

MPRA

Munich Personal RePEc Archive

Overfunding and underfunding, a main cause of the business cycle?

De Koning, Kees

3 March 2015

Online at <https://mpra.ub.uni-muenchen.de/62571/>
MPRA Paper No. 62571, posted 06 Mar 2015 08:09 UTC

Overfunding and underfunding, a main cause of the business cycle?

By

Drs Kees De Koning

3rd March 2015

Table of Contents

	Page
Introduction	3
1. Why has overfunding such a negative economic impact?	4
1.1 The overfunding process: the volume effects	4
1.2 The overfunding process: the quality standards	5
1.3 The overfunding process: why is it so destructive?	6
2. From overfunding to underfunding	8
2.1 Economic consequences of the switch to underfunding	9
2.2 Some conclusions	11
3. How to shorten the recovery period	12
4. The economic growth incentive method	14
References	16

Introduction

In 1946 the economist Arthur Burns defined a business cycle as a period of expansion occurring about the same time in many economic activities, followed by similar general recessions, contractions and revivals, which merge into the expansion phase of the next cycle. Cycles may take from one year to ten or twelve years. Milton Friedman argued that the concept of “cycle” was a misnomer as business declines are more of a monetary phenomenon.

In this paper it will be argued that the increase and decrease in individual household debts in the U.S., especially of the long-term variety of home mortgages, was responsible for causing the latest cycle period. It will be argued that the cycle started in 1998 when overfunding became apparent. “Overfunding” occurs when mortgage funds are not only used to build new homes, but also to cause house prices to exceed the CPI indexed levels. In 2004 and 2006 68% of all new mortgage funding was used to cause such excess and only 32% of the funding was used for building new homes.

The recession sets in when doubts arise about the ability of individual households to continue to service their long-term debts. Such doubts came into the open in 2007 when the liquidity for U.S. mortgage-backed securities dried up.

The contraction was characterized by a turn around from a lending expansion period to a forceful reduction in outstanding debt through foreclosure proceedings and home repossessions. The period of “underfunding” started. The contraction resulted in substantial job losses, income losses for households and a switch to use incomes to reduce debt levels. The latter set off the reduced demand levels for other goods and services. The households most affected were the lower and middle-income families, whose livelihood depends on income earnings rather than on the use and benefits of savings.

The tax revenues of the U.S. (Federal, State and Local) government were also seriously affected. The annual tax revenues dropped by \$1.5 trillion in fiscal year 2009 as compared to fiscal year 2007; a drop of 29%.

The Federal Reserve’s efforts to create a compensatory overfunding situation through Quantitative Easing: a \$4.2 trillion exercise in buying up government and mortgage bonds, did not directly address the financial pressures on individual households. It helped the savers, who saw their financial assets increase in values, but not the borrowers who saw their jobs disappear and income levels drop. In a way the rich got richer, but the poor got much poorer. Inequality was enhanced.

There is another way and this paper highlights the need to provide overfunding to individual households, once a recession sets in. Such method works directly, rather than indirectly, and shortens the contraction period. It also addresses the inequality issue.

1. Why has overfunding such a negative economic impact?

1.1 The overfunding process: the volume effects

In a recent paper: The evil force of borrowing and the weakness of Quantitative Easing¹, the use of long-term debt funding for the acquisition of homes by U.S. individual households was demonstrated.

Two elements stand out: the volumes of funds lend and the quality standards - lending criteria- applied to such funds provided.

From the Balance Sheet of Households and Non-profit Organizations as published on a quarterly basis by the Federal Reserve Bank of St. Louis², one can deduce the increase/decrease in outstanding U.S. mortgage amounts. In 1997 the increase was \$180 billion, by 2002 this amount was already nearly four times the 1997 increase at \$706 billion. The volumes increased further to \$1053 billion in 2005 and stayed high in 2006 with \$998 billion and in 2007 with \$701 billion. From 2008 the period of underfunding started as the increases turned to decreases that continued over the whole period to the third quarter of 2014.

