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People's Power: The Power of Money

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Introduction

Money can create jobs and thereby an income for individual households, but money is equally capable of destroying jobs and incomes. It is this dilemma, which should be at the heart of economic thinking.

The U.S and Europe have witnessed the destructive power of money ever since the end of 2006.

Individual households play the key role in this process. They are the ones who work in order to earn money, or are unemployed and do not have a chance to earn money. Individual households are the ones who are responsible for paying back their own debt: home mortgage debt, consumer durables debt and credit card debts. They -and they alone- are also responsible to pay back government debt.

Individual households are also the only households who can save in society- putting money aside out of incomes to be used for future consumption-. All accumulated savings belong to the individual households. They own it.

One would have thought that in civilised societies ownership would be respected. Regretfully when it comes to money, the rights to earn a living and the rights of ownership of savings seem to carry very little weight with governments, central banks, banks and international bureaucrats. Together they all decide what use should be made of the incomes and savings from individual households, often without even bothering to involve such households. It is not that they are not well intended, but results count and on that score the cooperation between these “money managers” has performed very poorly over the last six years.

What usually happens is that one group of managers’ blames the other groups. However such blame game does not solve the problems.

The crisis started with U.S banks lending -using households’ savings- in a manner which led to large loan losses on home mortgages. U.S investment banks multiplied the banking errors by selling these risks to fund providers around the world. The U.S and other investment banks also sold risk products -derivatives- which did not use funding of the underlying assets as an obligation, but could produce gains on other people’s losses. Individual households were not asked by the banks on whether they agreed to have the risks on their incomes to be sold on. Individual households were also not asked by the investment banks whether packaging such risks and making them tradable on a daily basis was a sound decision, as their incomes would never be able to accommodate early repayment of their mortgages. The subsequent liquidity crisis in 2008 spread the effects in the U.S from the 5.3 million of households who got into payment problems to all 132 million U.S households and far beyond. American households lost \$12.6 trillion from their savings in 2008 alone and up till to-day have been unable to earn this loss back out of incomes.

The reaction of individual households was not to save less, but rather to save more as well as differently. For about 75% of savings in the U.S, the motives for savings are practically insensitive to interest rates. The common reaction was to reduce debt on homes; continue to save for future pensions; increase the level of short term deposits and reduce the risks on the company sector by moving to government bonds.

On top of this the Fed, together with the Bank of England, the ECB and the Bank of Japan all thought that more credit rather than less would solve the economic problems. In the process they lowered the incomes for individual households. Again individual households were not asked, but they continued to carry the payment risks for a rapidly increasing government debt at reduced income levels.

This paper provides an analysis and suggests a number of possible solutions. It deals with possible causes of a money crisis; it deals with income generation out of jobs and income generation out of savings. It deals with the current crisis and finalises with suggestions on bank reform, on “quantitative strengthening” as opposed to QE and on “economic easing” as a method to give individual households temporary access to their own savings to help boost consumption levels. It starts and finishes with the power of the people -the individual households- over the power of money.

1. Money Crises

A money crisis never occurs due to individual households putting aside money to be used for future consumption. There is no way that savers can save too much. Savings -in theory- should help an economy grow more rapidly as the investments made with the help of such savings are supposed to make an economy more efficient.

Reality is different. Money crises can occur due to four different factors, of which three are linked with the management of banks, a central bank and a government. They are:

- A financial crisis can occur as a consequence of a commodity price related cash transfer from importing countries to commodity exporting countries. The oil crisis of 1973 was an example. The price setting of oil was and is manipulated by controlling oil output levels. Incomes were and are not spent in the local economy but transferred abroad. Also, in some extreme cases, a high dependency on imports, can lead to a currency crisis or a government bond liquidity crisis in case such bonds were issued in a foreign currency.
- A financial crisis can also occur as a result of ill-advised lending and risk transfer policies. The banking sector has moved away from the traditional direct banker-client relationship and loans held to maturity. The second banking phase became an indirect funder-client relationship in which funders finance the loans, do not know the clients and want instant tradability for their funding obligations. The final and most recent phase is that banks sell and buy risk products which do not require providing funding at all, but still place bets on the outcome of the risks' taking processes. The shift away from direct client relationships has de-humanised banking. The objective of banking was to use money -savings- for the benefit of individual households. The pendulum has swung to using individual household monies for the benefit of bankers and other financial services providers. Banks can collectively cause a crisis by excessive levels of lending or risk taking practices on clients who cannot afford to pay back their commitments. The indirect funder-client relationship can cause liquidity crises if investors want to get out of their funding commitments in a short period of time. Individual households, who carry the responsibility for paying back both mortgage obligations as well as government debt, do not have the financial resources to pay back such commitments instantly. Corporate bonds represent a single company's obligations and the company and its banks usually use clear cash flow projections, hence less chance for a liquidity crisis.
- A financial crisis can be enhanced by the actions of central banks. Central banks control two key elements in a society: Interest rates and money and financial market liquidity with the aim of maintaining the value of a currency -inflation targeting-. What the Fed, the ECB, the Bank of England and the Bank of Japan are all doing is to create money in order to provide liquidity to their respective economies -quantitative easing-. The question is: why is such liquidity needed as the individual households in, for instance, the U.S have a net worth of more than four times GDP, four times US government debt and twenty seven times US Federal Government annual tax revenues according to the 3rd quarter data 2012 provided by the Fed.¹ Could it be that financial markets have organised themselves in such a manner that risk trading of assets rather than holding debt till maturity has become an objective in itself?
- The financial crisis started in the U.S around October 2005 and especially from 2008 spread around the world. This crisis was not caused by the U.S government but by the U.S banking system. The causes of the current crisis had all to do with what banks did collectively. They caused the losses to individual households on house prices, to pension funds and mutual funds' assets; the latter two acting as fund managers on behalf of individual households. However, in some instances, governments, like the Greek one, did cause their own financial crisis by persistent excessive levels of borrowing rather than raising sufficient tax revenues.

¹ <http://www.federalreserve.gov/releases/z1/current/z1r-5.pdf>

1.1 Banking crises

Collectively banks can lend to their clients -governments, companies and individual households- amounts which exceed the pay back capacity of such clients. It is important to emphasize the concept of collective responsibility. Banks do not deal in products as defined by physical output products. They deal in risks contained in money flows or even in money risks without underlying money flows. A banking crisis is rarely the responsibility of a single bank, notwithstanding how big such a bank is relative to the total financial sector in a country. Major banks in the world also operate in many countries. Cross-border risk taking is very common and not only restricted to banks. Pension funds, mutual funds and other elements of the money sector buy risks at home and abroad. However, in nearly all countries the banking sector acts as the originator and distributor of money risks. Banks also receive all their funding directly or indirectly from individual households: Directly through individual deposit taking activities and individuals as shareholders; indirectly through pension funds, mutual funds, companies and other intermediaries.

It is very rare for lending risks to show up in the year that the risks are entered into. There is nearly always a time lag. It may be two years, three years or even longer before risks turn into doubtful debtors. The clear sign that excessive risks have been taken is when the money input- the savings amount- does not lead to a higher money output. It is natural that risk taking is accompanied by some loan losses, either on interest payments and/or on principal amounts. The collective risk taking process is an accumulator process. More risk taking can lead to higher banking profits, but more risks can also lead to higher loan losses and lower banking profits. In the latter case the savers -individual households- see the return over their savings reduced due to the loan losses made. This effect can be multiplied through the securitisation process of mortgage debt, corporate debt and government debt. Corporate bonds are usually closely linked to the cash flow forecasts for companies. Due to this close link such bonds are less likely to show a high level of defaults and in case of default usually the full amount of principal is not lost.

