April 2009

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Origins of Money CreationURE

A government that sets out to abolish market prices is inevitably driven toward the abolition of private property; it has to recognise that there is no middle way between the system of common ownership of the ***means*** *of production, or socialism. It is gradually forced toward the compulsory production, universal obligation to labour, rationing of consumption, and, finally, official regulation of the whole of production and consumption*

Ludwig Von Mises - Human Action

Understanding how money is created is fundamental to an understanding of this financial crisis.

The Creator of Money, the Money Creature or known more formally as the Central Bank is a phrase we have purloined and bastardised from Griffin's scintillating book *The Creature of Jekyll Island* – in reference to the Federal Reserve Bank and its system of spawning money out of thin air.

The Old Lady & Juno Moneta

The "creature" was arguably of British birth; rather fitting as the UK's Central Bank, 'the Old Lady' was the first to announce, in this credit crisis, that it was "printing money" to off set the collapse in the supply of credit, as demand for cash rose.

Turning the clock back and surveying Banking in seventeenth century England, it consisted mainly of scriveners – loan bankers who loaned out borrowed money, and goldsmiths, who had accepted gold on deposit and were beginning to make loans. This was a period marred by civil war. A policy of war and militarism is expensive, whatever period of history. It proved very profitable for the scriveners.

However the growing mercantile and imperial ambitions of the Whig Party - a party of noblemen and merchants - added to the financial burden. Their rise to prominence under the monarchy of William III and Mary II came at the expense of the countries' coffers. In 1690 the British government found it was short of money and its credit poor. It seemed impossible after half a century of civil wars and a poor record of repayment for the government to tap sufficient savings by inducing people to buy its bonds. Levying higher taxes was also a no go as much of the civil war had revolved around the King's attempt to extend his taxing power. The solution was ***The Governor and Company of the Bank of England***

What has become to be known as the forerunner to the modern day Central Bank was founded by a Scotsman William Paterson in 1694, to act as the English Government's banker. He proposed a loan of £1.2m to the government; in return the subscribers would be incorporated as the Bank of England with long-term banking privileges including the issue of new notes. These notes would be used to finance the deficit.

In short, since there were not enough private savers willing to finance the deficit, Paterson and his group were graciously willing to buy government bonds, provided they could do so with newly-created out-of-thin-air bank notes carrying a special raft of privileges with them

The Mystery of Banking – Murray N Rothbard

No sooner had the Royal Charter been granted on 27 July through the passage of the Tonnage Act of 1694, than the King, William, himself rushed to become a shareholder. Although it wasn't until 1833 that the bank received the permanent privilege of notes functioning as *legal tender* the bank had always had the advantage of holding all government deposits, as well as the power to issue new notes to pay for the government debt.

*The name 'London **(CENTRAL)** Banker' had especially a charmed value. He was supposed to represent, and often did represent, a certain union of **pecuniary sagacity** and educated refinement which was scarcely to be found in any other part of society.*

Walter Bagehot, Lombard Street (1873)

Its first action in 1694 had been to promptly issue the enormous sum of £760,000 of which most was used to buy government debt. This had an *immediate and considerable inflationary effect*. Gleefully for the goldsmiths (the original bankers) this led to insolvency within two years and enabled them to return the debauched Bank of England notes for redemption in specie. Their glee was short-lived as the English government passed a decree that would set the origins of our own distress today. In May 1696 the Bank of England was allowed to *"suspend specie payment"* i.e. refuse to pay its contractual obligations of redeeming its notes in gold- yet was allowed to continue issuing notes and enforcing payments upon its debtors. Furthermore, counterfeiting of BofE notes was punishable by death. These were the first steps amongst many around the world towards a fiat money system.

The Old Lady (BofE) of Threadneedle Street stands proudly as a testimony to a long tradition of periodic suspensions of specie payment and currency inflation. "Nothing new in banking" indeed.

The word "money" is believed to originate from a temple of Hera, located on Capitoline, one of Rome's seven hills. In the ancient world Hera was often associated with money. The temple of *Juno Moneta* at Rome was the place where the mint of Ancient Rome was located. The name *Juno* may derive from the Etruscan goddess Uni (which means "the one", "unique", "unit", "union", "united") and *Moneta* either from the Latin word "monere" (remind, warn, or instruct) or the Greek word "moneres" (alone, unique)

Money creation is the process by which money is produced or issued. There are arguably three different ways to create money:

- manufacturing a new monetary unit, such as paper - currency or metal coins (money creation)

- loaning out a physical monetary unit multiple times through *fractional-reserve lending* (credit creation)

- buying of government securities or other financial instruments by central bank through Open market operations (electronic creation)

The modern day money creature spawns money and credit primarily vis-à-vis the fractional reserve system. We have touched on these aspects in previous letters.

Fractious Banking Reserve System

http://www.hindecapital.com/images/downloads/hindegoldinvestorletteraugust2008.pdf

In our August 2008 HindeSight Investor Letter – Nothing New in Banking we explained the Fractional Reserve Banking system. We include an excerpt here.

The entire function of this machine is to convert debt into money. It's just that simple. First, the Fed takes all the government bonds which the public does not buy and writes a check to Congress in exchange for them. (It acquires other debt obligations as well, but government bonds comprise most of its inventory.) There is no money to back up this check. These fiat dollars are created on the spot for that purpose. By calling those bonds "reserves," the Fed then uses them as the base for creating 9 additional dollars for every dollar created for the bonds themselves. The money created for the bonds is spent by the government, whereas the money created on top of those bonds is the source of all the bank loans made to the nation's businesses and individuals. The result of this process is the same as creating money on a printing press, but the illusion is based on an accounting trick rather than a printing trick. The bottom line is that Congress and the banking cartel have entered into a partnership in which the cartel has the privilege of collecting interest on money which it creates out of nothing, a perpetual override on every American dollar that exists in the world. Congress, on the other hand, has access to unlimited funding without having to tell the voters their taxes are being raised through the process of inflation. If you understand this paragraph, you understand the Federal Reserve System.

The Fractional Reserve banking system employed world-wide is the practice in which banks keep only a fraction of the value of their bank notes and demand deposits (literal meaning deposits on immediate demand) in reserve and invest the balance in interest earning assets while maintaining the obligation to redeem all bank notes and demand deposits upon demand. The problem is, by only keeping a fraction of reserves available, should customers fear for the safety of their "money" at the bank they could all withdraw their cash on mass. This is what we have seen in spades this last year.

It might be more relevant to refer to modern day banking as the *Fractious Banking Reserve System* – *"unpredictably difficult in operation; likely to be troublesome" or "stubbornly resistant".* The Webster dictionary aptly describes it thus. It's been very TROUBLESOME to say the least.

