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5th April 2015

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Introduction

Economic growth data does not show how such growth was achieved. Was it based on income growth and consumption spending levels or was it based on borrowings to extend the income levels?

The question is vital for deciding which economic tools work best for correcting imbalances. The main imbalances are based on the developments of two key variables: the level of income growth and the level of debt incurred to buy homes, consumer goods and education.

The U.S. Balance Sheet of Households and Nonprofit Organizations¹ sums up, very succinctly, the wealth position of households through various asset and liability classes. What a single balance sheet cannot show is how assets, liabilities, incomes and net worth interact. Making use of historical balance sheets provide a better insight.

For instance in 1997, the combined liabilities of home mortgages and consumer credits as a percentage of disposable personal income stood at 82.9%. By the end of 2006 this percentage had increased to 123.7%. Per end of 2010 this percentage had dropped to 111.6%, only to drop even further to 96.4% per end of 2014. Student loans have not been included in these figures.

If debts grow faster than income levels, one may define such a period as one of overfunding and, when debts grow slower than incomes, underfunding occurs. Overfunding took place in the U.S. from 1998-2007 and underfunding from 2008-2014. Relative positions are important, but the absolute level of incomes growth is essential. During the overfunding period average income levels had a tendency to grow slightly faster than the CPI level, while during the underfunding period average income growth lagged behind the CPI inflation levels. Finally, the spread of income levels around the average is important. Do the lower income groups benefit less from economic growth than the better off?

This paper aims to set out why some new economic tools are needed to correct imbalances. They are: (i) the Economic Growth Incentive method (EGIM); (ii) the use of some pension fund savings and (iii) the use of home equity, which is the most illiquid of all savings. All three tools are for temporary use only.

In the U.S. at 2014 year-end, pension entitlements stood at \$20.8 trillion while owners' equity in household real estate was valued at \$11.25 trillion. In the U.S. such locked up equity positions have not been used as an economic policy tool to speed up or slow down the conversion process from equity to income when economic circumstances require such actions. Neither have future government cash flows been used as an economic policy tool.

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

1 Economic policy tools

1.1 Current tools

The discussion about economic policy tools is usually focused on fiscal and monetary policies. The fiscal policies are concentrated on the use of taxes and the levels of government spending. The main aim is to influence the level of aggregate demand, the level of savings and investments and the distribution of incomes over the various income groups in a country. In line with monetary policy goals, the stance is usually described as neutral, expansionary or contractionary.

Monetary policy is the process by which a monetary authority of a country controls the supply of money, often targeting an inflation rate or interest rate to ensure price stability and general trust in the currency. Further goals of a monetary policy are usually to contribute to economic growth and stability, to low unemployment, and to predictable exchange rates with other currencies.

Monetary policy is also referred to as either being neutral, expansionary or contractionary, where an expansionary policy increases the total supply of money in the economy more rapidly than usual, and contractionary policy expands the money supply more slowly than usual or even shrinks it. Expansionary policy is traditionally used to try to combat unemployment in a recession by lowering interest rates in the hope that easy credit will entice businesses into expanding. Contractionary policy is intended to slow inflation in order to avoid the resulting distortions and deterioration of asset values.

1.2 Why current tools have been ineffective

Main cause of the financial crisis

What started already in 1998 and went on to 2007 was that the growth in incomes of U.S. households did not keep pace with the increase in house prices. The latter, fuelled by excessive lending levels, led to house price increases far in excess of incomes' growth and the CPI index developments. Based on population growth and on the changes in family size and living preferences, the U.S. would require about 1.8 million new homes per annum. In the U.S., contrary to some other countries like the U.K., obtaining construction permits is generally a fairly straightforward process. Physical supply side restrictions did not seriously influence house prices. What caused the housing crisis and the financial crisis was the supply side of money pumped into the housing market, especially the flow of funds to those unlucky enough not to be able to buy a home outright: those who needed a mortgage to complete their home acquisition.

How incomes and household debt relate to one another can best be reflected in the debt-to-income ratio and in the allocation of mortgage debt funds over house building and house price inflation: the debt-to-asset values.