For mortgage debt and government debt individual households carry the ultimate responsibility to repay both types of debt. In case of securitisation of such debt, which happens for nearly all government debt, individual households do not have the capability to significantly speed up repayments out of their current income levels. Investors may wish for daily liquidity, but such wishes may turn out to be illusionary. If governments try to reduce government deficits by increasing taxes, the only way in which individual households can respond is to reduce spending on goods and services. In the case of mortgage debt, not only does the individual capacity to repay such debt matter, but also the collective debt volume level and the characteristics of such debt. It is not just one bank which causes a mortgage lending crisis but the collective of banks. If a mortgage lending crisis occurs, the recovery process takes a long time as the real estate markets have to absorb the volume of repossessed "second hand" homes. Not only do banks incur losses, but such losses are also spread to individual households with drops in home values, in the values of mutual funds, pension funds and other savings vehicles. Government expenditure is mainly regulated by law, which makes such expenditure inflexible and leads to larger budget deficits when the level of tax receipts decline or grow less fast. Lower tax incomes are the result of society experiencing job -income- losses and loan and value -savings- losses. Finally the process is further complicated by risk management techniques applied through the derivatives markets, among others interest rate swaps and credit default swaps. The latter techniques make it possible to split funding from risk taking on the principal amount -credit default swaps- and to split the risks on interest rate movements -the returns over principal amounts- between various market participants. The latest banking activities involve taking risks without funding such risks: synthetic derivatives. Individual households, in providing all savings to society, are the ultimate risk holders. It is their obligation to repay government and mortgage debt. Regretfully individual households collectively rarely play a role in the risk decision making processes.

1.2 Central Bank's actions

No one in the U.S. will suggest that individual households can repay outstanding Federal debt in anything less than say 40 or 50 years unless one wants to wreck the economy. Even an exact estimated period of repayment is difficult to provide. No U.S. government has committed itself to do so. However, why does an increased level of US government debt from \$7.6 trillion per the end of 2004 till \$16.37 trillion per end of November 2012 require such totally different interest rates? The implied 10 year US government bond yield

per end 2004 stood at 4.2% and was 1.72% as per 30th December 2012. With a doubling of government debt over this period, the long term interest rates are now less than half as what they were per end of 2004. Incomes for individual households are reduced -but the reverse is true for risks- just when such incomes are needed most: at times of economic hardship. Perhaps this is partly due to money creation (quantitative easing) and furthermore due to a shift to safety and a lack of viable alternative real sector investment opportunities. What is clear is that in 2004 a positive yield of about 1.7% over inflation was maintained, while currently inflation and yield level are practically at the same level. The current practice by all major central banks to provide liquidity to the bond markets is not guided by proper bank supervision guidelines, but by allowing banks to offload mortgage and government risks to the central banks. The risks stay however with the individual households.

1.3 Government debt crises

Governments can create a debt crisis if they, consistently, do not fund their own activities from tax incomes. Greece is a case in point. However in many other countries the government debt crisis was not caused by the governments themselves but by falling tax incomes as a consequence of recessionary periods caused, for instance, by either a commodity led crisis or a banking sector caused crisis. In Spain, for instance, the government debt crisis originated within the banking system, not by securitisation like in the U.S, but by banks funding the construction of 800 000 homes for which there are no buyers. Governments usually rule by the book of laws. In the case of transfer payments between the private sector and the beneficiaries of government laws -the unemployed, the retired and the infirm- it is worth investigating how the tax expenditure for these individuals and the taxes raised from the employed persons could be linked directly with one another. This avoids a major cause of borrowing.

2. Income generation: Jobs

In table 1 below the unemployment rates by age and gender are provided from 2006 till most recent date² for a number of selected countries:

Table 1: Unemployment rates by age and gender: 2006-2012 for selected countries.

Year	2006	2007	2008	2009	2010	2011	2012 Latest Data %
Country	%	%	%	%	%	%	%
USA	4.6	4.6	5.8	9.3	9.6	9.0	8.1
U.K	5.4	5.3	5.7	7.6	7.8	8.0	7.9
Germany	10.3	8.7	7.5	7.8	7.1	5.9	5.5
France	8.8	8.4	7.8	9.5	9.3	9.2	9.7
Greece	8.9	8.3	7.7	9.5	12.5	17.7	24.0
Italy	6.8	6.1	6.7	7.5	8.4	8.4	10.8
Spain	8.5	8.3	11.3	18.0	20.1	21.6	25.5
Portugal	7.7	8.1	7.7	9.6	10.8	12.7	15.8

² [http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Unemployment_rate,_2000-2011_\(%25\).png&filetimestamp=20120502100338](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Unemployment_rate,_2000-2011_(%25).png&filetimestamp=20120502100338)

From these statistics it is clear that the economic crisis is far from over. Apart from Germany all other countries show unemployment rates far above the 2006 levels. Whatever governments, central banks and the IMF have done, in one key area -unemployment levels-there can only be one conclusion: they have failed. If their economic analysis of the patients were wrong - current unemployment levels indicate that this is the case- than the medicine applied could well be the wrong medicine also. This is all the more striking if one focuses on youth unemployment rates over the same period and the same countries³.

**Table 2: Youth unemployment data for selected countries 2006-2012
(15-24 years)**

Year	2006	2007	2008	2009	2010	2011	2012
Country	%	%	%	%	%	%	Latest %
U.S.A	10.5	10.5	12.8	17.6	18.4	17.3	16.4
U.K.	13.8	14.2	14.1	19.0	19.3	20.0	21.9
Germany	13.6	11.7	10.4	11.0	9.7	8.5	7.9
France	21.6	19.1	18.6	23.2	22.9	22.1	21.8
Greece	25.2	22.9	22.1	25.8	32.9	44.4	51.2
Italy	21.6	20.3	21.3	25.4	27.9	29.1	35.9
Spain	17.9	18.2	24.6	37.9	41.6	46.4	51.1
Portugal	16.2	16.6	16.4	20.0	22.3	30.1	36.1

These figures do not show the full picture of youth unemployment levels as many more are NEET's: not in employment, education and training, but simultaneously not actively registered as job seekers.

Tables 1 and 2 clearly show that large sections of the labour force are unable to earn their own upkeep and thereby do not contribute to increasing demand levels in their respective economy and to the accumulated savings levels. The situation is made worse. Those in work need to pay higher taxes, both in the current period as well as in future. Governments justify such tax claims on laws, which of course their Parliaments have promulgated. Rather than drafting laws to justify spending, governments could consider to link elements of the tax income with government expenditure levels. Such an economic approach would balance tax income levels much more directly with government transfer payments. The legal approach increases the need for higher taxes on employed persons and reduces their disposable incomes. Such disposable income levels are the basis for potential borrowing levels for homes, durable consumer goods and for credit card spending levels as well as for servicing government debt levels.

³

http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Unemployment_statistics#Youth_unemployment_trends

3. Income generation: Savings

Individual savings -net worth- levels are well recorded in the United States⁴ and in the United Kingdom⁵. In the U.S. such data are produced on a quarterly basis, in the U.K. on an annual basis. For other countries data are available but are more fragmented and not presented in a systematic manner like in the U.S. In the latter figures, government debt has been included on the assets side as U.S individual households directly and indirectly funds all government debt -apart from the overseas held element- but on the liabilities side the obligations have not been included. Such debt has to be met out of future incomes, but governments usually do not make it clear how much of the principal amount has to be paid back and over which period. Hence the interest amounts are included in the annual government budget figures, but repayment obligations are not.

3.1 Income generation: supply and demand of savings

The key mistake economists and central bankers can make is to regard money as a product and thereby treat money as if there is a supply and demand and a price level, which guides the money and financial markets to an equilibrium position. Nothing is further from the truth.

Consider some of the elements of savings: home mortgages and pension fund savings. Under a 30 year fixed rate mortgage agreement an individual household does not have the option to discontinue his/her mortgage payments, in case the current 30 year mortgage rate becomes substantially lower than the one the household may have agreed upon five or ten years ago. If mortgage payments were to be discontinued the home would be repossessed and all or nearly all savings locked into the home would be lost for the individual household. Households are locked into their mortgage agreement and with it the applicable mortgage interest rate, notwithstanding what the prevailing interest rate of the day is. Only a very small proportion of individual households -the new entrants to the housing market- benefit from lower current mortgage rates. Variable mortgage rates expose individual households to interest rate movements and risks which will influence their disposable income levels once interest rates move up. Again individual households have no choice; they have to continue following such mortgage arrangements if they do not want to lose their home. The key factors determining demand for mortgages are the price levels of homes and the availability of jobs. The latter will determine the individual household's disposable income level after tax. Employment, inflation and tax rates determine the disposable income levels and unemployment levels the number of households which might or might not be eligible for home mortgages. Inflation can be caused by a number of factors most of which are not related to interest rates. Tax rates do not depend on the prevailing interest rate level. The price level of houses may be strongly influenced by bankers' errors as will be explained for the U.S.