1997 was chosen as the base year of comparison. The housing starts per 1 July of that year on an annualized basis were 1.437 million new homes. Per each new home the average debt incurred was approximately \$125,300, well below the median house price of \$145,900. In 1998 the level of the net increase in outstanding mortgage levels was \$301 billion, the median home price based on the CPI increase was \$148,234 and therefore the number of homes that could have been built would have been 2.031 million. The actual number of housing starts per 1 July 1998 annualized was 1.698 million. The overfunding process had started.

In 1998 the increase in mortgage amounts outstanding were no longer used to exclusively build more homes, but also to increase the price of existing homes above the CPI inflation level. In 1998 such applications of funds for the latter purpose only constituted 16.3% of the funds used. By 2004 and 2006 the use of funds to increase house prices above the CPI inflation level had gone up to 68% of all new funds applied. A different way to describe the impact of the volume increase in mortgage funding is to assess the number of homes that could have

¹ The evil force of borrowing and the weakness of Quantitative Easing by Drs Kees De Koning, 7th February 2015, <http://mpra.ub.uni-muenchen.de/61970/>.

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

been built if house prices had moved up with the CPI index. In 1998 the result would have been 2.031million new homes. Given that the need for new homes in the U.S. is around 1.8 million per annum, this would have meant an oversupply of homes. In actual numbers only 1.698 housing starts were made.

This potential oversupply increased practically every year from 1998 to 2005. In the latter year the increase in mortgage funds would have made it possible to build 5.925 million new homes if median house prices had followed the CPI index. The actual number of new housing starts in 2005 was 2.054 million.

A third way to describe the overfunding process is to calculate how much of the increase in mortgage money each year was applied to each new home start. In 1997 each new home start had an amount in new mortgage funding allocated to it of \$125,260 that was below the median house price in that year. It quickly rose to \$426,590 in 2002, to reach its maximum in 2006 with \$574,550. In 2007 it dropped somewhat to \$517,730 however still more than four times the amount needed in 1997.

One may draw the conclusion out of the above that the overfunding trend started in 1998 and did continue to 2007.

1.2 The overfunding process: the quality standards applied

Much has already been written about the U.S. sub-prime mortgage lending experience. In the previous section it was stated that the overfunding process started in 1998 and that by 2002 each new home start already required more than three times the amount of borrowed money as compared to the base year 1997. The overfunding process was already well on its way before 2004. The year 2004 is important as in this year the quality standards –the lending criteria- of granting mortgages were changed dramatically. The process was started to sell mortgages to lower income groups on basis of “attractive terms”. Such terms were low start up interest rates –the adjustable rate mortgages-, whereby for the initial two years interest charges were kept below real interest costs. Such rolling up of interest costs made it look to the mortgagee as if they could afford the mortgage payments. A second method was to require no down payment, a 100% mortgage of the amount needed to acquire a home. A third method used was to require no repayment element in the mortgage, often called an interest-only mortgage.

Of course, for these types of mortgages buyers were easily found. The risk profile of the lenders deteriorated with every new mortgage granted on the new terms. What should be remembered is that by 2008 the volume of such sub-prime mortgages had reached about \$1.2 trillion out of a total mortgage portfolio of well over \$10 trillion. The deterioration process started in 2004 when 18% of all new mortgages granted were sub-prime ones; this percentage

increased to 20% in 2005 and reached 21% in 2006. Before 2004 the percentage had varied between 8 and 10% of all new mortgages granted.

In 2004 and later years, banks, with the help of investment banks and the credit rating agencies, started to offload their mortgage portfolios to outside buyers: mutual funds, pension funds, high net worth individuals and even money market funds. This was done through the securitization process of mortgage-backed securities. All these buyers –both in the U.S. and abroad- were sold products that had elements of sub-prime mortgages in them.