Overfunding occurs when the volume of debt increases faster than households' income growth. The debt-to-income ratio reflects this phenomenon. Overfunding also occurs when higher levels of new mortgage debts result not only in new homes being built, but also in the values of existing homes increasing faster than income growth and the CPI index. The debt-to-asset values ratio reflects the latter overfunding aspect. A dollar in new savings for the purpose of buying a home is depreciated in value compared to a dollar saved in previous times.

To illustrate the first overfunding aspect in the U.S.: in 1997, the combined liabilities of home mortgages and consumer credits as a percentage of disposable personal income stood at 82.9%. By the end of 2006 this percentage had increased to 123.7%. Underfunding started in 2008 and per the end of 2010 the debt-to-income ratio percentage had dropped to 111.6%, only to drop even further to 96.4% per end of 2014. Student loans have not been included.

To illustrate the second overfunding aspect in the U.S.: in 1998 16.3% of the increase in mortgage funds were used to increase house prices faster than incomes and the CPI index. In 2000 this percentage had increased to 40%, by 2002 it had continued its increase to 61.6%. By 2004 it had further increased to 67%; by 2006 it reached its peak of 68% to drop back to 63.5% in 2007.

The overfunding period lasted from 1998 to 2007 and the underfunding period stretched out from 2008-2014. A more extensive discussion about overfunding and underfunding can be found in a paper: Overfunding and underfunding, a main cause of the business cycle?²

What the debt-to-income ratio and the mortgage debt allocation levels show is that a ratio and a level change is a gradual process. The risks taken by the banking sector (or sold to final investors in mortgage-bonds) move gradually from a relatively low risk percentage, like 83% in 1997 to a very high-risk scenario, like in 2006, when the ratio reached 123.7%. The chances of some debtors not being able to fully service their loan obligations are much higher when a larger share of income is needed to repay outstanding mortgages. When, as happened from 2004, the pace of selling sub-prime mortgages was strongly accelerated, the risks were multiplied that some incomes were insufficient to fully service the mortgage debt. If such risks, like American banks did it, are sold to non-banks that have no obligation to maintain a reserve ratio, any non-performance of a cluster of mortgages is sufficient to call the values of all mortgage bonds into question. A lack of liquidity in a financial market segment can reverse a funding trend very quickly. Not only that, but it

² <http://mpr.ub.uni-muenchen.de/62571/>

also hastens the pace to get doubtful debtors to pay up or lose their homes through repossession.

An individual household has to make a choice in which year to take up a mortgage. Such choice is firstly determined by how much the household has saved up to provide the own equity element for the purchase. Secondly, it means the household has to guess what future interest rates will do to his or her ability to continue to service the mortgage debt. Thirdly, the household has to make an estimate of what they believe what future house prices are likely to be. Fourthly, a household has to guess what his or her future income levels are going to be and finally a household is in an impossible position to guess what the overall future mortgage lending levels are going to be. The latter influence the macro-economic debt-to-income levels and the value loss to a dollar saved to buy a home.

Individual households have to weigh up all these variables at the time when they want to acquire a home. The act of buying a home with the help of a mortgage is not based on supply and demand considerations, but on guesses about future variables.

Is it surprising that such an important choice is fraught with risks that an individual household cannot oversee; let alone manage.

Banks can and do know how the macro-economic debt-to-income levels are developing over the years. However is any bank going to tell its shareholders that it is slowing down its mortgage lending activities, only to let other banks make profits? Will Fannie Mae and Freddy Mac be doing the same? Unlikely, especially in the case that mortgage origination can be offset by sales of such mortgages to outside investors who take up the risks.

If the banks cannot manage themselves and free market competition does not stop them, who and what does?

In the run up to 2008, this should have been the question that U.S. banking and securities regulators needed to have answered; regrettably they didn't.

Fiscal policies

In fiscal 2007 the total level of revenues for the U.S. Federal, State and local governments³ amounted to \$5.170 trillion. This level dropped to \$4.667 trillion in fiscal 2008 and it dropped further to \$3.665 trillion in fiscal 2009. Tax revenues showed a clear link to the drop in incomes for all non-government sectors: individual households, businesses and the financial sector.