Savings in homes - the amounts set aside to reduce the principal amount of the home loan outstanding- are insensitive to interest rate movements, once a fixed rate mortgage has been concluded. Savings on variable interest rates are subject to mortgage costs' interest fluctuations. However it is not the amount of saving which changes when interest rates move up, but it changes the interest payment amounts. With a variable interest rate mortgage, the effect of the combined amounts of interest and principal has a negative influence on disposable income levels. The latter levels do matter for economic growth levels. Less disposable income leads to lower levels of economic growth.

Interest rates also play no role in how much people save for their pension pot. Fixed amounts are set aside out of individual household's incomes to save for a pension, irrespective of what the prevailing interest rate level is.

In the U.S the combined level of savings incorporated in homes and pension fund reserves is \$21.8 trillion according to the most recent Fed figures. Savings in homes and savings for a pension, which together constitute 33.6% of total households' savings input, are to a very large degree not guided by interest rate movements.

⁴ <http://www.federalreserve.gov/releases/z1/current/z1r-5.pdf>

⁵ http://www.econstats.com/uk/uk_bb____80a.htm

Another savings element is incorporated in corporate equities and equities in noncorporate business. For these businesses both savings values together add up to another \$17.6 trillion or 27.2% of individual households' net worth. The interests costs are a cost element of production, but usually only represent a small percentage of total costs, the other costs being labour costs and the costs of raw materials and intermediate goods. The valuation of shares depends heavily on general demand levels rather than on interest rates. All in all savings in homes, for pensions and in equities, which together represent more than 60% of all savings, do not depend or only depend to a very minor degree on interest rate setting. If interest rates rise, companies will reward shareholders slightly less and bank loans slightly more. However the ultimate beneficiaries of both cash flows are the individual households.

The final element of households' savings is in short term deposits. It represents \$8.8 trillion or 13.5% of the total net worth of U.S. households. Evidence from the net worth data suggests that notwithstanding historically low interest rates these deposits keep increasing. Again proof that the reason for such savings is not to follow rewards -the interest rate-, but to set money aside for economic uncertain times. The conclusion is that approximately 75% of all individual households' saving is not sensitive or have a very low correlation to interest rate movements -the price of money-.

The real role of interest rates is in setting the long term government borrowing rates. Low or negative yields affect pension funds and mutual funds and thereby indirectly companies involved in Defined Benefit pension schemes. Low or negative yields after inflation will also mean lower or negative income levels for individual households.

My conclusions out of the above are threefold:

1. Individual households do not save or dissave because interest rates move, but they save to protect their homes from being repossessed and they save to build up a pension pot. Even their short term savings are accumulated not because of the prevailing interest rates levels, but because of economic uncertainties. Practically 75% of savings are made not because of the price -the reward for savings-, but because of other motives.
2. For most companies interest rate costs are only a minor cost factor. Aggregate demand levels are much more relevant than the actual level of interest rates. Currently large companies have build up huge cash reserves, not because interest rates are so attractive, but because the outlook for demand levels is so uncertain.
3. Income levels of individual households do suffer when the users of savings, especially governments are unwilling to pay a positive return after inflation for their debt. Making savers poorer does not help to jack up income levels of individual households at a time that such income injection is all the more needed to help demand levels grow.

4. The recent U.S financial crisis

4.1 The start

In October 2005 the level of new housing starts was 2.01 million. This monthly figure represents the seasonally adjusted annual level of new housing starts. The number of owner occupied homes was 74.2 million at the same time. A simple calculation shows that the new housing starts would replace the total stock of owner occupied homes in 37 years. If one takes the total housing stock number of 132.4 million units, it would take 66 years to replace all housing stock. The American Association of Home Builders expects newly built homes to last over 100 years. No data were found which provided a precise assessment of the average lifespan of existing homes, but one may assume that this lifespan might well be over 80 years and going up with every new home build. The conclusion to be drawn from this fact is that in 2005

individual households had the means to buy homes at a speed far greater than the population and replacement needs were at the time.

If households had all financed such home purchases for 100% from their own savings, the economy would have gotten a boost from turning savings into current spending levels. Economic history tells another story. Not only were most home acquisitions bought with borrowed funds, they were bought on mortgage conditions which were heavily skewed to a continued rise in house price levels. Such “softening” of mortgage conditions were clearly spelled out in a Deutsche Bank study⁶. In the years 2005 and onwards “subprime” mortgages were sold on a grand scale, to the tune of \$1.2 trillion out of a total mortgage market of approximately \$10 trillion. What made these mortgages so risky is that 37% of them were interest only mortgages without any obligation to save and repay principal amounts; 38% of these mortgages were 100% mortgages requiring no down payment; in 43% of the mortgages no income check was made and self certification of incomes is not the best method of checking on the viability of granting a mortgage to an individual household and in 80% of the mortgages an “attractive” low interest rate was built in the mortgage proposal prevailing for a period of two years after which time a steep hike in mortgage interest rate was applied. For all such mortgages the risks were shifted from an income related lending programme to an asset based one -the home values-. If house prices would drop, the borrowers would see their loan amount exceed the value of the home; if interest rates would increase, then after the two year period the steep hike in interest charges would become even steeper, leading to more affordability problems. When borrowers get into payment problems, they automatically become the lenders’ (or the holders of the debt titles) problems as well. The conclusion to be drawn from the funding process was that for an important share of the mortgage market, the financial market suppliers -banks mainly- were lending funds in which individual household’s income levels played a minor role and increasing house price levels the major role. This created an almighty speculative bubble which went wrong.

Evidence of the impending financial disaster could be traced back to the levels of foreclosures.⁷

Table 3: Foreclosures, Foreclosure Filings and Home Repossessions

	Foreclosures	Foreclosure Filings	Home Repossessions
2012 Year Projection	2,300,000	2,100,000	700,000
2012 (Jan-Sept)	1,616,427	1,382,000	572,844
2011	3,920,418	3,580,000	1,147,000
2010	3,843,548	3,500,000	1,125,000
2009	3,457,643	2,920,000	945,000
2008	3,019,482	2,350,000	679,000
2007	2,203,295	1,260,000	489,000
2006	1,215,304	545,000	268,532
2005	801,563	530,000	
2004	640,000		
2003	660,000		
2002	700,000		
2001	540,000		
2000	470,000		

⁶ http://www.globalsecuritisation.com/08_gbp/gbp_gssf08_022_031_db_us_subprm.pdf

⁷ <http://www.statisticbrain.com/home-foreclosure-statistics/>

The rise in foreclosures did not start in 2008, but already in 2005 when they jumped by some 25% over 2004. In 2006 they jumped by another 52% and in 2007 by still another 81.3%. All this exemplifies the case that mortgage lending in the period up to 2008 did not show the usual characteristics of a relatively stable level of foreclosures. The financial crisis started around October 2005 when new housing starts reached its peak, the level of foreclosures started to accelerate and simultaneously the 30 year fixed mortgage rate was increased from 5.77% till 6.36%.

It has already been pointed out in the above that the banking sector collectively created the home mortgage products and the home mortgage lending boom in the U.S. Some banks and mortgage originators were more aggressive than others but what matters is the volume of lending which is determined by the collective of banks.

The following table illustrates the growth in home mortgage lending figures for the U.S. for the period 2000 to 2012 (Source: Fed: B100 Balance Sheet of Households) as well as the growth in home values.

**Table 4: Increase or decrease in home mortgage lending levels
And in household home values levels 2000-2012**

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 3 rd qtr
Mortgage Lending level +/- \$billion	384	507	705	884	942	1039	983	675	- 52	-145	-302	-230	-275
Home Values Change +/- \$billion	1552	1374	1283	1631	2500	3090	682	-1870	-3316	-407	-577	-512	912

If the commercial banks had continued to fund the mortgage loans themselves, the crisis would have affected them most. However in the U.S, after the last depression of the 1930's, the government established firstly Fannie Mae and subsequently Freddy Mac, both government sponsored enterprises. Their role it is to support individual households in funding their home acquisitions. The problem with Fannie Mae and Freddy Mac's funding strategy appeared in October 2008, when both entities had to be rescued by the Federal Government. Reason for this was that Fannie Mae and Freddy Mac not only arranged the funding of home mortgages, but simultaneously took over the payment -credit- risks on individual households. If the latter risks had stayed with the banks, which could and should judge such payment risks, than neither Fannie Mae nor Freddy Mac would have experienced cash flow problems, provided the banks had given a bank guarantee for their clients' mortgage payment risks. It would also have slowed down the banking sector's ability to take on such payment risks on their own books.