The credit rating agencies often rated these securities as having an investment grade quality.

For the banks the process was attractive in that less equity capital was tied up in mortgage lending and new loans could be initiated. Banks also continued to run the administration of the sold mortgage portfolios; another source of profits.

For some investors the process looked too good to be true as U.S. insurance companies offered to insure the credit risks over the mortgage-backed bonds through credit default swaps.

Already in 2007 doubts began to appear about the quality of the mortgage-backed securities. On the 9th of August 2007 BNP Paribas suspended three of its funds. It declared that: “the complete evaporation of liquidity in certain market segments of the U.S. securitization market has made it impossible to value certain assets fairly regardless of their quality or credit rating.”

Investors and funds linked to investors depend on short-term liquidity to measure the value of a portfolio. Banks need an equity buffer to absorb potential losses, but investment funds do not require such buffer. Their value is based on daily quotations in the securities markets. Long term lending clashed with short-term liquidity considerations.

The lowering of the mortgage quality standards as applied from 2004 did worsen the overfunding process in two ways: (1) It accelerated the process of overfunding further and (2) By attracting funding from outside the banking sector, it had moved the goal posts away from banks -they needed an equity buffer to underwrite such mortgage risks- to investors who relied on daily assessments of such long term debt obligations without having the luxury of an equity buffer.

1.3 The overfunding process: why is it so destructive?

Why do borrowers borrow for the acquisition of a home? In nearly all cases such borrowers borrow because they do not have enough savings or income to pay for the acquisition outright. This puts borrowers in a disadvantaged group as

compared to wealthy households who can afford to pay cash for the purchase of a home. The wealthy households also include those who have had the benefit of paying back most of their mortgage already, usually the elder generation.

Usually, the elder generation has had the historic benefit of wages and salary growth in line or above the CPI index for an extended period of time.

This puts households with a high multiple of a mortgage loan to income in a strongly disadvantaged position. On a micro level this is the case because such a household needs a continuing and growing income level to pay back the debt and enjoy the benefits of economic growth. On a micro level newcomers to the housing market are worse off than those who had the chance to buy a property in earlier years, ever since house price rises started to exceed the CPI level. Overfunding requires a relatively higher and higher share of newcomers' income in order to buy a home, leaving less cash available for other purchases.

On a macro level, overfunding increases the risks over the whole outstanding mortgage debt. This is because the same level of income adjusted for CPI inflation does no longer buy the same number of homes; it increases house prices above the CPI level as well. The debt volume per new home goes up and exceeds the income capacity to service such debt levels. Risks go up!

The lowering of lending standards from 2004 onwards only added fuel to a simmering discrepancy between income levels and house prices. The macro economic mortgage portfolio risks were multiplied by adding lower quality products to the mortgage range at a time when much of the mortgage lending was already fuelling house prices to exceed the CPI inflation level.

The securitization of mortgage portfolios was executed at a time and in a manner that did not stabilize mortgage markets, but made such markets even more prone to collapse. Daily price setting for long term borrowing levels is rarely a good thing, but to do this with lower quality products included in such securities was asking for trouble and so it did. The trouble was compounded in that buyers were often misled about the quality of the securities.

The financial regulators left it to the financial markets to set standards for volume growth and quality control. Competition among banks does not lead to a managed volume pattern in macro lending levels. Collective management was needed but was not applied. Increasing the macro-economic risk profile through adding lower quality products was also left unchecked, as was the securitization process. No government agency managed the volume growth in the mortgage market or applied quality control measures.

The result was the 2008 economic collapse.

2 From overfunding to underfunding

Two things happen when mortgage debts are outstanding and are not fully being serviced any longer: (1) Banks go after the individual households who are in arrears, initially by starting foreclosure proceedings and secondly by going after the main asset: the home and (2) Banks tighten their lending criteria, when they expect a downward pressure on house prices.