³ http://www.usgovernmentrevenue.com/break2007_0.html

In 2007 the combined U.S. government revenues levels were \$5.170 trillion and the outstanding debt level was \$11.4 trillion. Debt to revenues level was 219%. In 2009 the revenues level had dropped to \$3.665 trillion and the debt level had gone up to \$14.6 trillion. The debt to revenues level had moved up to 398% in just two years.

The drop in revenues (Federal, State and Local) was \$0.5 trillion in 2008 as compared to 2007 and another \$1.5 trillion in 2009 also compared to 2007. In total over the two years \$2 trillion. The outstanding debt level was \$11.4 trillion in 2007 and increased to \$14.6 trillion in 2009; a \$3.2 trillion increase.

The Keynesian cash injection amounted to \$1.2 trillion over the years 2008 and 2009. This was over and above the level of maintaining government expenditure at the 2007 level in 2009.

The loss of U.S. government revenues of \$1.5 trillion in 2009 as compared to the revenues level of 2007 was an income loss to government. Under such circumstances to maintain a government's expenditure level with the help of borrowed funds makes perfect sense. However did it make sense to borrow an additional \$1.2 trillion for influencing the level of aggregate demand?

In the paper: "Overfunding and underfunding, a main cause of the business cycle?" the real cause of the 2007-2008 crisis was identified that mortgage debt funding to households over the period 1998-2007 was not only used to build more homes, but also to extensively fund house prices to increase faster than incomes' growth and the CPI index. Household incomes had been put under severe pressure. Economic imbalances were created in the household debt-to-income and debt-to-asset values.

In 2009 the \$1.2 trillion was not channeled directly to households, but was used to expand government activities. Taking on even more debt cannot solve a situation of too much debt, even if the new debt is a collective one and the existing debt is one of individual households. The key variable is the household income levels, as the household debt level constitutes an existing fact, which cannot be changed. Directly addressing household incomes levels will work faster and more effective than the indirect Keynesian cash injection.

Monetary policies

Changes in interest rates are supposed to help accelerate or slow down economic growth levels. Low interest rates are supposed to entice households to borrow more and spend more and higher interest rates to slow down such process.

The income level of an individual household constitutes the basis for any borrowings. The same applies to a government. In this connection, what has been remarkable over the period 1998-2007 has been the setting of interest

rates. For instance in 2001 on basis of the funds supplied as home mortgages (\$509 billion) the number of homes which could have been built if house prices had moved up in line with the CPI index since 1997, was 3.161 million homes. The actual number of housing starts in 2001 was barely half this⁴. In 2001 about half of the funds in money supplied as home mortgages were used to create house price inflation over the CPI level and not for new housing starts. Overfunding was taking place and the reaction of the Fed was to lower the Fed funds rate from over 6% at the beginning of 2001 to 1.75% in 2002. As could have been expected, rather than slowing down the overfunding trend, an even stronger overfunding level followed the rapid lowering of the Fed funds rate. In 2004 68% of all new home mortgage borrowings were not spent on new home building, but on forcing house prices up above the CPI levels.

The household debt-to-income levels deteriorated continuously from 1998-2006. From an overfunding perspective, a policy of maintaining interest rates at about 6% during the period 2002-2006 would have been preferable over the lowering of interest rates to 1.75% or even 1.0% as was done in 2004. The risks to U.S. households were contained in the use of borrowed funds and in the allocation of funds to stimulate house price inflation rates far in excess of CPI inflation levels and household incomes. Lowering interest rates were conducive to stimulating such overfunding levels.

The current Fed funds rate of 0.25%, which has been the rate since November 2008, has not been conducive to stimulate mortgage borrowings by households over the period 2008-2014. Ever since 2008 individual households have repaid about \$1.2 trillion of the total mortgage debt levels of \$10.5 trillion in 2007. The lowest interest rates on record did not turn around the underfunding level. What did turn the economy around was the improvement in the debt-to-income levels. Individual households achieved the latter improvement by saving more from income levels to reduce outstanding debt levels.