Casino Credit

Excessive credit leads to dislocation of production & misallocation of capital.

Money & credit is no more than a convenient means to facilitate and register the productive effort of an exchange of goods and services *required* between entities.

Unfortunately modern day banking (both the Central & Shadow banking system) has facilitated too much 'easy' credit for products entities ultimately don't need. This unproductive vendor finance was most notably exemplified at the macro level by the China/ US relationship and at the micro level by the subprime borrower & the mortgage provider.

Easier credit availability sourced by new sources of collateral (reads – "securitisation proliferation") and lengthened repayment schedules has lead to the production of goods underpinned by effectively less cash, and higher debt (backed by spurious collateral).

We have created an illusion of wealth, goods and asset prices that have so been so distorted by this misallocation of capital that "price discovery" is nigh on impossible, especially when Governments are trying to mitigate the collapse in prices with yet more debt both securitised and government issued. They are effectively going to be financing the inflated prices that should never have arisen initially.

We discussed last month Minsky's theory –

He explained how the bullish rise in employment, investment, and profits tends to confirm in the minds of business leaders and banker, the soundness of an approach that ultimately fosters volatility and unacceptable risk. Or put another way, in an investment boom, profits would be increasing along with investment. This added credence to his proposition that the fundamental instability in the capitalist economy (as it stands) increases until it reaches a speculative frenzy. He cautioned against *balance sheet engineering.* Think ENRON or the UK government's banking insurance program aka off balance sheet hocus pocus.

Unequivocally the world's "wealth" surmounts to no more than one "helluva" giant ponzi finance scheme. Individuals, corporates and governments a like have effectively just gone all in for Casino credit – the use of increasing liabilities (debt) solely for the purpose of speculating in other related liabilities – gambling with leverage to invest in more leveraged assets. The collapse in assets triggered by the seemingly incidental or trivial event of a few subprime individuals defaulting has exposed the world as built on a deck of cards. No one has been immune. The self-reinforcing nature of this collapse in assets and contraction in casino credit has been in '*HindeSight' inevitable.*

But if the fractional reserve system is at the root of all this evil, how can the Central Banks fulfil their role as Lender of last resort. When they have encouraged a relaxation of lending practises, financial oversight and their system of banking is inherently inflationary; how can they fulfil their role of "provider of stability"- a somewhat risible and laughable concept, as the populace is beginning to see. Well they undertake a practise they already perform daily - creation of yet more money out of thin air.

Lender of FIRST resort

If the Central Banks started this crisis in their traditional guise as lenders of last resort, it has both proved so deep-rooted and their own efforts have been so damagingly counter-productive, that they are on the verge of becoming the lenders of FIRST – and, indeed, ***only*** *– resort in consequence*

Diapason Commodities Management – Sean Corrigan

The lender of last resort in theory serves to protect depositors, prevent widespread panic withdrawal, and otherwise avoid damage to the economy caused by the collapse of an institution, which may result from a systematic chain reaction of defaults brought about by this institutions collapse.

However at some point the build up of excessive debt can only be rectified by the Central Banks underwriting all old and new credit.

It has dawned on the central bankers that the credit crunch is increasingly manifesting itself into an event they believe is akin to the Great Depression of the 1930's. Obsessively they examine the events of a unique period in history, when the Wall Street Crash of 1929 led to a catastrophic economic slump worldwide. Overlooking the expansive and monetary policy of the roaring twenties which led to the crisis; they instead focus on what they perceived as a delayed response of Friedamite monetary injections and Keynesian Kraft as prolonging the slump. So faced now with what they perceive to be intensifying deflation and deflationary expectations central bankers have been engaged in a race to a zero interest rate policy (ZIRP).

There is nothing like the synchronised meltdown of global stock markets (sorry I mean double digit unemployment), that has wiped out $35 trillionish of (*illusionary*) wealth, to engage monetary authorities. Oh, I forgot plus over 10 trillion of real estate losses.

When your rates get to the zero bound and government is all 'tapped out', the central bankers have (in their eyes) to resort to the *Weapon of Last Resort* – Quantitative Easing, also know as Debt Monetisation (or the inflationary financing of the fiscal deficits).

Indeed it has been used for all sorts of governments that need to finance some expenditure but can neither collect taxes nor borrow - ***The Governor and Company of the Bank of England*** – being a notable first example!

Let's Play Monopoly?

Quantitative Easing or "Printing Money"? as has become the fashionable colloquialism – surely this has must have some merits. It can't just be monopoly money? i.e. once the game ends, it's worthless. Well quite a few central bankers believe it is worthwhile. The man charged with control over the world's reserve currency certainly believes so. Fed Chairman Ben Bernanke has rolled the monopoly die and landed on take a "Chance" card as espoused in his now infamous (and apologies over quoted) speech:

Remarks by Governor Ben S. Bernanke

Before the National Economists Club, Washington, D.C.
November 21, 2002

Deflation: Making Sure "It" Doesn't Happen Here

http://www.federalreserve.gov/boardDocs/speeches/2002/20021121/default.htm#f18

In this speech, he mentioned that the government in a fiat money system owns the physical means of creating money. Control of the means of production for money implies that the government can always avoid deflation by simply issuing more money. (He referred to a statement made by Milton Friedman about using a "helicopter drop" of money into the economy to fight deflation.) Bernanke's critics have since referred to him as "Helicopter Ben" or to his "helicopter printing press." In a footnote to his speech, Bernanke noted that "people know that inflation erodes the real value of the government's debt and, therefore, that it is in the interest of the government to create some inflation."

The conclusion that deflation is always reversible under a fiat money system follows from basic economic reasoning. A little parable may prove useful: Today an ounce of gold sells for $300, more or less. Now suppose that a modern alchemist solves his subject's oldest problem by finding a way to produce unlimited amounts of new gold at essentially no cost. Moreover, his invention is widely publicized and scientifically verified, and he announces his intention to begin massive production of gold within days. What would happen to the price of gold? Presumably, the potentially unlimited supply of cheap gold would cause the market price of gold to plummet. Indeed, if the market for gold is to any degree efficient, the price of gold would collapse immediately after the announcement of the invention, before the alchemist had produced and marketed a single ounce of yellow metal.