Another major element in the risk transfer process was the securitisation of home mortgage portfolios. American investment banks started in 2005 and later years to sell Collateralised (Mortgage) Debt Obligations (CDO's) to domestic and foreign investors. Again this represented a risk transfer process of risks, which were partly poorly judged by the commercial banks -the subprime mortgages-. Helped by the judgment of U.S credit rating agencies to give such CDO's a AAA rating, such CDO's were sold around the world, but also to U.S. money market funds. Savers around the world -including via their banks, mutual funds and pension funds- invested in these securities. The final nail in the coffin came from CDS's, the synthetic CDO's, which no longer required the funding levels of CDO's, but represent a

leveraged bet on the outcome of the mortgage market securities values. Such bets could easily earn money out of declining home values. Banks could through their propriety trading activities take large bets and at the same time by not disclosing their own direction of bets, induce their clients to take opposite bets. Such banking activities encouraged market participants to trade in risks without the need to provide funding for the underlying assets.

What securitisation does to debt is to make it tradable on a daily basis. Rather than providing funds for the duration of the mortgage loan or a government debt facility and stay with the credit risks until maturity, banks have introduced the option to buy and sell risks on a daily basis. It is this conversion from funding till a loan matures, to funding which can be withdrawn on a daily basis, to risk taking on the underlying asset without even to have to come up with the funds for funding the asset, which really has changed the character of banking.

Individual households were never asked for their approval for these practices. However they were and still are very much affected by these changes. In the old banking world, banks used to act much more conservatively. They, through their credit vetting procedures, tried to ensure that their clients could repay their mortgage bills and let their clients take part of the risks themselves. Banks would also continue to hold onto the loans till maturity. They knew their clients. Securitisation of debt titles changed all that. The funders have no links with the clients any longer. They can not get involved in workout situations which old fashioned bankers would get involved in, if temporary payment difficulties occurred for an individual household. The only redress these "remote funders" have is to go after the asset values -the homes- rather than conclude deals with individual households. Old fashioned banks would have written off some of the debt, but would value their customers if the customers would show willingness to pay back as much as he/she could. Selling of the home would be the last resort.

On August 9, 2007 the French bank BNP Paribas told investors that they would not be able to take money out of two of its hedge funds because it could not value the assets in them due to a "complete evaporation of liquidity". Securitisation brings with it the chance of a complete evaporation of liquidity. This is what happened in the CDO markets from August 2007. This is what aggravated the mortgage lending crisis. No longer where individual households' incomes regarded as the potential source of repayment - the old fashioned banker's style-, but their assets -the homes- were regarded as the source of repayment. The CDS holders were also only interested in claiming their gains and other investors' losses as soon as possible. The run on the U.S housing market was on. Tables 3 and 4 provide the evidence.

No bank can survive a run on its deposit base; neither can a securitised bond market survive a concerted sales drive if all market participants run for the exit. A liquidity crisis can occur and did occur in 2008 as interbank lending practically dried up. Banks did not know which risks other banks were carrying and neither did the regulators. Banks stopped interbank lending, which for some banks, like Northern Rock in the U.K. amounted to about 75% of its funding base. Northern Rock was subsequently nationalised.

Regulators, banks and the investing institutions could all have realised that the real risks for mortgage bonds were not only in the payment performance of individual households, but also in the market liquidity levels of the bonds as well. The CDS's invention did not help either. Individual households were never asked whether they agreed with these market practices. They however suffered the consequences.

4.2 The effects

4.2.1 The income and savings effects

The U.S home mortgage crisis started around October 2005.

The effects have been and are still being felt around the world. All these effects matter to individual households.

Firstly the income effects in for instance the U.S. Take the year 2010. The unemployment rate was 9.6%, while in 2006 it stood at 4.6%; an increase of 5% of the labour force over this period. The labour force was 154 900 000 in 2010 and the average wage was \$41 675 per individual employed. The income effect for 2010 for the extra 5% of 154 900 000 equals 7 750 000; multiply the latter number times the average wage and the direct loss -due to the increased unemployment rate- to the US economy comes to approximately \$323 billion. Compare this to U.S. GDP in 2010 of \$14.582 trillion and the direct negative growth impact was 2.2% of GDP. 2010 has only been used as an example to calculate the impact of higher unemployment rates on demand levels. For each year that unemployment rates were and are higher than 4.6%, a similar calculation can be made. The negative impact of job losses on GDP continues up till to-day in the U.S and in all other countries where unemployment levels have gone up.

The second effect was and is on the value of savings for individual households. In 2008, American individual households lost slightly more than 19% of their total savings net worth in a single year: a loss of \$12.6 trillion. They lost 22.8% on their home values in the period 2006 - 2008 and 29.4% over the whole period 2006-2011. Only some recovery started in 2012. Individual households lost 40.2 % over their corporate equities holdings in 2008 compared to 2007 and 17.3% over their equity in noncorporate business over the same years. The flight to safety was clearly marked by the shift to deposits. In 2007 they grew with 13.9% and in 2008 with a further 8.1%. There was also a very strong shift from equities to U.S government bonds as witnessed by the changes in the 10 year yield. In July 2007 the yield was 5% and by January 2009 the yield had dropped to 2.5%

Another important element can be deduced from the U.S Balance Sheet of Households regarding the country's asset/liability mix. If a household borrows funds, it is of course on the understanding that the value created with the borrowed amount is at least equal or more than the borrowed amount, especially when an individual household borrows for acquiring a home. If new homes last, say, for 100 years, a maximum depreciation amount per annum would be 1%. What happened in 2006 and 2007 should have been a severe warning about the impending economic disaster. As shown in table 4, in 2006 house values went up by \$682 billion and home mortgages by \$983 billion. The new loan money exceeded the home value increase by \$300 billion. In 2007 the picture became much worse: home mortgages up by \$675 billion and home values down by \$1.87 trillion, a savings loss of \$2.545 trillion. The economic efficiency of the use of savings went down very rapidly. More (borrowed) money was translated into lower values of money. A great loss!

The American individual households learned quickly that new home borrowings led to lower home values, so there was little incentive to continue borrowing more. From the peak of \$10.55 trillion in home mortgages in 2007 they changed tack and started to repay their mortgages till as per the end of the 3rd quarter 2012 for a total amount of \$1.061 trillion or about 10% of the original borrowing level of 2007. Such change in households' economic behaviour has, of course, effects on economic growth levels. If one assumes that about \$500 billion annually in additional home mortgages is a sustainable level and if individual households would not have paid back about \$200 billion per annum, than the combined \$700 billion would have brought about a positive growth effect of 4.4% of 2012 GDP which stood at \$15.8 trillion. As it happened, the extra borrowings did not take place and individual households repaid their mortgages to the tune of \$200 billion per annum since 2007. In other words in paying back outstanding mortgage levels and by not borrowing more the US economy was 4.4% worse off per annum than before the banking crisis. Less borrowing and actively reducing outstanding debt levels will mean lower spending levels. Demand levels are reduced.

A main conclusion out of the above is that economists, bankers, central bankers and government officials did not understand the dangers of excessive lending levels. The subprime mortgage level may "only" have been \$1.2 trillion, but the savings losses for U.S individual households as a consequence of misguided banking activities were \$12.6 trillion in 2008 alone. This amount does not include the subsequent government deficit losses (see 4.2.3). The \$12.6 trillion also does not take into account the losses made by individual households in other countries around the world. The power of money left the people powerless. Individual households paid the price.

4.2.2 The price effects on U.S homes.

In October 2005 the level of new housing starts was 2.01 million. This monthly figure represents the seasonally adjusted annual level of new housing starts. The number of owner occupied homes was 74.2 million at the same time. A simple calculation shows that the new housing starts would replace the total stock of owner occupied homes in 37 years and the total housing stock in 66 years.

In January 2009 new housing starts dropped to 490 000. The replacement ratio of new building versus owner occupied housing stock dropped to 167 years and to the total housing stock to 274 years. Of course neither of these figures showed a stable housing market. They are excesses.