The conclusion out of the above is that the evidence suggests that the Fed's interest rate policy as applied from 2002-2014 initially strengthened the overfunding process from 2002 to 2005, when Fed funds rates were kept below or at 2%. Subsequently from January 2005 to July 2006 the rate was increased from 2.25% to 5.25%, to stay at this level to September 2007. The main push into sub-prime mortgages started in 2004. Many of these mortgages had a two-year period of below market interest rates. Mortgage-backed securities contained a sizeable share of sub-prime mortgages. These sub-prime mortgage holders did not expect the move up in interest rates in 2006, which increased the level of doubtful debtors substantially. Such non-performing mortgages in the mortgage-backed securities were the reason for the liquidity crisis in these securities, which happened in August 2007.

⁴ <http://mpira.ub.uni-muenchen.de/62571/>

The interest rate policy as applied from 2002 to 2005 did not address the overfunding trend, but rather strengthened the process. When the Fed did start to raise interest rates from January 2005, it did not fully take into account the potential level of doubtful debtors that such a policy change might bring about. Its reversal of policy from September 2007 did not benefit most existing mortgage holders. In 2008 the liquidity crisis in mortgage bonds affected financial institutions, the equity markets and the job markets. Households' income levels came under severe pressure through rapidly increasing unemployment levels and a wages growth pattern below CPI inflation levels.

The Fed's role in liquidity support for banks and other financial institutions as well as borrowers and investors in key credit markets worked well.

In October 2008 the Fed started with a program of Quantitative Easing. This program was directed at mortgage bonds and government treasuries. QE1 was followed by QE2 and QE3. These programs helped to lower the long-term interest rates. It also helped share prices to recover.

By 2008, what these programs did not do was to provide short-term liquidity to help all individual households. The overfunding process had been left uncorrected. By 2007, the mortgage debt level was fixed by and the only variable to improve the debt-to-income level could have been to influence the level of household incomes. There are three ways to do this: The Economic Growth Incentive Method and the unblocking of savings in pensions and in home equity.

2. The Economic Growth Incentive Method

From the start of 2008, the readjustment period for the U.S. economy has taken well over 6 years. The financial crisis had affected the whole economy: companies, individual households and the Government's finances. A finance-induced crisis needs a finance-induced answer.

The Federal Reserve did save the banks, apart from one. It did save the financial markets from collapse. It did lower short and long-term interest rates and it did monetize \$2.461 trillion of government debt and \$1.737 trillion in mortgage debt as per its balance sheet of 31 December 2014.⁵

The real question is: Would it have been possible to shorten the adjustment period?

The key consideration could have been to shift the attention away from institutional support –support of the banks and the financial system- to some form of support for individual households. More of the latter would have reduced the need for the former.

⁵ <http://www.federalreserve.gov/releases/h41/current/h41.htm>

In 2007 the average median household income was \$50,740.⁶ The number of individual households was 116 783 000.⁷ If in 2008, the Federal Reserve had decided, with approval from the Houses of Congress, to advance tax free 4% or \$2030 to every individual household, the total bill would have come to \$237 billion. If in 2009 3% had been advanced the bill would have been about \$180 billion and for 2010 2% with a bill of \$130 billion; in total \$547 billion. For the lowest fifth income group this would have meant an income increase of 11.47% over their average household income of \$17,700. For the second fifth with an average income of \$38,000 it would have meant an income injection of 5.34%. For the third fifth it meant an injection of 3.67% over their median income of \$55,300; for the fourth fifth a 2.61% injection and for the top fifth a 1.02% injection.

In summary, the 2008 cash injection would have implied a 1.61% growth incentive, as the GDP for the year was \$14.72 trillion. The consumption multiplier would have most likely made the result even more significant. The cash injection would have caused less stress to the banking sector, so that the banks would have been able to fund the business sector better. It would also have reduced the government's deficit, as more tax would have been due from a higher economic growth rate.

The EGIM cash injection would have helped the lowest income classes the most. These classes are also the most likely groups to have needed a mortgage to get on the property ladder. Such groups would also be the ones with the lowest levels of savings and thereby excluded from the benefits of quantitative easing: the rise in share prices and the appreciation of bond prices. The EGIM method helps to correct the inequality in income growth that the QE process through its effects does strengthen.

The claim that the Federal Reserve would have had on its books would not be a claim on individual households, but on the whole economy, represented by future government revenues. Instead of spending a full \$2.4 trillion on past government debt through Quantitative Easing, about \$550 billion could have been spent on basis of future government cash-in flows. In other words the Houses of Congress could have authorized that the Fed could reclaim the individual household cash injection from future government revenues over a period of say ten years.

