banking. Is it sound?
- * Interest rates versus money supply growth rate
- * The role of the Central bank in preventing instability
- * Monetary Policy, Exchange Rates and International Financial Flows
- * How Central Bankers can profit from boom–bust cycles
- * How to build a sound monetary system
- * The Gold Standard debate

OK, here we go. Get a nice strong cup of coffee, sit up, relax, and enjoy the ride.

THE WEALTH OF NATIONS: WHAT MAKES A NATION PROSPEROUS?

Let us start from the very fundamentals: What is it that makes a nation wealthy? What is it that allows citizens to lead prosperous, comfortable and fulfilling lives?

It is very clear that if each person had to grow or hunt his own food, make his own shoes, build his own shelter, we would all be living in a pretty barbarous fashion. This leads us to the principle that wealth is generated through specialization of labour and exchange of goods and services.

Wealth is also generated through ideas and innovation – better technology and more efficient processes.

Re: The Citizens' Guide to Money

A third factor affecting the prosperity of a society is human behavior: People should save and also make prudent investments. Neither profligate spending nor miserliness is conducive to the generation of wealth.

A BRIEF HISTORY OF MONEY

Money plays an important role in our lives. Most of us use it every day, and some of us dedicate their lives to accumulating more and more of it. Yet few understand what money actually is. Those pieces of paper which we call money are intrinsically worthless. We may struggle mightily to acquire these pieces of paper, but their value can evaporate before our eyes. That dollar bill in our pocket, earned with the sweat of your brow, is not worth what it was a year back. But then, where has that value gone? Has it simply disappeared, or has it been surreptitiously transferred to somebody else? We will answer these questions in due course.

The purpose of money is to enable the efficient exchange of goods and services. So money plays an important role in facilitating prosperity. Let us take a look at how our monetary system has evolved to its present form.

The most basic form of exchange is barter – for example, a farmer swapping his wheat for a pair of shoes from a cobbler. But barter can be inconvenient. What if the farmer does not need shoes? The farmer might try to swap the shoes for something else that he needs. But shoes are not easy to swap. One solution is for the farmer to be paid in another commodity, say salt. The farmer may not be able to eat all the salt himself, but he may be able to swap it easily for things that he does need.

Something that is accepted in exchange for goods and services is called a currency. In the above example, salt is being used as currency. A currency needs to be convenient to use and should retain its value over time. As cultures evolved, pieces of precious metals like gold came to be used as currency.

People found it necessary to keep their gold in safe repositories or "banks". The banks would store the gold in their vaults and would issue paper receipts or "notes". Anybody who went to the bank with a note would be able to redeem it for gold. In that sense these notes were "backed by gold". Eventually people began to use the notes as currency, with the understanding that they were always redeemable for gold.

Since these paper notes could be exchanged for actual goods and services, some banks realized that they could profit by surreptitiously printing more notes than were backed by the gold in their vaults. The banker could use the extra notes to buy real stuff, or even to loan out on interest. As long as the banker could make payments in gold to those who demanded it, the bank would continue to

Re: The Citizens' Guide to Money

function. But sometimes people would get suspicious about a bank, and then the depositors would frantically rush to the bank to get back their gold. The bank, if unable to meet the demands of its depositors, would collapse, leaving behind hordes for enraged depositors.

This unsatisfactory situation ultimately led to the setup we have today: We have in each country a "central" bank that is authorized by the government to print currency notes. These are not redeemable in gold or in anything else. This system is called a "fiat" currency, because the notes have value only by the government decree that they accepted as currency.

INFLATION AND DEFLATION

It is a universal principle that things which are plentiful are cheap, and that scarce things tend to be valuable. This principle also applies to money. The total amount of money circulating in an economy is called the money supply. The greater the money supply, the lower is the value of the dollar. Conversely, the lower the money supply, the more valuable is the dollar.

Therefore, if the money supply is increasing, the dollar will lose value and the prices will increase. This is called inflation. On the other hand, if the money supply is decreasing, the dollar will increase in value and prices will fall. This is called deflation.