*What has this got to do with monetary policy? Like gold, U.S. dollars have value only to the extent that they are strictly limited in supply. But the U.S. government has a technology, called **a printing press (or, today, its electronic equivalent)**, that allows it to produce as many U.S. dollars as it wishes at essentially no cost. By increasing the number of U.S. dollars in circulation, or even by credibly threatening to do so, the U.S. government can also reduce the value of a dollar in terms of goods and services, which is equivalent to raising the prices in dollars of those goods and services. We conclude that, under a paper-money system, a determined government can always generate higher spending and hence positive inflation.*

*Each of the policy options I have discussed so far involves the Fed's acting on its own. In practice, the effectiveness of anti-deflation policy could be significantly enhanced by cooperation between the monetary and fiscal authorities. A broad-based tax cut, for example, accommodated by a program of open-market purchases to alleviate any tendency for interest rates to increase, would almost certainly be an effective stimulant to consumption and hence to prices. Even if households decided not to increase consumption but instead re-balanced their portfolios by using their extra cash to acquire real and financial assets, the resulting increase in asset values would lower the cost of capital and improve the balance sheet positions of potential borrowers. A money-financed tax cut is essentially equivalent to **Milton Friedman's famous "helicopter drop" of money.***

Get Out of Hell Free - "Buy Bonds & Give Cash" to Joe the Plumber (who by the way is still reeling from his internet stock losses whilst day trading in 2000-01).

However to play at Monopoly money the best way to try and win is collaborate with another player and gang up on the rest. Cue the US Treasury, who has landed right on the "Community Chest" card.

Everyone Must Donate 100% of His Holdings to You in Cash FOREVER

T.A.L.F Taxpayers At a Loss Forever. The subject of fiscal stimulus (another form of monetisation I will address in another Insightful Interlude.

Rather fittingly, here are some of the original Chance and Community Chest cards from the "real" game -

We're Off the Gold Standard, Collect $50 (1935-1936 only, now omitted)

Receive interest on 7% preference shares: £25 (1935 UK edition)

Rather pertinent – We're off the Gold Standard so we can print lots of money and give it to you and all your friends. Or if I am the Treasury, gosh I won't let the bondholders pay for the bank mess I help create; I will just join them and issue 9% preference shares and take all the bank's good assets and give the bad assets to little old Joe.

Quantitative or Quality Easing?

Let's rewind a step. What is QE?

Traditionally quantitative easing is known as the method of boosting the money supply in order to get money flowing around an economy when the normal targeting of interest rates isn't effective – most obviously when interest rates are so low that it's impossible to cut them further. At this point, the central bank starts to engage in policies that go beyond targeting short rates to targeting other parts of the credit mechanism, thereby injecting more liquidity than an interest rate targeting policy would require.

In such a situation, it may still be possible to increase the "quantity" of money. The way to do this is for the central bank to buy assets in exchange for money. In theory, any assets can be bought from anybody. In practice, the focus of quantitative easing is on buying securities (like government debt, mortgage-backed securities, corporate debt or even equities) from banks.

QE is employed for a number of potential reasons -

1. *To re-engage the credit mechanism -* by encouraging lending, i.e. get the banks to lend out the extra "cash" deposits they get, e.g. watch for UK M4 lending to rise?! It should be preferable for commercial banks to not park their excess reserves at the central bank in return for low interest when they could earn a higher fee by lending - (perhaps without fear of default, now that all assets are being monetised). In theory liquidity has been restored but not necessarily the fear of heightened solvency risk.

2. *To raise Money Supply -* money held by the sellers/vendors of the assets increases and this might influence their behaviour to invest it/ lend it or spend it. It clearly depends on who the vendor is. For example if the seller is a pension fund (maybe even a gilt fund) it is highly unlikely they would take the cash received (essentially from a cash like instrument like a 2yr gilt) and buy commercial property or equity. In truth the actuaries would have to calculate that their future liabilities would not be best served by such low gilt yields (irony of irony!).

To date most of the gilt sellers have been the primary dealers and overseas investors. Brilliant.

3. *To drive down government bond yields –* Sufficient sizeable purchases to increase the money supply could lower government yields. But for how long when you are issuing new bonds almost daily and relying primarily on overseas creditors (e.g. UK and USA). Certainly this is cheaper funding for the Treasury, but for how long?

To date bond yields after an initial fall have risen back to the pre-QE announcement yields. Better step it up boys.

4. *To directly lower the cost of corporate borrowing –* By purchasing corporate bonds and commercial paper, liquidity should be enhanced, and confidence that debt can be raised (all be it by public sector assistance), restored. It also transfers risk form the private sector to the public sector. Such unconventional practises can severely undermine the creditworthiness and liquidity provision of a central bank. This is known as qualitative easing; we would argue both are just a form of QUALITY easing – the paper printed is of lower quality than productively grown currency and assets held at the CB are of lower quality.

"Quality not quantity isn't that what the Old Lady always says!" (She lied) –

Before the announcement the BofE had stated it was wary of taking on extra risk by buying corporate credit outright, and Mr King stressed that the Bank would only buy assets that played a key role in the financial system and for which there would be strong demand in normal conditions.

There is a fine dividing line between helping to oil the wheels in markets that are temporarily impaired and artificially supporting markets in which there is no underlying demand," the Governor said. "Such asset purchases involve taking more credit risk on to the public sector balance sheet. That is why the Bank will consider purchasing only high-quality assets.

But on March 5th 2009: What did they do? They bought all sorts of bonds; government bonds, corporate bonds, James Bonds (all of them), even 'friggin' premium bonds if they could have got hold of them.

News Release from Bank of England - Reduces Bank Rate by 0.5 Percentage Points to 0.5% and Announces £75 Billion Asset Purchase Programme

*In order to meet the MPC's objective for total asset purchases, the Bank will also buy medium- and long-maturity conventional gilts in the secondary market, **financed by central bank reserves**. Gilt purchases will be undertaken as part of the implementation of monetary policy by Bank of England Asset Purchase Facility Fund Limited ("the Fund"), which is a wholly-owned subsidiary of the Bank and will be the legal counterpart to market transactions. The Bank acts as agent for the Fund.*

*Purchases of private sector debt in the Asset Purchase Facility (APF) will continue as described in the Bank's Market Notice of 6 February 2009. With effect from Friday 6 March, purchases of private sector debt in the APF will be **financed by central bank reserves**, rather than by the* *issuance of Treasury bills by the Debt Management Office (DMO). Existing financing of private sector assets by Treasury bills will mature as the assets currently being financed by those bills mature.*

http://www.bankofengland.co.uk/markets/marketnotice090305.pdf

The BofE embarked on two forms of "printing money" quantitative easing and *qualitative* easing. In the first case outlined above "*In order to meet the MPC's objective…"* the BofE and UK Treasury have instigated unsterilized purchases of gilts (i.e. no issuance of short-term bills to finance the purchases). These purchases are known as 'open market purchases'.