Some of the cash provided to individual households would have been used to service outstanding mortgages. The result would have been fewer foreclosure proceedings and less home repossessions. It would also have meant that the affected households would have more funds to spend on other goods and services. The households not affected by mortgage repayments would also have

⁶ <http://www.census.gov/prod/2008pubs/acs-09.pdf>

⁷ <http://www.census.gov/prod/2008pubs/p60-235.pdf>

had more money to spend on goods and services. A campaign to encourage the population to use the funds for “economic stimulus” consumption should have convinced most households to follow suit.

The above use of a 4, 3 and 2% was only to illustrate how an Economic Growth Incentive Method could work. If the EGIM system would be used, it is, of course, the prerogative of the legislature together with the Central bank to choose the appropriate level of cash advance for all individual households or for specific income categories.

3. The unblocking of pension savings

Pension savings in the U.S. and elsewhere have grown into a wealth element of considerable size. By the end of 2014, pension savings represented 25.1% of the total net worth of U.S. individual households. To put this in perspective, U.S. pension savings are now at a level equaling 1.175 times the nominal U.S. GDP of 2014, which was \$17.7 trillion.

In all countries where pension savings exceed or are close to the GDP level, like the U.K. and the Netherlands for instance, questions have been raised about the economic impact of locking in such large sums of savings without allowing some access at times of need. The U.K. has already gone the furthest. From April 6, 2015 U.K. pension savers can access their pension pots in cash rather than buying an income for life: the annuity route. Individuals can use their pension as a bank account, getting 25% of the money tax-free each time one takes cash out. Or the pension saver can take 25% in one lump sum and use the rest as a bank account. Pension pots can be transferred to relatives, often tax-free. Plans are underway to make annuities saleable, so that individuals can determine their need for cash more freely.

The U.K. system changes represent a pension revolution from going to total inaccessibility to substantial access in one go. However for the under 55s and for those in a Defined Benefit scheme who have started to withdraw, the lock remains in place.

The drawback of the U.K. system is that it makes individuals fully responsible for guessing their personal longevity and future inflation levels. When a mistake is made and the individual lives longer than guessed or inflation levels are higher than expected, he or she might end up in penury in old age. The second blockage in the U.K. system is linked with the age level of 55.

The proposal in this paper is to promote access to pension savings linked to the state of an economy, including the state of the personal economy of different income classes. An age limit would not be recommended as especially the younger savers might wish to have access when economic times are tough. The second consideration is to limit the overall withdrawal level and only open the opportunity for withdrawal again when economic times need it.

In the U.S. at the end of 2007 the pension savings level stood at \$13.4 trillion. Per the end of 2014 this savings level had risen to \$20.8 trillion.

The U.S. retirement savings system consists of four elements:

- The employer sponsored Defined Benefit (DB) plans
- The Defined Contribution (DC) plans
- The Individual Retirement Accounts (IRA) and upon retirement
- The Annuity plans.

As a consequence of the financial crisis in 2008, many companies had a fresh look at the risks that their company's DB plan constituted to the profit and loss accounts. A large number of these companies decided that such exposure was unacceptable and opted for supporting a shift to DC plans. The latter plans transfer all the investment risks to the individual, but are still supported by contributions from the employer's side. In the IRA's, the pension savers also carry the full investment risks.

In 2012 the composition of the total retirement savings system was that 38.2% was represented by DB plans, 28.2% in IRA's, 26.5% in DC plans and 7.1% in Annuities.

In many cases, apart from the Roth IRA schemes, pension contributions are, subject to some limits, tax deductible when the savings are made and tax liable when savings are withdrawn. The official retirement age in the U.S. for pension savings purposes is 70 ½ years. In the U.S. the impact on taxes as a consequence of deferring the tax liability on pension savings represents about 0.8% of GDP.

The proposal for a new economic policy tool is to make pension savings accessible, as and when needed, for counteracting an unacceptable deterioration in the debt-to-income and debt-to-home values situation.