THE TRANSFER OF WEALTH

It's a very interesting fact that both inflation and deflation lead to a transfer of wealth. In an inflationary environment, someone who saves and either holds his money in cash or puts it into CDs, will get his returns in terms of devalued dollars. So he has lost some of his wealth. On the other hand, a borrower will have to repay his debt in terms of devalued dollars. So the borrower has gained wealth. Also, someone who has invested in a business will see his revenues rise, not only because prices increase, but also because people tend to spend more when savings are penalized by inflation. Therefore, in an inflationary environment, we have a transfer of wealth from savers and fixed-income investors to borrowers and equity investors.

In a deflationary environment, the situation is reversed: A saver with fixed income investments will get his returns in terms of a more valuable dollar. A borrower has to repay his loan in terms of dollars that are more valuable than the dollars he borrowed, and a business owner will see revenues fall as prices decline and people stop spending. Thus, there is a transfer of wealth from borrowers and equity investors to savers and fixed income investors.

THE "PERSONALITY" OF AN ECONOMY

Now we can see how subtle and powerful a tool monetary policy is. Monetary policy can influence the very "personality" of an economy: An inflationary policy will reward borrowing and profligate business investment, while penalizing savers and fixed income investors. A

Re: The Citizens' Guide to Money

deflationary monetary policy will reward miserliness, while punishing those who borrow and invest in businesses.

As we mentioned at the beginning, prosperity of a nation requires both saving and prudent investment. Neither miserliness nor profligacy is good. So monetary policy indeed plays a very important role in maintaining the right conditions for growth.

REGULATING THE MONEY SUPPLY

To avoid either inflation or deflation, we need to regulate the money supply so as to keep prices stable. If prices fall, the money supply needs to increase, and if prices increase, the money supply should be reduced. Effectively, the money supply needs to increase at the same rate as the real rate of growth of the economy. We shall have more to say on this towards the end. Now we turn to a very important question: How is the Money Supply increased or decreased?

The Central Bank, which is the case of the US is the Federal Reserve, simply creates money "out of thin air". The newly created money could either be in paper form, i.e. Federal Reserve notes, or in electronic form, as book-keeping entries on a computer. But the Fed does not really create something out of nothing: As the number of dollars increases, each one becomes less valuable. Printing too many new dollars will cause inflation.

Now comes a crucial question: How is this new money to be introduced into the economy? Remember that the new money gets its value by making the dollar in your wallet a little less valuable. So we had better be careful about how it is used. Should the new money be distributed equally amongst all the people? Should it be handed over to the Government to use on pork-barrel projects? How do we make sure that the new money is used in the most worthwhile way?

A reasonable answer to this quandary is that the Central Bank should not simply hand out the money, but loan it. The interest rate on the loans should be market determined. This will ensure that the money will go to only those who can use it most productively.

This leads to a very natural question: Suppose the money supply is to be increased by loaning out the money for say ten years. Then, after ten years the loan has to be repaid with interest. Will not the net effect, after ten years, be a net decrease in the money supply? The answer is no, not necessarily. The Central Bank has not been sitting still over those ten years. Recall that the Central Bank is required to maintain price stability by increasing the money supply at the real rate of growth of the economy. So, many other loans have been made over that period, and the money supply will be larger in ten years time, even if the original loan is repaid with interest. Thus, the entire money supply is in the form of loans issued by the Central Bank. The Central Bank is continuously making new loans and accepting repayments of old loans, and is responsible for keeping the money supply growing at the right rate.

Since, in today's world, economies are generally growing, rather than contracting, Central Banks normally need to keep the money supply increasing. But let us suppose that the money supply is to be decreased. How can this be achieved? If the amount in new loans made by the Central Bank is less than the amount being repaid, a net decrease in the money supply is achieved. In fact, if the Central Bank stops making new loans entirely, the money supply can, in theory, be reduced to zero over a period of time, as the existing loans are repaid.

In normal circumstances, the Central Bank is supposed to loan any newly created money only to the Federal Government, via the purchase of US Treasury bonds at market-determined interest rates. In these degenerate times, however, the Fed is making loans to crooked bankers, secured by the collateral of dubious subprime mortgages. If the bankers go bust, the Fed will be left holding millions of foreclosed homes. Should that matter to you? Yes – those loans were made with money created by devaluing the dollar in your wallet.