The next table³ and table 2 can illustrate these facts.

Table 1 U.S. home foreclosure statistics and home repossessions 2004-2013

Year	Home Foreclosures Proceedings	Home Repossessions
2004	640,000	
2005	801,563	
2006	1,215,304	268,532
2007	2,203,295	489,000
2008	3,019,482	679,000
2009	3,457,649	945,000
2010	3,843,548	1,125,000
2011	3,920,418	1,147,000
2012	2,300,000	700,000
2013	1,369,405	463,108

Table 2 illustrates the drop in outstanding mortgage amounts over the period 2008-2014⁴.

Table 2 Annual change in outstanding U.S. home mortgage loans 2007-3rd quarter 2014

Year	Annual Change in outstanding mortgage liabilities x U.S.\$ billion
2007	+ 703
2008	- 33
2009	- 161
2010	- 504
2011	- 216
2012	- 193
2013	- 89
2014 End of Quarter 3	+ 12.4

³<http://www.statisticbrain.com/home-foreclosure-statistics/>

⁴ <http://www.federalreserve.gov/releases/Z1/current/annuals/a2005-2013.pdf>

According to U.S. market insiders, the house price boom ended in August 2005. From June 2006 to June 2009 median U.S. house prices dropped by 34%. In the paper mentioned earlier, in 2004 and 2006 the volume of funds allocated to fund house price rises above the CPI index had reached 68% of all new funding levels. Overfunding had reached its peak.

One may argue about whether the overfunding process or the securitization of home mortgage loans or the softening of lending criteria was the main reason for the switch from overfunding to underfunding. In the end the probability is that all three factors played a role, but that the volumes of mortgage lending and the softening of the lending criteria were most to blame. The securitization process was flawed in that credit risks were not properly recognized in the grading levels granted by the credit rating agencies.

2.1 Economic consequences of the switch to underfunding

In the paper: "The evil force of borrowing", it was calculated that over the period 1998-2007 overfunding the mortgage markets had added about \$4 trillion in mortgage debt, which was not used for the purpose to build new homes on basis of the CPI index.

When the doubtful debtor levels go up, the reaction of the fund suppliers is to go after the borrowers to settle outstanding debt levels and at the same time reduce the volume of new debt. At this stage the overfunding process has finished and the underfunding stage starts. Tables 1 and 2 showed the experience in the U.S.

There are a series of consequences of such switch in economic behavior.

They affect a number of economic variables both in asset prices and in income flows:

- The market values of household owner-occupied real estate;
- The market values of corporate equities held by individual households;
- The market values of proprietors' equity in noncorporate business;
- The level of unemployment and the labor force participation rate;
- The levels of income growth out of employment;
- The levels of tax revenues.

The market values of household owner-occupied real estate

Over the period 2006-2011 the market values of owner-occupied real estate came down from \$22.7 trillion in 2006 to \$16.1 trillion in 2011. This was a loss of \$6.6 trillion in market values. These losses are nominal losses and are not corrected for the CPI index. If the latter inflation levels had been incorporated in the data calculation, the losses would have been more substantial. From 2012 to the third quarter 2014 the upward trend resumed and the latest data end of 3rd quarter 2014 showed that such values have risen to \$20.4 trillion in nominal terms.

The market values of corporate equities held by individual households

The market values of corporate equities held directly by individual households stood at \$9.632 trillion as per the end of 2007 and was reduced in values to \$5.760 trillion as per the end of 2008. By the end of the 3rd quarter 2014 such values had improved to \$12.885 trillion. The actual equity holdings of individual households are more substantial than the direct holdings as pension funds and life insurance companies also hold equities on behalf of individual households.

The market values of proprietors' equity in noncorporate business

The market value of proprietors' equity in noncorporate business stood at \$9.341 trillion by the end of 2007. By 2009 it had reached its lowest level at \$6.481 trillion, to climb back up to \$9.188 trillion as per the end of the 3rd quarter of 2014.