The first question is for whom is this important. Young people aspiring or just starting to become homeowners; young and thereby often lower paid workers and the lower and middle class employees, they can all collectively incur debt levels that may constitute a threat to economic growth levels. None of them decide individually about the collective debt levels. Overfunding and the subsequent underfunding periods are not of their making. However these overfunding periods are very detrimental to household incomes and to the values of their savings levels. The economic facts of 2008 speak for themselves.

To correct the overfunding excess, which leaves individual households under a great stress to pay back their mortgage and consumer debt, a scheme could be developed which helps them to use some of the existing savings in pension arrangements.

To start with the macro details first: Over the last four years 2011-2014 about \$1trillion was added to pension savings every year. For the case of simplicity: assume the total mortgage debt is \$10 trillion with an average remaining maturity of 15 years and equal annual installments of \$667 billion plus interest of say 3.5% per annum which implies \$350 billion: a total sum of about \$1 trillion. Assume further more that, like in 2008, about half of this amount could have been repaid from household incomes; this left a gap of \$500 billion.

About \$200 billion could be covered through the EGIM method; returning about 1/5th of the annual pension savings could deliver about \$200 billion and about \$100 billion could be withdrawn out the home equity transfer scheme as will be described the next section.

For the collective DB schemes –provided that all schemes grow in line with their respective market size- 38.2% of the \$200 billion of the needed cash injection or about \$76 billion would need to come from these schemes. This represents about 20% of the annual DB pension inflows.

For DC schemes and IRA facilities they collectively need to make up the remainder \$124 billion.

Depending on the analysis of the urgency of the overfunding situation and the expected risks to the income levels of individual households, especially the ones with the highest relative debt levels (debt-to income levels), the U.S. government may consider to stimulate that DB, DC and IRA facilities may be used to withdraw funds to the extent as described above. Such withdrawal may be provided tax free to encourage pension savers to use the temporary withdrawal option. The option should be open to all pension savers in all forms of pension savings. The option period should be limited to a short period, say two months. After two months the option will be exercised for all those who have accepted the offer. The payout would be for DB schemes the \$76 billion needed, however no pension saver should claim more than the funds in their pension pot. For other schemes the system would work in the same manner.

The benefits of the scheme are the same as for the Economic Growth Incentive Method. The debt-to-income ratio correction can be applied when debts grow much faster than incomes. At the danger point, debts are fixed, so the only variable is to adjust incomes. The short term unblocking of pension savings is a possible alternative. Such unblocking provides cash to all savers who want or need to replenish their current income with an additional amount. Doubtful debtor levels will be less; economic growth will get an impulse and government borrowing needs to be less, as the economy will be performing better. The values

of the pension pot should not be affected by very much as share prices are likely to perform better, when economic growth drops less than the experience of 2008.

4. The unblocking of home equity

The \$11.3 trillion of owner's equity in household real estate constitutes the most illiquid of all assets households own. It is the ambition of many to live in their own home. The overfunding period has made this a distant dream for many young households. Due to overfunding in the period up to 2008, 5.8 million households lost their home through repossession during the underfunding period.

The overfunding symptoms were not corrected when they happened. However for future use it would be helpful if home equity could be made liquid as and when required for combatting the effects of underfunding.

Mainly life insurers have practiced the current method of turning home equity into cash. They offer home equity release schemes, based on life expectancy tables. Such cash is advanced at borrowed rates well above long term ones as the repayment of the debt depends on life expectancy of the homeowner and on the future sales price of the home once the owner has died.

For a number of reasons this system is unsuitable for anyone below 65 and the costs of it are relatively high.

Therefore the proposal is to set up a government owned housing institute that manages part ownership. The reason is that withdrawal of liquidity out of the owner occupied homes should be part of the set of economic policy tools to combat underfunding.

Such home equity liquidity scheme could work as follows:

Application of the scheme is based on the necessity to improve income levels at a specific moment in time, to be judged by government to correct an overfunding situation. It should be a temporary measure only, to be repeated as and when needed.

It could apply to all owner occupied homeowners with a mortgage outstanding. They could be offered the opportunity to swap a small percentage of their ownership to a government owned housing institute. The government would become co-owner with the private household. The Fed could provide the cash to the owner via the government institute. The homeowner would remain responsible for maintaining the property. In return for the cash, the home owner

could be liable in future years to pay local government a fixed “rent” of 3% of the amount outstanding, starting from the year after the cash withdrawal.