In the second they have instigated purchases of private sector assets, namely commercial paper and corporate bonds. This is known as qualitative easing as it is about targeting specific assets or element of the private sector rather than just a general increase in the quantity of money. Why do this?

Rates on company or *corporate bonds* are important because they determine whether companies can afford to borrow to invest, to pay wages or to manage cash flow. They determine whether entrepreneurs can take risks - and invest. If they can't do any of these things they declare bankruptcy, and lay off their employees.

But most important of all the higher the interest rates the less likely they can afford to repay the huge debts dumped on them by lenders, (probably by the so-called 'private equity' companies and other financial institutions during the inflation of the credit bubble.)

They are specifically trying to drive down corporate borrowing rates. As many corporate bonds are priced off government benchmarks e.g. a 10yr Motorola bond spread over a 10yr government bond, by purchasing the government bonds the central banks hope to drive the overall cost of borrowing down as well. Investors may drive yields lower on corporate bonds when faced with a less attractive government bond yield. As long as the central banks keep buying or target a specific long end rate – it has a chance.

Question, Please!!

Where, one might ask, does the central bank get the money to buy all these securities? The answer is that it just waves *Mandrake's* wand and creates it. It doesn't even need to turn on the printing presses. It simply increases the size of banks' accounts at the central bank. These accounts held by ordinary banks at the central bank go by the name of "reserves". All banks have to hold some reserves at the central bank. But when there is quantitative easing, they build up "excess reserves"

Take the BofE -

Unlike the Asset Purchase Facility already in operation these asset purchases won't be funded by the issuance of Treasury securities (bills); which effectively withdraws money from the economy, offsetting the injection of money from the purchase of assets.

The BofE will buy the assets in exchange for, effectively, a cheque from the BofE (an accounting procedure).

The seller (bank or non-bank) of the asset then deposits the cheque at its own bank which results in that amount being added to the commercial bank's reserves at the Bank of England.

The seller of the asset has less of one type of asset e.g. gilts or corporate bond and more cash. The commercial bank has more deposit liabilities (in this case held at the BofE). Thus the BofE has increased liabilities in the form of commercial bank reserves and increased assets in the form of the securities purchased.

This money has been created and with it the *base* ("high powered") money has been increased.

http://www.bankofengland.co.uk/markets/marketnotice090206.pdf

Base Money is notes and coins in circulation in the economy plus reserves held by the central bank on behalf of the commercial banks. The unsterilized asset purchases discussed above increase base money by increasing reserves held at the central bank. Base money is known as M0 (although it is no longer a published series each component that comprises is recorded).

If banks swap their securities for reserves, the size of their own balance sheets shrinks just as the central bank's balance sheet expands (balloons). Assuming they want to keep their own balance sheets static – admittedly a big assumption in the current climate – they will then start lending to end-borrowers and so start putting more liquidity into the economy.

If purchases also occur from non-banks it is highly likely this money will find itself into higher sterling bank balances with commercial banks. So M4 is also increased.

M4 is the UK's broad measure of money. It is comprised mainly of UK private sector (other than banks and building societies) - namely other monetary financial institutions (MFIs) holdings of notes/coins and deposits.

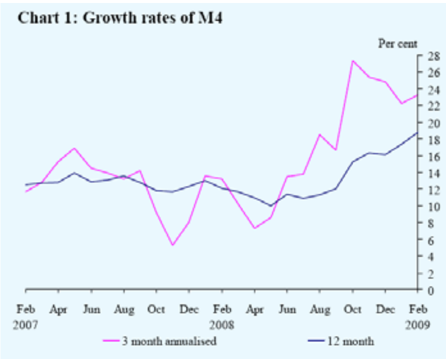
It also includes 'other financial institutions' (notably bank business between itself and a securitisation SPV.

Bank of England Statistical Release February 09

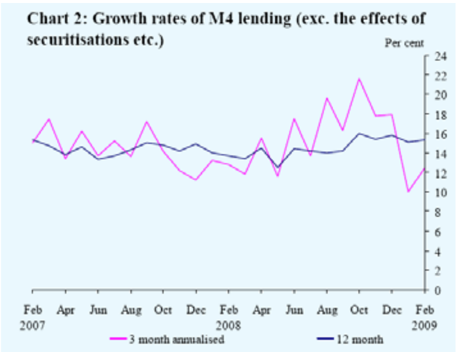
M4 rose by £28.8 billion, below the average flow for the previous six months of £34.8 billion. The twelve-month growth rate rose to 18.8% from 17.4% in January.

M4 lending increased by £21.7 billion or 0.9% in February. The twelve-month growth rate was unchanged, at 12.0% (January's figure was revised up from 11.9% in the January sectoral release).

M4 lending (excluding the effects of securitisations etc.) increased by £28.0 billion or 1.0% in February. The twelve month growth rate rose to 15.3% from 15.1% in January.



Impressive rise, even without instigation of QE.



What they hope to improve is M4 lending.

To a GREATER extent, central banks have been engaging in quantitative easing for the past year. Indeed forever – via the 'fractious' reserve banking system. The Fed, for example, has had a range of programmes and ad hoc initiatives that have resulted in it acquiring securities from the banking system and more recently from the US government. The Fed may not have justified these under the rubric of quantitative easing. But its balance sheet has certainly mushroomed: it is up 18-fold in the past 4 months to $820bn.

The rationale is clearly to reflate the economy and classical economists would argue with sufficient slack in the economy, encouraging higher nominal spending will not close the output gap sufficiently to raise the spectre of inflation in a pernicious way. Although the Austrians strongly argue that targeting reflation at specific sectors and asset classes will actually lead to a rise in inflationary pressures where you least expect it; e.g. goods inflation. See the Cantillon Effect below.

Game of Twister Anyone?

But why instigate it now? Well the US central banker answer was articulated in the March 18th 2009 FOMC statement;

Information received since the Federal Open Market Committee met in January indicates that the economy continues to contract. Job losses, declining equity and housing wealth, and tight credit conditions have weighed on consumer sentiment and spending. Weaker sales prospects and difficulties in obtaining credit have led businesses to cut back on inventories and fixed investment. U.S. exports have slumped as a number of major trading partners have also fallen into recession. Although the near-term economic outlook is weak, the Committee anticipates that policy actions to stabilize financial markets and institutions, together with fiscal and monetary stimulus, will contribute to a gradual resumption of sustainable economic growth.

In light of increasing economic slack here and abroad, the Committee expects that inflation will remain subdued. Moreover, the Committee sees some risk that inflation could persist for a time below rates that best foster economic growth and price stability in the longer term.