THE CONCEPT OF INTEREST

As we have seen, our entire money supply is in the form of loans, given on interest, of money that has been created "out of thin air". In some traditions, interest or "usury", has been condemned as an immoral practice. There are Islamic banks that manage to function without explicitly charging or giving interest. I subscribe to the view that interest has a legitimate role in an efficient economy. Let's take a closer look at the concept of interest, to see why that's so.

There are two ways in which one can view interest. First, suppose if you save some of your hard-earned money, instead of splurging it on wine, women and song. You delay your gratification, and make your savings available to someone else, who may want to use them for say expanding his business. Should you not get any reward for this? That is the role paid by interest.

A second way to look at this is as follows: Suppose you are willing to provide your savings to a business that needs funds for expansion, and that generates, on an average, a return of 12% a year. Naturally, due to market uncertainties, that return cannot be guaranteed. You may agree with the businessman to accept a lower return of say 8%, provided that this lower return is guaranteed. So you have invested in a business, and accepted a lower return in exchange for avoiding the risk. This again leads us to the concept of interest. In any case, if the players in an economy, by mutual consent, and for mutual benefit, enter into a deal that involves interest, there is no need for any third party to interfere.

FRACTIONAL RESERVE BANKING

Another feature of the modern economy that is sometimes the object of

Re: The Citizens' Guide to Money

criticism is the Fractional Reserve Banking system. So let's take a closer look.

Under the Fractional Reserve system, from an initial deposit of say \$100, banks are required to keep ten per cent or \$10 in reserve, and are allowed to loan out \$90. The bank earns interest on the loans, and in turn pays interest to its depositors. But what if the depositors want their money back? By a basic principle in probability theory called the Law of Large Numbers, it is highly unlikely that more than 10% of the deposits will be withdrawn at the same time. Furthermore, even if such an unlikely event comes to pass, the bank can take a short-term emergency loan from the Fed, which will allow it to repay its depositors. Once the loans made by the bank are repaid, the bank can repay the loan taken from the Fed. Thus, the Fractional Reserve System allows depositors to earn interest on their savings, even while allowing their savings to be available for withdrawal at any time.

Let's follow for a moment what happens happens to that \$90 that's been loaned out. It will be used by the borrower for his own purposes, and be transferred to some one else. It may then be deposited again in a bank. This bank must, from that \$90, keep ten percent or \$9 in reserve, and is allowed to loan out \$81. That \$81 may again be deposited in some bank, and this process can continue ad infinitum. If we work through the simple math, that initial deposit of \$100 can give rise to a maximum of \$900 in loans from the banking industry, while the total amount deposited with the banking industry is \$1000. In other words, from that initial deposit of \$100, the banking industry can create \$900 in receivables and \$1000 in payables. What is happening is that the same dollar is being used again and again for many transactions. Since the whole purpose of money is to facilitate exchange, this should be regarded as a good thing. The banking industry does not, as is sometimes alleged, create money out of thin air through the Fractional Reserve System. It is only the Central Bank or the Fed that is empowered to "create money out of thin air".

INTEREST RATE VERSUS MONEY SUPPLY GROWTH RATE

Currently Central Banks around the world follow a policy of Interest Rate targeting – that is, they declare a target interest rate, and then take action in the money market to achieve that target.

The Central Bank can indeed influence interest rates – by increasing the amount that is available on loan, the cost of borrowing, i.e., the interest rate, is decreased. By cutting back on lending, it can increase the cost of borrowing. The current Fed target rate, as of January 2008, is 4.25%.

However, there is a significant flaw in this policy: Interest rates are not directly under control of the Central Bank. They are determined by the market, in which the Central Bank is only one of the participants. What is directly controlled by the Central Bank is the Money Supply Growth Rate. As we saw above, the control over the money

supply is exercised by controlling the amount of newly created money that is lent out.

The drop in the interest rate due to an increase in the money being lent out by the Central Bank is only temporary. Over time, the economy will adjust to the increase in the money supply growth rate. As we saw earlier, an inflationary environment is favourable to borrowers, so the number of borrowers will increase. Furthermore, over time, lenders will demand interest rates that are high enough to compensate of the inflation that results from the growth in money supply. In fact, studies indicate that in the long run, interest rates increase with an increase in the money supply growth rate [3].

Therefore, it would be far better for Central Banks to set policy in terms of the Money Supply Growth Rate.