The part ownership is transferable to new properties if the homeowner wants to move. If the part ownership scheme had to be applied at several occasions the government ownership share should not exceed more than 50% of the property value at the time of the transaction.

Upon the death of the owner(s), the inheritors are liable to repay the outstanding government share of the property value back to the government institute for the funds to be returned to the Fed. Valuation of the government share could be based on the market value of the house at the time of sale.

If, in better times, the owner would like to repurchase his or her sold home-equity share, the costs of it should be fixed at the original amount plus an interest rate equal to the long term borrowing rate for the government. However the “rent” costs need to be deducted from these interest charges.

The proposal represents a macro-economic management tool; hence it cannot operate in the private sector. The funding mechanism is equal to Quantitative Easing with the difference that the debt is not government debt, but individual household debt based on property values.

5. Some conclusions

- Economic growth rates are based on the use of incomes for consumption and on the use of savings for assisting households in their operations. Companies use savings to fund their operations. The conversion of savings into debts helps governments and individual households to spend more than their incomes.
- The conversion rate of savings into debts varies over time.
- For individual households and governments the key variables are debt-to-income and debt-to-asset values ratios.
- When incomes grow less rapidly than debts, a period of overfunding starts; when debts are reduced compared to incomes an underfunding period occurs. Both are elements of the business cycle.
- Economic growth levels do not distinguish between incomes and debt based growth levels. Hence the necessity to monitor debt-to-income and debt-to-asset values developments.

- Monitoring in its own right is not sufficient if no action is taken to counteract overfunding or underfunding.
- In the U.S. the policy actions taken during the overfunding period from 1998-2007 included the use of the interest rate instrument. Regretfully the lowering of the Fed funds rate from over 6% in 2000 to 1% in 2004 only enhanced the overfunding trend. The subsequent increase to 5.25% in July 2006, which lasted to September 2007, took too little notice of the vulnerability of many of the sub-prime mortgage holders. Many of the latter had a below market interest rate for the first two years, after which a new market rate was applied. The inclusion of such mortgages in mortgage bonds made these bonds vulnerable to defaults. Liquidity for such bonds dried up in September 2007.
- In the underfunding period 2008-2014, the historically lowest Fed funds rate of 0.25% did not induce individual households to borrow more for mortgage funding, rather the opposite. From 2008-2014 households paid back \$1.2 trillion from their outstanding mortgage amounts. They did this out of their incomes rather than by refinancing.
- In the U.S. the deterioration in the debt-to-income levels and the debt-to-asset values was not stopped over the period 1998-2007. This left the debt levels fixed. The only sensible policy tools would have been to influence the income levels. This paper has set out three possible economic tools: the Economic Growth Incentive Method, the unblocking of a small part of pension funds savings and the unblocking of home equity
- Quantitative Easing and Keynesian induced government borrowings have not been included as neither of such policy tools focus directly on individual households and their debt positions. It was not the “money supply” but the “money supplied” to individual households that caused the crisis in 2007-2008
- Prevention of overfunding would have been desirable, but solutions to prevent underfunding causing such damage to incomes, employment and wealth levels need to be in place when the next economic business cycle occurs again.

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References

Federal Reserve Bank of St. Louis, B100 and B101 Balance Sheet of Households and Non-profit Organizations,

<http://www.federalreserve.gov/releases/Z1/current/accessible/b100.htm>

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

Kees De Koning: Overfunding and underfunding, a main cause of the business cycle? 5th March 2015, MPRA; <http://mpra.ub.uni-muenchen.de/62571/>

Executive Office of the President of the United States, Washington D.C. Office of Management and Budget, Table 2.1 Federal Receipts by source 1934-2016,

U.S. Census Bureau, Washington D.C. Jeffrey L. Barnett and others, 2012 Census of Government: State and Local Government Summary Report December 17, 2014, http://www2.census.gov/govs/local/summary_report.pdf

Board of Governors of the Federal Reserve System, Washington D.C., Quarterly Report of the Federal Reserve Balance Sheet Developments March 2015, www.federalreserve.gov/files/quarterly_balance_sheet_developments_report_201503.pdf