Reads – We are deeply concerned about deflation and will not let this happen. So…

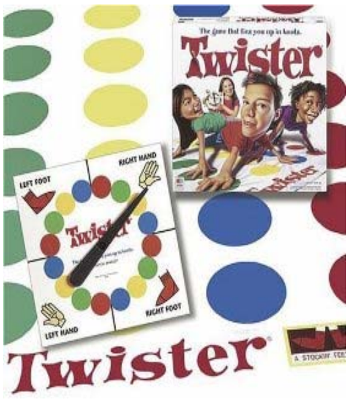
In these circumstances, the Federal Reserve will employ all available tools to promote economic recovery and to preserve price stability. The Committee will maintain the target range for the federal funds rate at 0 to 1/4 percent and anticipates that economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period. To provide greater support to mortgage lending and housing markets, the Committee decided today to increase the size of the Federal Reserve's balance sheet further by purchasing up to an additional $750 billion of agency mortgage-backed securities, bringing its total purchases of these securities to up to $1.25 trillion this year, and to increase its purchases of agency debt this year by up to $100 billion to a total of up to $200 billion. Moreover, to help improve conditions in private credit markets, the Committee decided to purchase up to $300 billion of longer-term Treasury securities over the next six months.

The last time the Fed and US Treasury targeted a program of purchasing long-dated treasury paper was under the codename Operation Twist and ran from 1961 to 1965. In this joint initiative they attempted to narrow the gap in yields between the short and long term debt. They quite literally sold front end bills to buy long term bonds; effectively sterilising the impact. In Bernanke's own words he considered this a poor comparison to his intended unconventional policies.

An episode apparently less favorable to the view that the Fed can manipulate Treasury yields was the so-called Operation Twist of the 1960s, during which an attempt was made to raise short-term yields and lower long-term yields simultaneously by selling at the short end and buying at the long end. Academic opinion on the effectiveness of Operation Twist is divided. In any case, this episode was rather small in scale, did not involve explicit announcement of target rates, and occurred when interest rates were not close to zero.

Ben Bernanke 2002

Probably the most striking episode of bond-price pegging occurred during the years before the Federal Reserve-Treasury Accord of 1951; but interestingly *the rate-pegging policy finally collapsed because the money creation associated with buying Treasury securities was generating inflationary pressures*. Of course, in a deflationary situation, generating inflationary pressure is precisely what the policy is trying to accomplish.



Game of Twister? Operation Twist 1961-65

Irving's (Bad) Debts Paradox & the Money Illusion

Clearly one argument is Money and debt is being destroyed. Some call it de-leveraging. Others call it debt write-offs, or debt cancellation. Bankruptcies invariably involve debt destruction - because bankrupts do not pay back their debts, so they get written off. The point is that money/debt is being destroyed in vast uncountable quantities.

What the Bank of England and other central banks are concerned to do is to replace the debt being destroyed, with new money. The trouble is, that the amount of debt being destroyed is so vast, that to replace it would require even vaster injections of new money. Right now, the central banks and Treasuries are just not keeping up with the amount of debt being destroyed. Indeed they do not even know how to count it, or assess the amounts outstanding.

It is thought that as long as CBs can't ascertain the amount of debt actually held authorities will we not have even the remotest threat of inflation. (A notion we refute.) Instead we will be faced by a far worse fate: a sustained and destructive debt-deflationary spiral - Irving Fisher's Debts.

Professor Irving Fisher (1867-1947)

Born February 1867 a US citizen Fisher is probably best known for his works on the Phillips Curve, the variant of the 'Quantity theory of money' $MV=PT$, the Money Illusion, but more recently for his *Debt-Deflation theory of Great Depressions, Econometrica, 1933.*

http://fraser.stlouisfed.org/docs/meltzer/fisdeb33.pdf

Unfortunately this piece of work was given scant regard at the time of the Great Depression as he had become known as a great advocate for higher stock prices just before the Stock Market Crash commenced on October 24th, 1929.

Stock prices have reached what looks like a permanently high plateau…The market is only shaking out of the lunatic fringe…

Irving Fisher, October 21, 1929

He went on to explain why he felt the prices still had not caught up with their real value and should go much higher. On Wednesday, October 23, he announced in a banker's meeting "*security values in most instances were not inflated*." These words, as you would imagine, did untold damage to his reputation and his wealth (he lost most of it. Even the money earned form his invention – the rolodex – as it later became known).

In reaction to his misery and desire to understand, he formulated what is arguably a seminal piece of work on debt deflation, although in his own introductory words he writes of his theory

..Its quite tentative (and) it may serve as a challenge to others and as raw material to help them work out a better product.

Tentative it may be, but it gives a great insight to the how indebtedness manifests itself into a collapse in "asset" prices (I emphasise "asset" as distinct from goods prices) and the debts grow.

Hyman Minsky (and James Tobin) credited Fisher's Debt-Deflation Theory as a crucial precursor of their theories of macroeconomic financial instability.

In Fisher's own words –

The following table of our nine factors, occurring and recurring (together with distress selling), gives a fairly typical, though still in adequate, picture of the cross-currents of a depression in the approximate order in which it is believed they usually occur.

I. (7) Mild *Gloom* and Shock to *Confidence*
(8) Slightly *Reduced Velocity* of Circulation
(1) Debt *Liquidation*

II. (9) *Money Interest* on Safe Loans Falls
(9) But Money Interest on Unsafe Loans Rises

III. (2) *Distress Selling*
(7) More Gloom
(3) *Fall in Security Prices*
(1) More Liquidation
(3) *Fall in Commodity Prices*

IV. (9) *Real Interest Rises;* REAL DEBTS INCREASE
(7) More Pessimism and Distrust
(1) More Liquidation
(2) More Distress Selling
(8) More Reduction in Velocity

V. (2) More Distress Selling
(2) *Contraction of Deposit Currency*
(3) Further Dollar Enlargement

VI. (4) *Reduction in Net Worth*
(4) Increase in *Bankruptcies*
(7) More Pessimism and Distrust
(8) More Slowing in Velocity
(1) More Liquidation

VII. (5) *Decrease in Profits*
(5) *Increase in Losses*
(7) Increase in Pessimism
(8) Slower Velocity
(1) More Liquidation
(6) *Reduction in Volume of Stock Trading*

VIII. (6) *Decrease in Construction*
(6) *Reduction in Output*
(6) *Reduction in Trade*
(6) *Unemployment*
(7) More Pessimism

IX. (8) *Hoarding*

X. (8) *Runs on Banks*
(8) *Banks Curtailing Loans* for Self-Protection
(8) *Banks Selling Investments*
(8) *Bank Failures*
(7) Distrust Grows
(8) More Hoarding
(1) More Liquidation
(2) More Distress Selling
(3) Further Dollar Enlargement

Each dollar of debt still unpaid becomes a bigger dollar, and if the over-indebtedness with which we started was great enough, the liquidation of debts cannot keep up with the fall of prices it causes.