THE ROLE OF THE CENTRAL BANK IN PREVENTING INSTABILITY

There are players in the economy that borrow short-term to invest long-term for higher returns. An example of such a player is a bank.

But financial markets can be fickle and emotional. If an institution suffers a loss of public confidence, it may not be able to refinance its short-term loans, or even come under pressure to repay them immediately. Such a loss of confidence may or may not be justified. Once a rumour gets going, it may cause a bank to fail, even if the rumour is false. But if the investments that have been made are fundamentally sound, the Central bank can provide a short-term emergency loan to enable the institution to meet its obligations. This loan can be repaid once the panic subsides. In this way, the Central Bank plays an important role in calming the markets.

MONETARY POLICY, EXCHANGE RATES AND INTERNATIONAL FINANCIAL FLOWS

The world is getting more and more interconnected. Nowadays, a country's international dealings are an important part of its economy. An elegant principle, called the "Impossible Trinity", states that it is impossible for a country to simultaneously achieve all three of the following:

- * A fixed exchange rate
- * An independent monetary policy (i.e., control over the money supply)
- * Unrestricted international financial flows

So, for example, if a country allows unrestricted international financial flows, but still wants to control the exchange rate, then the country's central bank will have to intervene in the foreign exchange market to maintain the target exchange rate. Thereby, it will lose control over the money supply.

To illustrate, let's take China as a case study: The Chinese central bank will be able to maintain an exchange rate of say 8 yuan for every

Re: The Citizens' Guide to Money

dollar by being willing to create and hand over 8 new yuan for every dollar you take into China. But since China exports a lot of stuff, and attracts a lot of foreign investment, there are many dollars pouring into China. For each dollar that comes in, 8 new yuan are released into the Chinese money supply. The result is that the Chinese money supply grows too fast, leading to inflation. At the same time, the China accumulates an increasingly large reserve of dollars, which it typically invests in US Treasury bonds. To control inflation, the Chinese government forces new yuan to be put into low-yield "sterilization bonds". These low interest funds become available to the Chinese government, and thereby to Communist Party cronies. So it's a mess. But on the other hand, if China stops trying to control the exchange rate, then the prices of its exports will rise, and it will lose market share. The only solution is for China to rely on its domestic market and raise the standard of living for its own people, rather than relying on exports.

HOW CENTRAL BANKERS CAN PROFIT FROM BOOM-BUST CYCLES

We saw earlier how the Central Bank can, at will, expand and contract the money supply. So it is perfectly possible for insiders to cause expansion-contraction or boom-bust cycles in an economy. But why would anybody want to do this?

The answer is that there is a lot of money that can be made by an insider who knows in advance how the monetary policy will change. Here's how the scam works: We have seen earlier how in inflationary environment, there is a transfer of wealth from savers and fixed-income investors to borrowers and business owners. In a deflationary environment, there is a transfer in the reverse direction.

Therefore, at the beginning of the expansion, the insider borrows money and invests in equities. At the peak of the expansion, the insider liquidates his equity investments (which have been doing rather well thanks to the inflationary environment), repays his debt using the devalued dollars, and moves into fixed-income investments. Then, as the contraction starts, borrowers have a hard time repaying their loans and businesses see declines in revenue as prices fall. Many businesses go bankrupt. Meanwhile, the value of the dollar has been rising, benefiting the insider who holds fixed income assets. At the peak of the contraction, the insider liquidates his fixed income investments, borrows some more money, and buys into struggling or bankrupt businesses at bargain prices. Then it's time for another expansion.

Thus the show goes on. The economy is repeatedly pumped up and down, and the insider watches the money come pouring in.

BUILDING A SOUND MONETARY SYSTEM

We need a monetary system that maintains price stability, that prevents immoral transfers of wealth, and that encourages both savings and prudent investment.

This can be achieved by linking monetary policy to the price of a diversified basket of labour and commodities. The basket would include the income of people in various job categories: supermarket workers, dentists, machinists, bus drivers, managers, engineers and so on. It would also include the prices of a large number of commodities. The commodities selected should be domestically produced, and should be commodities for which there is a competitive market – i.e., a market with a large number of independent buyers and sellers. Commodities which are monopolized should not be used.