As explained in the above, the reason for these excesses can be found in the way savings were used. If, in 2005, aspiring new home owners would only have used their own savings rather than have used other people's savings by borrowing (part) of the acquisition price, the effect would probably have been less demand for new homes, as fewer households would have been able to complete such purchases. However no default on home loans would and could have occurred. The extensive use of credit on the wrong credit risk conditions was able to entice many more households to get a foot on the property ladder. The entry risk price was lowered so that 2.01 million new households could get a foot on the property ladder. Demand for homes soared, not because individuals had the funds to buy their homes, but because lenders had lowered the entry risk price by extending credit on non-sustainable levels. The increase in foreclosure levels in 2005, but especially in 2006 and 2007 showed that entry risk price was set at too low a level.

If one assumes that the current average lifetime of a U.S home is 80 years, the stable number of houses which could be build on an annual level would be somewhere around 1.6 million per annum.

Table 3 shows that from 2006 till and including 2012 5.35 million second hand homes were brought back on the U.S. housing market. Such sales have had four major effects:

- (1) They force house prices down, because the original home loans were no longer repaid out of the incomes of the 5.35 million individual home owners, but by liquidating the assets - the homes-. They were seized and brought back to the housing market to create an additional supply factor of 5.35 million homes over and above new housing starts.
- (2) Second hand homes are all homes built in the past, which is when their construction had an impact on economic activity. Second hand home sales reduce the incentive to build new homes. This has a current effect on economic activity.
- (3) When the financial markets move from an income related to an asset related recovery strategy on doubtful debtors -especially when such debtors are individual households-, the effect spreads from the 5.35 million individual households to all households through the house price effects. All home owners lose money, not just the 5.35 million households affected.
- (4) As mentioned earlier, American individual households quickly noticed that additional mortgage borrowing was the wrong personal strategy in times of declining home values. They started paying off mortgages to the tune of about \$200 billion annually. This effect combined with the fact that mortgage lending did not grow any longer had a negative effect on economic growth of about 4.4% per annum.

The risk price negotiated by banks when the mortgage period started for the 5.35 million home owners was clearly too low for the risks encountered. The house price drop from \$22.7 trillion per end of 2006 till \$16.0 trillion per end of 2011 represented a 29.4% in value loss on all 134.2 million homes in the U.S over this period. All home owners suffered, notwithstanding that "only" 5.35 million home owners defaulted on their home loans. Every single home lost on average \$50,000 from the original 2006 average value of \$169,150.

The money effect of lending the wrong volume of home loans at the wrong conditions turned the positive power of money into a negative one not just for those who could not afford to service their loans anymore but for all home owners. The securitisation of home mortgages amplified this effect.

Another conclusion one can draw is that the market price for homes reflects not only the demand for homes, but more importantly also the (ab)use of savings. It is therefore an incorrect market price, one based on wrongful risk assessments on the income levels of some 5.35 million individual households.

4.2.3 The income effect on the U.S. Government

The U.S Government publishes a Citizen's guide to the Financial Report of the United States Government on an annual basis⁸, the latest one is for the fiscal year 2011. If one combines these data with the ones published by the White House⁹, the period 2002 till 2007 produced an average government deficit of \$279 billion annually. From 2008 till and including 2012 the average annual deficit increased to \$1.158 trillion, about \$880 billion more per annum than in the period 2002-2007. The additional loss to individual households - increase in debt level over and above the \$279 billion annually from 2002-2007- was a combined \$4.4 trillion over the last five years. Not all of this incremental debt can be attributed to the housing market and subsequent banking crisis, but certainly the greatest part of it can. Unemployment levels doubled in this period, real economic growth levels dropped from 3.2% in 2006 till -2.6% in 2009 and is currently at 2.1% over 2012, which is well below its long term average. The current U.S government debt level is well over \$16 trillion and stands at about 102% of GDP, but also at 6.7 times the tax income of \$2.4 trillion over 2012.

If households would have been able to continue mortgage borrowing to the extent of \$500 billion per annum and not repay \$200 billion in mortgage debt and if the unemployment level would have stayed at 4.6% than the positive growth impact of these two factors alone would be around 6.6% of GDP, but probably more if one adds in multiplier effects. Not only would tax incomes have increased due to the higher level of economic activity, but government expenditure levels would have been less on social security costs. As it stands individual households have an extra \$4.4 trillion debt to service and pay this debt back out of a reduced level of collective incomes and savings. For this reason alone, the shorter the adjustment period, the better it is for the individual households.

5. Possible adjustment measures

5.1 A Loss Prevention Strategy

Probably a good way to start analysing in which way the U.S economy could be stimulated is to consider the role that individual households can play in this process.

In the suggestions for possible actions a clear distinction will be made between annual incomes for individual households: the money amounts gained by working for a living and the gains or losses over accumulated assets held by them on the one hand and the managerial actions taken by governments, central banks, the banking system and other financial services providers plus the actions of the IMF and the European Union bureaucrats to handle such money related asset volumes on the other hand.

One very important aspect, which individual households have never requested, is the switch made by banks and other financial market intermediaries to move from income based lending practices - practices which rely on future cash flows of individual households- to asset based lending -the values incorporated in homes and government bonds in particular. Banks and governments have made it an objective to make risks and claims tradable and thereby transferable. If individual households would have had a choice over this matter, en masse they would have refused to give permission for such a change in view of the disastrous effects which it has had on their individual net worth.

⁸ <http://www.gao.gov/financial/fy2011/11guide.pdf>

⁹ <http://www.whitehouse.gov/omb/budget/Historicals>

Individual households do not have the tools which companies have to stem losses over their income and over their savings. They cannot dismiss themselves as they need a job and thereby an income to survive; they also cannot, on an individual basis, eliminate the losses over their savings caused by the actions of one or more of the money managers: a government, a central bank, banks and other financial intermediaries.

Individual households also do not have legal rights to protect themselves from economic failures. They cannot sue the banking system for collective failures. They cannot sue a government over the right to have a job and an income, but in reverse a government can sue an individual household if the household does not pay its taxes on time. Individual households cannot sue a central bank over causing an income loss over their government bond holdings, held by themselves and/or by their financial representatives: the pension funds and the mutual funds.

All rights individual households have in relation to jobs, incomes and savings are economic rights. If individuals contribute to output, such output will grow as companies will only employ them if such output brings profits to these companies. Such jobs create incomes as well an improved return over their savings. If individual households do not contribute to output due to economic system failures, output, incomes and returns on savings are lost and those out of work depend for their survival on other households still in work. The right to work is the most fundamental economic right of all.

The second main economic right is to see to it that savings -the action of postponing consumption till a future date- is duly rewarded. Individual households need to save for some very basic needs: for a home as a roof over their heads and for a private pension to ensure that they individually can take care of their own future income levels rather than having to rely on the solidarity of others. They also need to take care that they can afford the claims made by the government over their incomes and savings for government debt servicing. From an economic perspective it does not make sense to save and subsequently see the value of the savings reduced to less than the original amount saved.

However this is exactly what happened in 2008 when individual households lost \$12.6 trillion. As per the end of the third quarter 2012 the net worth of individual households is still \$1.2 trillion below the 2007 level, notwithstanding all the incomes generated from 2008 till currently. This amount excludes the aforementioned extra loss of \$4.4 trillion in additional government debt created as a consequence of the 2008 financial crisis.

The losses and “profits” or gains to individual households are clear for everyone to see in the Balance Sheet of Households as published by the Fed on a quarterly basis. The size of losses and gains are nowhere else to be found in economic and financial statistics. Economic growth data do not deal with home values, share values, the values of pension funds and mutual funds, and the use of funds in a constructive or destructive manner. They also do not show separately the inflation and income effects of quantitative easing practices. Even the economic loss in having larger numbers of people unemployed is not quantified very often.

What needs to be considered is the use made of savings. In the Citizen's Guide to the Financial Report to the U.S. Government of 2011, the Government has \$2.7 trillion in assets and \$17.5 trillion in liabilities. Of the \$2.7 trillion only \$ 850 billion are property, plant and equipment and the remainder financial claims which include holdings of mortgage backed securities. The physical and financial assets will produce some income, but on the whole government borrowings have been used as consumption expenditure rather than as investment capital. Therefore the use of savings by a government for stimulating consumption levels -a Keynesian solution- is less effective than alternative solutions. Public works do create assets, but their income return over these assets usually stretch out over very long periods of time; cost controls are usually less strict than in private sector activities, due to all kind of political considerations and finally there is no clear profit objective or competition to compare with. Transferring more money to the social security beneficiaries also does not solve the problems as this is a pure consumption exercise, to be paid for by those still in work. Creating more posts in the civil service is also not a solution, if those jobs could have been carried out by the existing ones. At times when governments already need to borrow extensively, adding more debt on to the shoulders of individual households does not seem a particularly bright idea.