For example I see the value of home fall from $1mm purchase price. I borrowed 80% ($800,000) to purchase it. I lose my job. I cannot service my mortgage. I wait to sell house. Hey it's still worth $900,000. The economy will recover. It doesn't. I decide to sell. House is worth $750,000. I manage to sell out at $600,000. I'm desperate. I owe $800,000. But I am short by $200,000. My debt has in effect swelled by $200,000 more than I expected. In other words it has grown to 125%. I need more dollars. I don't have them. I default. The bank is now short of dollars, the ones I owe. They call in more loans to meet their dollar needs. Demand for money rises over goods and assets. Prices continue to fall, so debts get larger. Dollar demand swells. Here in lies the **great paradox** of all great depressions: *The more the debtors pay, the more they owe - Irving Fisher, 1933.*

http://market-ticker.org/archives/925-Ticking-Financial-Nukes-OTC-Derivatives.html

(Debt derivative time bomb)

Ben Bernanke is fully aware of Fisher's work and he is also very much aware of his conclusion -

Finally, I would emphasise the important corollary, of the debt-deflation theory, that great depressions are curable and preventable through reflation and stabilisation -

Unfortunately this is not a conclusion we would share. Excessive monetary reflation is hard to control once instigated and misdirected fiscal stimulus and printing money can lead to prolonged malaise in once over booming (yet unproductive) assets, but accompanied with a rise in prices in unexpected and unwanted places.

However we do agree with Fisher's belief that investors and savers—people in general—were afflicted in varying degrees by "***money illusion***"; they could not see past the money to the goods the money could buy. In an ideal world, changes in the price level would have no effect on production or employment. In the actual world with money illusion, inflation (and deflation) did serious harm.

Cantillon and (Helicopter Effect)

Why QE could be ineffective and misdirected?

To answer this question it is perhaps worthwhile observing what determines the price of money?

"Supply and demand" - the same forces that determines all prices on the market. If the supply of bread increases, the price will fall and vice versa. Likewise if the supply of money rises, it will tend to lower its "price"; an increase in the demand for money will raise it.

Lets put this another way. If people value cash (or their cash balances) more highly, the demand for money increases, and prices fall. The same total sum of cash now confers a higher 'real' balance, i.e. it is higher in proportion to the prices of goods – to the work that money has to perform. In short, the *effective* cash balances of the public have increased. Conversely, a fall in the demand for cash will cause increased spending and higher prices. The public's desire for lower effective cash balances will be satisfied by the necessity for a given total cash to perform more work.

If asked, most people will say I want more money, as much as they can get. However what they really want, are more effective units of money (higher purchasing power). They want a greater command of goods and services for same amount of money.

So it goes to show if you increase the supply of money, you dilute its purchasing power. Whilst we see that any increase in supply of any good or money lowers it price, the increase offers no social value whatsoever. Initially we may feel rich as we have 'more money', but as we rush out and spend our surplus money, prices will rise. The last person to spend will be worse off. A sad reality of the recent asset inflation we have experienced. The profligate gain at the expense of the cautious and thrifty. Just like a *counterfeiter,* whether it is the government or an individual introducing more money into the economy, the first to benefit are the counterfeiters, (whilst prices are still low.) Yes, if the government increases supply, they will benefit first.

Counterfeiting is fraud. It provides no social good other than to the perpetrator of the 'crime'. Take the recent gang of octogenarians who printed £5mm of fake pounds; they got jail time. Two centuries ago they would have been hung drawn and quartered. Government cannot have individuals usurp the control of money from them, as it would undermine the 'common' good.

If we experience a change in the demand for cash balances by a rise in new consumer or capital goods, the effectiveness of the same amount of money rises and our standard of living increases. Now, this is a social benefit to us all.

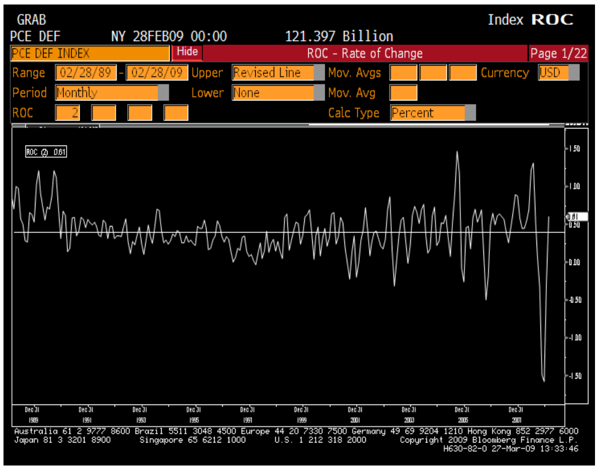
Money is unique, unlike goods which have a utility value; money is not consumed but just used as a means of facilitating a transfer of value. It is merely transferred from one person to the next. So it would be fair to say any level of money supply will be just as good as any other. We need never change the supply of money. But if we do, we cannot necessarily control where price increases manifest themselves. This we call the Cantillon Effect.

Richard Cantillon was considered by Rothbard to be the "father of modern economics". A Gallicized Irish merchant, banker and adventurer who wrote the first treatise on economics more than four decades before the publication of Adam Smith's (1723-90) Wealth of Nations. Richard Cantillon's *Essai sur La Nature du Commerce en General* was scribed in early 1700s. His work includes the first known source of the word *entrepreneur* (French for undertakers). To Cantillon, they were the risk takers, who in pursuit of profit, allocated resources based upon market demand. They were the price discoverers in an uncertain market place. They helped bring about competition and decentralisation of the markets through the application of decision making. They were the free market that Austrians so espouse.

His most formidable work was on explaining monetary theory, money, its circulation, market prices, hard money and how changes in these influenced prices in a market economy. He understood the mercantilist ambitions of the merchants and bankers and how they created excessive credit to purloin cheap goods at expense of the masses. He understood it and most notably profited form it – John Law's fiat paper driven South Sea bubble.

Cantillon had argued that the result of an increase in the stock of money will not be uniform across the economy, but rather will cause prices to rise at uneven rates in different sectors, thereby changing relative prices in the process. Mises combined the marginal-utility theory of money with this "Cantillon effect" to elucidate the impact of changes in the supply of money.