The price of this diversified basket would be a weighted average of its many items. The Central bank should continuously monitor this price using scientific surveying methods, and should set a target value for this price. Then, the Central Bank should increase the rate of growth of the money supply when the price falls below the target, and decrease it when price rises above the target. This monetary policy will result in the money supply growing at a rate that is roughly equal to the real rate of growth of the economy.

As we described earlier, a good way for the Central Bank to introduce new money into the economy is by loaning it out at market-determined rates of interest. This ensures that the money is used in the most productive possible way. The money supply is reduced if necessary by simply loaning out less money than is being repaid. There is nothing inherently wrong in using a debt-based fiat currency. However, it is necessary that everything should be done in a completely transparent manner. The items in the basket, the weights used to calculate the average, and the money supply growth rate should all be disclosed to the public.

THE GOLD STANDARD DEBATE

The alarming circumstances in which is US economy is in today, and the continuing decline the the value of the dollar has given rise to a debate on monetary policy. Some people, notably Presidential candidate Ron Paul, have been promoting the idea of returning to the Gold Standard as a solution for the US' monetary problems. Let's take a closer look.

The Gold Standard means defining the dollar as a certain quantity of gold, and issuing only as many dollars as there is gold in Fort Knox. Ron Paul also proposes allowing private banks to issue gold backed notes.

There is a serious problem with this. Somebody who has large reserves of gold could manipulate the money supply of a country on the gold standard: By bringing gold into the country, and loaning out money based on that gold, a monetary expansion can be effected. If the money is not lent out again when the loans are repaid, a contraction results. We have already seen what damage can be caused by repeated boom-bust cycles.

Re: The Citizens' Guide to Money

As a general principle, it is a bad idea to use as a basis for your currency any commodity that can be monopolized, such as gold. It would be far better to link the value of the currency to commodity like wheat, for which there is a more competitive market. There is not enough transparency about who holds the large gold reserves. Until very recently the world price of gold was fixed twice daily at the London offices of N.M. Rothschild and Sons. Lately, several countries in Europe, including the UK, France, Germany and Spain, have liquidated their gold reserves. This has been followed by a sharp rise in the price of gold, which has meant a large loss for the taxpayers of these countries. We need data about who has been buying that gold. There are serious doubts about how much gold there really is at Fort Knox, and about how reliable the audits have been. Do we know how much gold is held in vaults controlled by private banking families such as the Rothschilds, the Warburgs and the Schiffs? The Rothschilds alone are reputed to be worth several hundred trillion dollars.

Another important point is that the monetary policy should be tailored to maintain price stability for the broad variety of goods and services that are needed for modern life. Maintaining the correct money supply growth rate, while tying the currency to any single commodity is difficult enough. Tying it exclusively to a commodity like gold, which is subject to being monopolized, and has to be imported, makes it far worse.

We saw how the Central Bank has an important role to play in calming instabilities and panics in the financial system. The Central Bank is authorized to make emergency short-term loans of fiat money. There is no limit amount on the amount of fiat money the Central bank can create. This fact in itself discourages unscrupulous operators from trying to create panics and profiting from the ensuing chaos. Were the Central Bank's hands to be tied by the Gold Standard, it would be seriously limited in its efforts to prevent and calm instabilities.

For insight on how ruthlessly the economy of the United States was jerked around while it was on the Gold Standard, a good resource is the book "The Great Red Dragon" by Woodfolk, on the economy of nineteenth century America. We really do not need to go through all that pain over again. You can find other good material on CJ Bjerknes' blog.

Well, that brings us to the end of this Citizen's Guide to Money. It has been nice having you along for the ride. I hope you have found it enjoyable and useful. You are welcome to post comments at monetaryscience.blogspot.com, or send them by email to monetaryscience@xxxxxxxxx.

References:

[1] "Secrets of the Federal Reserve" by Eustace Mullins, Chapter 5.

Re: The Citizens' Guide to Money

[2] "Vindication" by Judge Rutherford. See <http://users.cyberone.com.au/myers/money-masters.html>

[3] Money and interest rates, by C. Monnet and W.E. Weber, Federal Reserve Bank of Minneapolis Quarterly Review, Fall 2001, Vol. 25, No. 4, pp. 2-13, available at <http://minneapolisfed.org/research/qr/qr2541.pdf>