The level of unemployment and the labor force participation rate

In the short period of January 2008 to October 2009 7.8 million Americans lost their jobs. With such job losses also comes an income loss, which is affecting the ability to continue servicing the debt levels that these individuals may have incurred. In 2007 the annual unemployment rate in the U.S. was 4.6%, by 2008 it had gone up to 5.8%. In 2009 it drastically increased to 9.3% and increased further in 2010 to 9.6% to drop back to 6.2% in 2014 and according to the January 2015 statistics it continued to drop to 5.7%.

What is also noteworthy is that the labor force participation rate has shown a steady decline since January 2007. In this month the rate was 66.4% and by January 2015 it had declined to 62.9%. In practical terms it means that fewer individuals of those able to work chose not to. In income terms it means less generation of incomes. In a recent paper: "Understanding the decline in the labor

force participation rate in the U.S.”⁵ five top economists (Steven Braun and others) have set out the main reasons for the drop in the labor force participation rate.

The levels of income growth out of employment

The pattern that income growth equals or outstrips the CPI index was discontinued after 2008. In 2013 the real median income level was 8% lower than the 2007 pre-recession level of \$56,435. What it means is that the changed pattern offered a lower ability to service nominal debts, when incomes grow slower than CPI inflation levels.

The level of tax revenues

When unemployment rates go up, when incomes grow slower than before, when the pressure to repay debts is jacked up and when new lending is slowed down, it all points to a recession. Tax revenues are closely linked to economic performance, so it should come as no surprise that tax revenues dropped after 2007. The total level of revenues for the U.S. Federal, States and local governments were \$5.170 trillion in fiscal year 2007. This level of revenues dropped to \$4.667 trillion in 2008 and a further drop to \$3.665 trillion in 2009. No government can lower its expenditure level by just over \$1.5 trillion or 29% in just two years; neither should it attempt to do so in the short run.

2.2 Some conclusions

The prime conclusion out of the above is that there is a clear difference between mortgage debt incurred by an individual household and the effects of an increase or decrease in the macro-economic mortgage debt levels. The difference is one of a time period. At a specific moment in time, an individual household buys a home at a market price. The individual cannot deal at past or future house prices. However over, say a year, the collective volume of funds allocated to mortgages can cause house prices to move above the CPI level. Income levels and house price movements diverge, which leads to greater risks over the collective mortgage portfolio.

A second conclusion is that the policy of benign neglect by the regulators, relying totally on self-regulation of the markets, was based on a misconception what financial markets can do. Banks and securities companies can achieve what no commercial company can do: by collectively lending more in a period they can achieve an increase in fixed asset prices (homes) above the CPI level and above the average income growth of individual households. If such divergence –the overfunding process- is not counteracted the risks to incomes multiply and ultimately the doubtful debtor levels will cause the reverse movements.

⁵ <http://www.voxeu.org/article/decline-labour-force-participation-us>

A third conclusion is that when doubtful debtor levels start to increase, mainly do to overfunding and lowering the credit risk parameters, the whole process is turned around into an underfunding situation. Unemployment levels increase, the labor force participation ratios decline, average household' incomes drop relatively to the CPI level and tax revenues decline.

A fourth conclusion is that worldwide government debt levels can show many similarities to mortgage debt. After all individual households carry the main responsibility for maintaining the level of tax revenues. Government debt is of an even longer nature than mortgage debt.

A fifth conclusion is that Quantitative Easing as was applied in the U.S. and the U.K. and is started up by the ECB works as a slow medicine to counteract the onset of underfunding. Buying up government bonds and in the case of the U.S. also mortgage bonds does not relieve individual households from the pain of absolute and relative income reductions. As shown in above tables the U.S. recuperation period has taken nearly six years, rather than one or two. A different form of QE could have been applied.