One has to conclude that companies are under far more pressure than governments to use savings efficiently and effectively. Companies have to turn savings into earnings in a much shorter time period than governments. Competition, private shareholders and the profit motive are the main reasons for such behaviour. The potential financial gains for individual households are greater if their savings are used by the company sector, rather than by a government. What companies cannot do is to set the demand levels by individual households.

When a home mortgage crisis occurs due to both “reckless” lending practices and a liquidity crisis in securitised mortgage bonds, the first economic effect which appears is a loss to the value of savings, the second one is a loss in incomes through lower new construction levels, the third one is a loss in jobs and in general demand levels, the fourth one is a shift of savings to government bonds and away from the corporate sector and the fifth one is an individual household’ loss through rapidly increasing government deficits funded by government borrowings.

A financial crisis causes all the money movements -the movements in incomes and savings- to move in the wrong direction. Money rather people determines the fate of an economy. The money managers have collectively lost their grip on such money movements. Individual households suffer as do pension funds and mutual funds, companies and a government. Even banks are forced to retract as their customers own lower savings levels as well as having less secure incomes.

When Keynes formulated his policies, private pension funds did not exist and certainly did not have any financial muscle as they do nowadays.

Currently the combined pension fund assets in the U.S are over \$14 trillion, which nearly equals GDP levels. These assets belong to individual households. A recent study (July 2012) made by Senator Harkin and his Committee¹⁰ (US Senate Committee on Health Education, Labor and Pensions) concluded that the retirement income deficit was \$6.6 trillion and that half of all Americans have savings of less than \$10 000. Such deficit is only partially caused by savers adding too small a part of their income to the accumulated savings, but is equally caused by the investment losses made as a consequence of the 2008 financial crisis. For instance in 2008 pension funds lost 23.3% of their values (a loss of \$2.9trillion) in a single year, notwithstanding the contributions made.

The sale of 5.35 million “second hand” homes kept the pressure up on households’ losses; the lack of job opportunities did the same; the lack of sufficient demand levels made companies hoard cash and restrict growth: another loss to society; the U.S. government needs to balance its books, but tax increases will increase the loss of disposable incomes. Only the growth in the numbers of people employed and the increase in wages and salaries will counteract such losses.

The conclusion is: the shorter the adjustment period can be kept, the better it is for all households concerned.

In order to do so a loss prevention strategy could be formulated. Such strategy could be based on five pillars:

1. The first pillar is: Economic Growth. Economic growth -the demand side for goods and services- can be encouraged if individual households could be given temporary access to some of their savings: Economic easing. Savings in homes and in companies cannot be converted into cash by all individual households at the same time. It would harm their home and company values. Pension funds constitute a major savings element for individual households. Pension funds receive interest and dividends -income- in a current year, but nearly in all cases a substantial share of such income is converted into financial assets. Economic easing is the action to temporarily postpone the conversion action and hand such income back to the pension savers in order to stimulate demand, create jobs and incomes, and improve company profits and lower government deficits.

¹⁰ <http://www.harkin.senate.gov/documents/pdf/5011b69191eb4.pdf>

2. The second pillar is: A Sound Banking Sector. As explained in the above the current losses to the individual households have been caused by poor risk management decisions by the banking sector on some individual households in home mortgage lending. On top of this the securitisation of mortgage debt to funders -including pension funds and mutual funds- have turned long term debt into short term assets and in the process have created job losses, home value losses, share price losses and government losses through increased debt levels. Suggestions on how the banking sector could be reformed are included in this article.

3. The third pillar: Maintenance of a Positive Income over Government Debt. The creation of slightly more government debt to increase current incomes via a higher reward over government debt titles helps to shift the balance back from creating financial assets -government debt obligations- to increased income levels over savings when incomes are needed to stimulate demand. Such a policy can be called: Quantitative strengthening (QS).

4. The fourth pillar is: Matching Incoming and Outgoing Government Cash Flows. To avoid the need to have more government debt created by social security payments, a system of “pay-as-you-go” could be introduced, whereby specific contributions of individual households are used for a specific type of government expenditure: social security payments.

5. The fifth pillar is: National Accounting. The losses and gains made in an economy are not reflected in economic growth data. The latter measure output, but not the monetary gains or losses made in the process of creating such output. Country Profit data should be taken as the lead indicator of economic health. They reflect the annual (or quarterly) increase or decrease in the net worth of individual households. They reflect the use made of the available savings. They link the monetary sector with the real sector. The U.S already produces such data, but they are not used for guiding the actions of the money managers.

This package of possible economic measures is aimed at creating the jobs needed and empowering households to turn the tide in using savings to the benefit of households rather than as a destructive power. It is also aimed at shortening the adjustment periods after a financial crisis has occurred.

5.2 Banking Reforms

Prevention is the better than a cure. This applies especially to the U.S and other worldwide banking sectors. If one sets oneself the aim to move the banking and financial sector away from liquidating assets and move back to rely on individual households' incomes as the source of their repayments, a number of steps may need to be taken.

Banks in their banking activities can create gains or losses. Losses can be caused by misjudging their client's abilities to repay loans out of future cash flows; they can be caused by transforming long term loans into short term financial assets and they can be caused by banks speculating via the derivatives markets on the outcome of the financial processes at work. The latter result depends on the outcome of the first two causes of losses, so the earlier two causes will be dealt with below.

5.2.1 Risk accounting methods need to be changed.

Once banks agree on, for instance, a mortgage for an individual household, they enter into a risk contract with their client: a risk taken on the future income levels of their client. Only in exceptional circumstances will the fall back position be the liquidation of the asset: the home. Banks multiply such risks by entering into many risk contracts for this one product line: mortgages. Banks know that a small percentage of these risks will not be honoured through repayments. The tax and accounting treatment needs to change in order to reflect such risks from the moment they are entered into till the moment of full repayment.

First of all the tax treatment: The U.S and other governments need to accept that the contagion effect of losses on a small number of doubtful debtors should not be spread to all home owners. In the U.S over the

last five years 5.35 million households were affected out of total 132.4 million homes owned. Such contagion prevention can be achieved by allowing banks to deduct risk provisions from their taxable income, not when the risks become doubtful, but from the moment such risks are entered into. By building up such payment risk reserves, the incentive is for banks to settle outstanding claims with their clients in an economically sensible way, by allowing a higher degree of flexibility in payment settlements. Only in truly exceptional circumstances should the threat of repossession be used.

Collectively the mortgage interest rates charged to all clients need to reflect the risk of non-payment by some households. The tax authorities could also stipulate that when actual loan losses are made, such loan losses can only be met out of payment risk reserves. If banks do not make adequate provisions, the excess level of loan losses would no longer be tax deductible. Such a method will incentivise banks to make conservative estimates of future doubtful debts. It will also incentivise banks to take a conservative approach to the mortgage products they sell as the more conservative banks gain a competitive advantage -lower risk provisions needed- over their competitors.

Secondly the accounting treatment: Banks in all countries deal in money, not in physical products. Banks take or should take on risks on future cash flows, be they from individual households, small and medium sized companies, large corporates or governments. Repayment of all these debt titles needs to be made out of future cash flows. Companies need sales turnover in order to pay back loans. Debt of an individual household needs to be settled out of a household's income as does government debt. What this all means in accounting terms is that the focus of bank accounting is or should be on income generation. Such bank income generation is created out of the difference in the price paid for the monies attracted and the price received for the monies lend. It is an income based approach rather than an asset based approach. The focus by the world wide bank regulators on bank capital and new capital requirements misses this point completely. They focus on the assets rather than on the incomes. If bank risks are properly managed, banks do not need a penny of capital. Their income flows plus above mentioned risk provisioning technique will eliminate the need for capital. What banks need to do is to turn equity capital into perpetual notes by giving these note holders a fixed income per annum for an unlimited duration. Such perpetual notes could be listed and traded, but should not be redeemed by the bank in question. If banks make proper risk provisions and pay their "long term" fund providers a decent risk premium, bank balance sheets would reflect the effectiveness of bank managements to manage risks properly. In case of under provision of risks the value of the perpetual notes would be written down and banks may need to attract more perpetual notes' monies. Central banks may wish to appoint external auditors specialised in risk accounting which report back to the bank but simultaneously to the central bank. Costs to be borne by the bank involved. Finally bonuses paid to management will come out of profitability levels of banks, which resemble true risk accounting methods.