In modern societies, when governments or central banks increase the supply of money, they do not do so in a way that affects everyone equally. Instead, new money is created by the government or by banks to be spent on specific goods and services. The demand for these specific goods rises, thereby raising their prices first. In a Misesian economy as money holdings increase, the marginal utility of money declines so that certain goods are revalued ahead of money on subjective preference scales, pushing the prices of these goods upward.) Gradually the new money ripples through the economy, raising demand and prices as it goes. Income and wealth are thereby redistributed to those who receive the new money early in the process, at the expense of those who receive the new money later, or those who live on fixed incomes and receive none of the new money.



PCE Deflator Index Rate Of Change- Wooosh!!
Maybe it's already beginning to work.
(Sean Corrigan Diapason Commodities)

Milton Friedman also concurred that one special feature of money, is that its usefulness to the community as a whole does not depend on how much money there is. For almost all goods and services, the utility derived from them depends on their physical quantity, on the number of units. For money it does not.

When gold ruled the monetary roost, there was much talk about whether there would be enough gold to serve as monetary reserves. That was the wrong question. In principle, one ounce would be enough. It would not physically circulate, as most gold did not, but claims to it could be issued in fractional denominations, that were convenient.

Money Mischief, Friedman

To explain this concept Friedman used the analogy of a **Helicopter** dropping money from the skies, straight onto the community. The drop doubles the amount of money in circulation. The money is collected, of course, but will it be spent? Assuming the community has a static amount saved say 5 weeks worth; they now have 10 weeks worth. Prices would remain dormant. But human nature doesn't work like that. Having excess money than needed even for a rainy day, they will spend it. However, remember one person's expenditure is another's receipt. The sum of individual cash balances held is equal to the amount of cash available to be held.

Individuals as whole cannot 'spend' balances; they can only transfer them…in effect, they are playing a game of musical chairs.

So people's attempt to spend more than they will receive will be frustrated, but in the process these attempts will build up the nominal value of goods and services. So the money does not make any additional productive capacity available, rather nominal prices will have risen with precisely the same flow of goods and services as before.

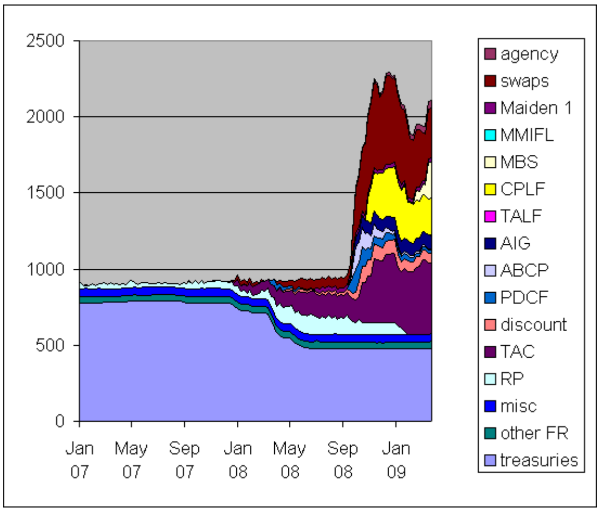
The transition mechanism is more complex, some producers will be slow to increase prices, some individuals will collect fewer amounts of money than others etc. This distribution effect is key in understanding the impact of the helicopter drop. Inflation would unlikely be instantaneous. Individuals either have too high a cash balance or too low a one.

QE is not a helicopter drop it's an **indirect drop** via a third party, usually a bank. The impact will not be immediate. If you continue to make drops (direct or not) the community will fully anticipate them and adjust cash balances down accordingly, (they know more money is coming). Now prices will rise very quickly.

The problem with QE is for it to have impact, they will have to sustain it. Although the authorities will not 'fess' up, they are really issuing just using the CBs to finance all the government bond issuances, i.e. a fiscal expansion financed by the central bank. No, No they will argue we are swapping one asset (e.g. gilts) for cash….ignore them.

Arguably though, the Fed and other CBs around the world have undertaken a form of helicopter drop as the Treasury has issued debt, the CBs have bought the debt and credited banks with cash in return for private assets on a rolling loan basis. This is otherwise known as 'credit easing'; in reality it's a direct form of distributing cash to specific asset classes or sectors.

Below is a graph of all the credit assets the Fed has taken onto its balance sheet in return for government bonds, in effect. So the Fed Balance Sheet has denigrated its balance sheet ($2tln plus QE = over $4tln) & "Liquidity" measures – read balance sheet degradation.



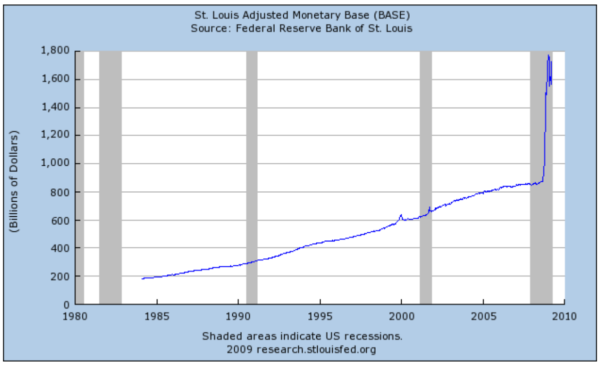
Assets of the Federal Reserve, in billions of dollars, seasonally unadjusted, from Jan 3, 2007 to March 25, 2009. Wednesday values, from Federal Reserve H41 release. Agency: federal agency debt securities held outright; swaps: central bank liquidity swaps; Maiden 1: net portfolio holdings of Maiden Lane LLC; MMIFL: net portfolio holdings of LLCs funded through the Money Market Investor Funding Facility; MBS: mortgage-backed securities held outright; CPLF: net portfolio holdings of LLCs funded through the Commercial Paper Funding Facility; TALF: loans extended through Term Asset-Backed Securities Loan Facility; AIG: sum of credit extended to American International Group, Inc. plus net portfolio holdings of Maiden Lane II and III; ABCP: loans extended to Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility; PDCF: loans extended to primary dealer and other broker-dealer credit; discount: sum of primary credit, secondary credit, and seasonal credit; TAC: term auction credit; RP: repurchase agreements; misc: sum of float, gold stock, special drawing rights certificate account, and Treasury currency outstanding; other FR: Other Federal Reserve assets; treasuries: U.S. Treasury securities held outright.