Thirdly the client treatment: Individual households are not well served if they are treated as objects rather than as humans. Banks should be forced into accepting that when they want to sell a mortgage or another risk to other banks or to the financial markets, they should have the client's approval. In a sale to other banks not only the mortgage loan should be moved, but also the client's cash flow out of salaries and wages. In this way incomes and risks remain related and so can the risk provisioning method. If a sale to the financial markets takes place, the payment risks should stay with the bank concerned and the funding risks are transferred. In such cases, banks obtain the funding from sources other than their own depositors, but provide a bank guarantee to these financial market fund providers for the payment risks.

Fourthly Fannie Mae and Freddy Mac involvement: The strength of both Fannie Mae and Freddy Mac is that their obligations are ultimately guaranteed not by the U.S government but by all individual households together. Their weakness is that their risk taking skills are not based on a continuous assessment of households' abilities to service their debts. They have no direct link with the clients' cash flows. For this reason their competitive advantage is in the funding process of long term fixed rate mortgages, without taking on the payment risks on the individual households. The U.S is in a fortunate position to have these two institutions. For commercial banks there is always the matter of liquidity when short term funds are converted into long term lending. Fannie Mae and Freddy Mac have no such problem. They can raise long term funds easily with the backing of all individual households together. Fannie Mae and Freddy Mac were not set up to make profits out of a maturity mismatch, which is commonplace to commercial banks. Fannie

Mae and Freddy Mac could receive bank guarantees from the risk originating banks for the credit risks on individual households. In the recent dispute settlement for the amount of \$20 billion some US banks have accepted that what they did in creating the home mortgage crisis did cause harm to Fannie and Freddy fund providers and to some directly involved individual households.

Fifthly: Investment banks: Investment banks also deal in risks. Such risks originate from equity and bond fund raising exercises for companies; for merger and acquisitions between companies and for stock market introductions. What went wrong in the U.S. is that such banks sold individual household' risks to investors not based on their own client-bank relationship, but just as an intermediary. If above banking reform system is followed, the role of investment banks will be restricted to raising funds only and not selling any payment or credit risks on individual households. For their remainder tasks, including raising funds for governments, they also need to build risk reserves for all their client related activities, just like retail banks. As investment banks do not have a wide spread of clients, their provisioning should reflect the concentration of their counterparties and make higher provision levels. In the set up as suggested above, there is no need to split up investment banks from retail banks as long as all investment banking products including derivatives trading to companies and governments are seen as risk activities, requiring proper provisioning.

5.3 Possible Central Bank actions: QS

Individual households have no say over the setting of interest rates for longer term government bonds. However if one would ask them which type of government bond they would like the most, their most likely reply would be to have inflation related indexed linked government bonds. These are the same bonds which nearly completely constitute the pension reserves of the pension fund of the Bank of England.¹¹ In the U.K such bonds have done outstandingly well from an income point of view and so has the pension fund of the Bank of England. For pension funds, such rewards are essential in ensuring that pension reserves are in line with index linked pay-outs.

However what individual households -and their representative financial organisations as pension funds, mutual funds and banks- are currently faced with is that inflation levels outstrip 10 year and shorter government bond yield levels. This is the case for the U.S., the U.K., and for Germany and other Northern European countries. Japan has a slightly positive yield margin over inflation. Just like in the case of the banking sector and mortgage bonds, there are parallels with government bonds. Government bonds represent an income flow and a financial asset for the holders of such bonds. Governments enter into a risk contract with their individual households and their financial representatives. Government debt will in due course have to be repaid by the individual households collectively. Such risk contract may not be a written one, but every cent and penny borrowed cannot be repaid by the government itself, but has to be done by the individual households -an economic and financial necessity-. It certainly would be a repeat of the Weimar Republic if central banks had the aim of money printing in order to eliminate all government debt. Money would become worthless.

By buying up bonds through quantitative easing exercises, central banks do not reduce the risks to individual households but they do change the price of the bonds; the inflation level with the money created -which is not based on true savings- and the individual household's income level over the total outstanding government debt level. In the U.K for instance the Bank of England has bought up £375 billion out of a total government debt level of slightly over £1 trillion. By the Bank's own admission it has increased inflation levels by about 1%. The current 10 year gilt yield is 1.84% and the current inflation level is 2.70%, a negative 86 bp carry. Index linked gilts represent about 20% of the total gilt market.

Banks and pension funds are forced by the regulators to value their government bond portfolios at a mark-to-market price. Central bank's bond purchases add a substantial element of price fixing to supply and demand, which is very much like the behaviour of oil exporters. It reflects supply management to the free markets and

¹¹ <http://www.bankofengland.co.uk/about/Documents/humanresources/pensionupdate.pdf>

thereby undermines the true market price for government bonds. It becomes a regulated price, a useless instrument for measuring true levels of supply and demand for such bonds.

Secondly the bond buying practice increases the so-called market value of existing bonds leading to profit levels which are unreal, as they are the effect of central bank's actions. An article in the U.K Daily Telegraph of 31st December 2012 assesses that "the real winners of the QE programmes have been the hedge fund managers and that those relying on interest income have suffered; especially the savers and pensioners."

The stated aim of QE programmes is to bring interest rates down for borrowers, be they companies or individual households. In my view the emphasis is on the wrong side of the equation. As explained in the above, in the U.S situation, about 75% of individual households' net worth does not follow the price for money: the interest rate. In the case of home mortgages individual households are actually reducing borrowing levels. Even short term savings can be regarded as interest rate insensitive as is evidenced in the Balance Sheet of Households, which shows that savings levels increased when interest rates dropped. Large companies are acting in a similar manner as individual households; they are hoarding cash or repaying obligations. Banks do not benefit either as they try to repair their balance sheets and are not keen on increasing exposure when demand levels in the economy remain sluggish. QE programmes are based on supply driven factors rather than being based on incomes earned in a society. It is the latter factor which will accommodate increased lending levels.

What QE programmes should have done - which is not unnatural when U.S government debt has risen from \$7.6 trillion at the end of 2004 till \$16.37 trillion per end November 2012- is at least to maintain the positive margin over inflation which in 2004 was 1.7% for 10 year government' bonds. The reason that U.S government bonds are still attractive to financial markets is that they offer an escape route for savings from other financial asset classes, notwithstanding the interest rate levels. This is based on the expected ability of individual households in the U.S to keep up in paying interest amounts and to keep up the payments in future over some principal amounts. It is based on the net worth of individual households and their future cash flows and rightly so.

If the aim of QE programmes would have been to maintain the positive 1.7% margin, the Bureau of Public Debt in co-operation with the Fed could have issued government bonds, not to fund government deficits, but to support the income generation of pension funds, mutual funds and of individual households. Such a move would have reduced or eliminated the need for companies to pledge additional resources to support their DB pension schemes and companies would have been left with more resources to invest. The costs? If one takes the Citizen's Guide to the 2011 Financial Report of the United States, the government debt outstanding to the public was \$10.2 trillion. The interest paid was 7% of \$3.7 trillion (2011 government expenditure level) which equals \$259 billion. The latter amount equals an average interest rate over outstanding debt of 2.54%. As the inflation level was 2.4% average over the year till September 2011, the additional costs would have been 1.56% over \$10.2 trillion equals \$159 billion. By combining an increase in the percentage of inflation linked bonds, longer maturities, higher volumes of debt with higher debt prices, the resulting payment of \$159 billion could have been achieved. The charges could be transferred to the government budget as and when the U.S government needs additional financing. It is basically a pre-financing operation, but with the aim to increase the payments over outstanding debt from \$259 billion till \$418 billion annually creating an increase in incomes of 1.1% of GDP.

Such programme approach could be called QS which stands for Quantitative Strengthening. It is an income based approach rather than an asset based swap from the private sector to the public sector which reduces current households' incomes over an increased risk level.

5.4 Jobs and demand levels to support economic growth: Economic Easing

No economist is in doubt that higher aggregate demand levels would create more jobs. If such jobs are not dependent on transfer payments from one group of individual households to another, from broadly speaking the private sector to the public sector, than the incomes of those jobs created will truly support additional

consumption and savings. Such incomes and savings will also make it possible to extend more credit to the individual households, which will accelerate the economic progress, provided such credit extension can be met out of future households' incomes.

The study of the balance sheet of U.S households allows one to come to the following conclusions:

The institutionalisation of savings in pension funds, in homes and in equities in corporate and noncorporate businesses, which in 2006 constituted 68.7% of all U.S savings assets, means that initiating moves between savings and current consumption is severely hampered. Individual households own the savings, but cannot make use of them. On top of this the incomes out of government debt have been severely reduced, in part due to Quantitative Easing exercises undertaken by central banks and in part due to the shift in savings away from risk related economic activities to the least risky investment category -government bonds-.

Taking risks on economic activities is the only way an economy can create the jobs needed and support a reduction in government deficits. In order to achieve such a goal, demand levels have to grow faster. The only real option of converting some savings into current consumption cannot be found in selling homes to free up income and not in selling shares or liquidating companies, but only in using pension reserves as the temporary source of an asset conversion into current cash -economic easing.

Such use of savings does not create debt as all pension savers together own the pension funds' assets. One measures the currently needed pension fund reserves by discounting the future liabilities over the group of individuals covered by the pension agreement and taking into account their life expectancy. The beauty of economic easing is not that the pension liabilities change, but that the asset values underpinning such liabilities will change as a cash bonus paid out in say 2013 and perhaps 2014 will change the level of demand in an economy and with it the job opportunities, share prices and if central banks apply the QS method also the returns over government debt. An expected increased value of pension assets changes the discount rate, the net present value of future obligations.

Of course economic easing is a risk strategy, which pension funds may be reluctant to enter into, unless all other pension funds act in the same way and unless there is a backstop which will cover their "investment in their members". However economic easing is based on sound economic principles if all individual pension funds and their members cooperate. The main aim is to reduce the unemployment levels from the current 8.1% till 4.6% by increasing demand levels in the U.S. economy. The main tool is to give pension savers and beneficiaries temporary access to a small part of their pension savings: "a Pension Dividend". The main backstop is that all pension funds receive a government guarantee -backed up by all individual households- that if such risk strategy only partially fulfils its objectives, the remainder obligation will be paid up by a government on basis as if the funds were borrowed on a 10 year government bond maturity. However the increase in the value of the assets as a result of economic easing should be set off against the government guarantee. In my background paper to the Tenth Annual Conference on Pensions, Retirement Security and Strategies for Investment Conference organised by Harvard Law School (March 28-30 2012), I suggested to use "economic easing" as a method to stimulate economic growth.

Economic easing can be defined as the action of turning a small part of the income out of the pension savings into current consumption, not by the pension fund itself but by the owners of the savings: the individual households.

Take the U.S. case as an example. If 2% of pension savings were distributed in 2013, this would mean that \$280 billion extra consumer demand would be created, provided all beneficiaries spend their pension dividend on consumer goods, something they could be encouraged to do by President Obama. This would represent a consumption driven boost of 1.85% of GDP in 2013. If, assuming again, that markets know that such action would be repeated in later years until economic growth reaches its optimal growth path, than such certainty will make companies wanting to invest their cash reserves or obtain additional bank or capital markets funding. Jobs will be created. Production levels will be increased. Company profits will increase, hence share prices will improve. Country profit levels will start to improve. Finally the government will benefit from higher tax incomes. The positive multiplier effect will start to work.

If one would ask individual households if they would agree with such a course of economic action, I am sure that nearly all would welcome the economic stimulus process by using their own savings. The objections are all likely to come from the “money managers”, who do not own the savings; both governments and pension and asset managers.

The practical implications for implementing an economic easing policy are as follows:

- **Step 1:** The Government aims to reach an agreement with all pension funds (DB as well as DC schemes) so that the latter can pay say 2% of their value to all pension savers and retirees. The values could be fixed as of 30th December 2012.

- **Step 2:** Once an in principle agreement has been reached, such pay out (a pension dividend) could be made available in four equal quarterly instalments of 0.5% of the value, starting as soon as administrative hurdles have been overcome.

- **Step 3:** The pay out could be for an equal amount per pension saver and retiree. This would benefit the younger and the less well off more than those closer to retirement date and those with the larger pension pots. However the younger participants have the longest period of contributions and investment risks ahead of them.

- **Step 4:** As the aim of this measure is to stimulate economic growth; the government might agree to have the pension dividend paid out tax free.

- **Step 5:** If pension funds are short of cash, they could be allowed to borrow these amounts from the Central Bank in their respective country, until pension contributions and dividend and interest flows have come in.

- **Step 6:** As a logical extension of economic easing, which is done to create more Country Profit for all households, a government could agree that the pension savings used for current consumption will be guaranteed by the taxpayers if the value increases in other assets created through economic easing show a shortfall.

- **Step 7:** The logical conclusion could be that such shortfall guarantee is assessed as and when economic growth rates have reached the desired level, in other words when Country Profit levels have reached their long term average and unemployment levels are reduced to 4.6% in the U.S

- **Step 8:** The rewards for pension funds in participating in such a scheme could be a taxpayer's shortfall guarantee, based on inflation based remuneration per annum for the pension funds. The indirect rewards for pension funds are more substantial as the increased level of demand in the company sector will be translated in higher share prices. Banks will experience less loan losses. The government will also benefit indirectly by higher tax incomes. The maturity of the economic easing facility should be determined by the pension funds and the government jointly based on actual country profit developments.

- **Step 9:** As the repayment obligation is not linked with the repayment of past government expenditure, economic easing does not influence government debt levels. It is in effect a scheme to bring forward the use of a small part of the savings and have such savings replaced by increases in asset values as and when Country Profit levels start to rise and if such there is a shortfall than the government's guarantee will kick in.

- **Step 10:** Finally the beneficiaries of the pension dividend should be convinced that the amounts are for consumption purposes rather than for adding to the savings level. This needs political commitments at the highest level.

The economic easing method can be started up and stopped very easily. It can also be maintained for longer than a year, if needed. Both groups of taxpayers and pension pot savers and retirees are U.S. citizens. A potential positive side effect of economic easing is that it will stimulate individual households to participate

in funded pension scheme savings as only pension savers and retirees will receive the pension dividend. Such participation will reduce the pressure on future government's budgets to provide for the basic state pension.

Economic easing can be implemented in the U.S and other countries with a substantial funded pension system. In the cases of Spain and Italy, for instance, these countries have not built up such pension reserves and may need some help from other Eurozone countries.

5.5 Government action on transfer payments

A type of action, which governments can take, is to make social security payments dependable on the "pay-as-you-go" system. In Germany, for instance, state pension beneficiaries can only receive whatever comes in specified tax charges on all employed individuals. If the number of employed contributors decreases and their contribution volume thereby also decreases, then the consequence is that with a delay of one month, also the payout to state pension beneficiaries decreases. This principle could be applied to unemployment benefits, sickness benefits, housing benefits and any further benefits that individual households receive from those in work. For housing benefits, such system needs to be included in the rental contracts government entities conclude with home owners.

One argument often used in defending pay-outs on basis of needs, rather than on incoming cash-flows, is that the economy is better off -an economic stabiliser- if such pay-outs continue notwithstanding lower tax receipts. However if governments need to borrow more, it means that individual households will have to pay back larger amounts later. The so-called stabiliser effect turns into a destabilising effect later, not a very good economic principle. More government debt also means that in future households have a lower level of disposable income, which limits the individual's ability to use the credit extension method to a society's advantage.

6 Conclusions

Individual households own all the savings in a society. Their opinion is rarely sought on matters which affect the use and the returns on such savings, let alone getting their consent. Financial crises can occur and for crises induced by the "money managers" there are options to overcome such crises. This can be done through reorganising the banking sector as well through economic easing and quantitative strengthening. Once companies have the confidence that market demand levels will pick up due to individual households having a higher disposable income level, they will start to invest and the multiplier effect of investments, job creation, lower banking risks and lower government debt levels will turn the negative power of money into a positive territory again.

What is most important is to shorten the period of economic upheavals. Liquidation of assets lengthens this period. Income boosts: if not out of increasing employment levels, than by using savings and convert a small part of such savings into increased consumption levels will do the trick.

Such income generation needs the help of pension funds and the individual households. It also needs the help of government. Together the people's power can overcome the power of money.

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