For a more detailed analysis of the Money Creation and the Fed balance sheet see James D Hamilton's excellent website -

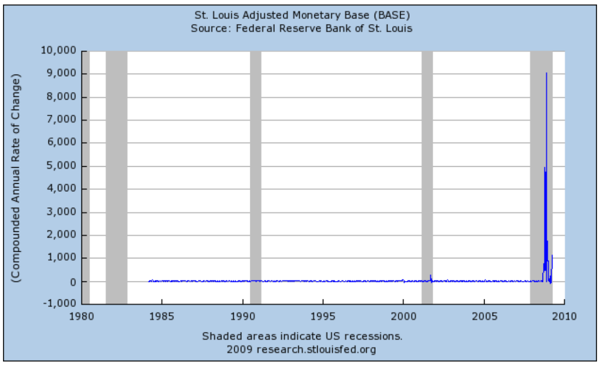
http://www.econbrowser.com/archives/2009/03/money_creation_1.html

Further evidence of the Fed's reflation efforts has been captured in the monetary base increases -

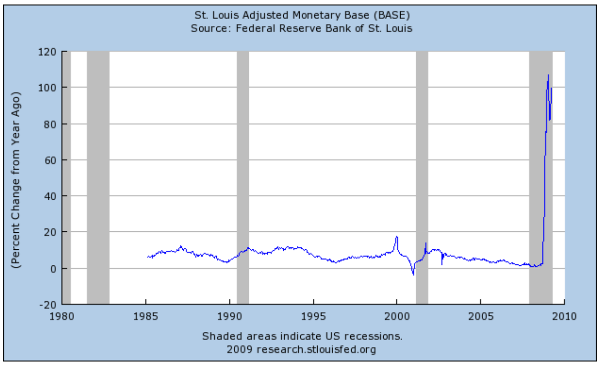
The monetary base is essentially the sum of (1) the currency that's been withdrawn from private banks and is being held by the public, (2) the currency that's sitting in the vaults of private banks that could potentially be withdrawn by the banks' customers if they wanted, and (3) banks' reserve deposits, which you could think of as electronic credits for currency that the banks could ask for from the Fed any time the banks choose. Historically, newly created reserve deposits have usually shown up pretty quickly as currency withdrawn by banks and then by the public. Choosing a pace at which to allow that supply of currency to grow so as to accommodate the increased currency demands from a growing economy without cultivating excessive inflation is one of the main responsibilities of the Fed.



1. Adjusted Monetary Base, (St. Louis Fed source)

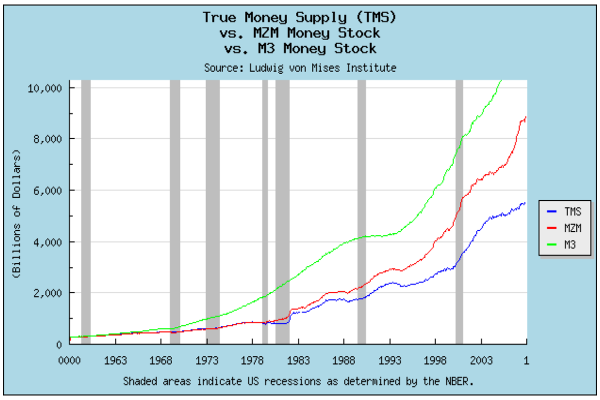


2. Rate of Change compounded annually of BASE



3. % Chg from 1yr ago BASE

TMS – True Money Supply vs. BASE vs. M3 (not calculated by Fed)



The True Money Supply (TMS) was formulated by Murray Rothbard and represents the amount of money in the economy that is available for **immediate use in exchange**. It has been referred to in the past as the Austrian Money Supply, the Rothbard Money Supply and the True Money Supply.

There is such heated debate over inflation vs. deflation. We want to reiterate our stance outlined in our Jan 2008 letter.

http://www.hindecapital.com/downloads/HindeGoldFundInvestorLetterJan2008.pdf

We perceive all reflationary efforts having little impact on sectors that saw overconsumption and over-speculation coupled with over-indebtedness, whilst we expect to see goods inflation and prices rises in sectors with limited stock. It will start out slowly as discussed but like a powder keg on a slow burning fuse once the flame ignites it could be explosive.

Pressing the "light switch" is easy, waiting for the white hot bulb to cool down so you can switch it to a low-wattage saver bulb takes time. Too early and you scold yourself badly.

Trying to drain excess liquidity and reserves from the system will be hard for all CBs, especially the FED. The FED is so ballooning its balance sheet that the larger and larger it gets the likelihood of being able to withdraw impaired illiquid and mostly insolvent assets from their balance sheet will prove impossible without raising long end rates dramatically. Besides which the credibility of the FED and US Treasury which are both insolvent (except for "printing") is so on the edge that the patience of America's external creditors (read China) is wearing very thin. No matter, the FED can still finance all the US debt; besides there are plenty of tax receipts due in…….!

This piece was intended to be just an INSIGHTFUL INTERLUDE on money creation (separate from the HindeSight Investor letters). We hope it provides some way of an explanation. Further discussion of the role of excess reserves and 'liquidity' programs will be addressed in hopefully another InSightful Interlude.

Panics do not destroy capital; they merely reveal the extent to which it has been previously destroyed by its betrayal into hopelessly unproductive works.

John Stuart Mill (Credit Cycles and the Origin of Commercial Panics 1867)

Epilogue:

Confessions of a 'London' (central) banker- Anonymous
I have been both a central banker and a market regulator. I now find myself questioning whether my early career, largely devoted to liberalising and deregulating banking and financial markets, was misguided.

In short, I wonder whether I contributed - along with countless others in regulation, banking, academia and politics - to a great misallocation of capital, distortion of markets and the impairment of the real economy.

We permitted the banks to betray capital into "hopelessly unproductive works", promoting their efforts with monetary laxity, regulatory forbearance and government tax incentives that marginalised investment in "productive works".

We permitted markets to become so fragmented by off-exchange trading and derivatives that they no longer perform the economically critical functions of capital/resource allocation and price discovery efficiently or transparently.

The results have been serial bubbles - debt-financed speculative frenzy in real estate, investments and commodities.

QEd

P.S. Other central banks embarked on "printing" money China/Japan/Canada/Australia/Europe. These are all via guise either of "credit easing" or quantative easing.

William Buiter provides excellent insight to European QE dilemma. He is pro-QE for Europe. However we would suggest as most debt is in dollars we would urge Europe not to embark on such a course of action.

http://blogs.ft.com/maverecon/2009/03/fiscal-dimensions-of-central-banking-the-fiscal-vacuum-at-the-heart-of-the-eurosystem-and-the-fiscal-abuse-by-and-of-the-fed/

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What is needed for a sound expansion of production is additional capital goods, not money or fiduciary media. The credit boom is built on the sands of banknotes and deposits. It must collapse.

Ludwig Von Mises