A sixth conclusion is that in a debt recovery period, lowering of interest rates does not improve the creditworthiness of individual households. They are in no position to take up more credit. Over the period 2008-3rd quarter 2014 individual households reduced their outstanding mortgage loans by \$1.2 trillion. This fact shows how ineffective the lowering of interest rates has been for individual households.

3 How to shorten the recovery period

With the benefit of hindsight, it becomes easier to outline not only what has gone wrong since 1998, but also what did not work as fast as might have been expected.

Firstly the dogma that financial markets can control themselves, as promoted by business insiders, turned out to be a wrong dogma. The reasons are that competition among banks, investment banks, Fannie Mae, Freddy Mac and many near-banks, does not lead to volume control in mortgage lending. A single financial institution cannot address the implications of overfunding.

Secondly competition among banks as well by state sponsored enterprises such as Fannie Mae and Freddy Mac can lead to downgrading risk levels in order to attract customers. This was clearly the case with the introduction of sub-prime mortgages. The timing was wrong: the increased speed of the sales of such products was at a time when overfunding had nearly reached its peak already.

Thirdly the process of securitization went wrong as good and poor credit risks were mixed up to attract investors. Investors were often misled by the credit rating agencies or by the sales personnel of investment banks.

The overall conclusion is that the process of overfunding went on uninterrupted as no U.S. financial regulator had overall oversight and control.

This leads to managing the downward process of the underfunding situation.

Mortgage funding requires a long-term commitment of the buyer. From 2008 onwards, the lowering of short term interest rates or even long term ones did not help existing mortgage holders who were under pressure to repay their debts. Many mortgage holders were in no mood to increase borrowings and banks were in no mood to lend either, with house prices falling, unemployment levels increasing and income growth prospects receding. As mentioned the volume of mortgages outstanding decreased by \$1.2 trillion over the period 2008-3rd quarter 2014.

The response of the Fed in overfunding the financial markets in government and mortgage bonds did influence financial asset prices directly. What it did not do was to influence income levels, especially of those who had recently borrowed funds to buy a home.

The \$4.2 trillion cash injection into the financial markets had the effect of lowering interest rates to very low levels. The beneficiaries of these injections were the holders of financial assets; the banks, the hedge funds, some pension funds and other fund management vehicles. Individual households, who borrow, usually have a low level of savings. They are the lower income classes, who have to rely on incomes alone rather than on incomes out of savings.

The benefits of QE to the savings groups did not filter through to the borrowing public; they are different sections of the population. The income inequality gap was widened rather than reduced.

There is another option: the direct option. Once it was clear that the underfunding period had started, the decision could have been taken to provide a fixed amount of cash for each U.S. household to be paid out annually over three years. How such injection could have worked is explained in the next section.

4 The economic growth incentive method (EGIM)

The analysis in this paper has led to the conclusion that since 1998 excessive levels of mortgage debts added by sub-prime lending standards were the causes of increasing risks levels over the total outstanding mortgage portfolio. The higher risks invoked more doubtful debtors. The shift from higher to lower lending levels and the efforts to get outstanding debts repaid as soon as possible, led to the economic and financial crisis of 2008.

At the turn from overfunding to underfunding, the problem was not one of assets or their valuations, but of incomes: the income levels of the borrowers. The key factor was the uncertainty about the ability of borrowers to keep up their debt service levels.

The underfunding cycle affects all households. Therefore to be fair to the whole U.S. population, a cash payment of a fixed amount to all households would benefit each household. Proportionally the lower income classes do benefit the most.

The EGIM method could work as follows:

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.

What would have happened is that 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.

The 2008 cash injection would have implied a 1.61% growth incentive, as the GDP for the year was \$14.72 trillion. However the consumption multiplier and the changed perception about doubtful debtors would likely have made the results more significant.

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

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

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

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.

What is important in the EGIM method is that lower-income families are helped much more percentage wise than the better off ones. This makes perfect economic sense, as the lower-income families are the ones who generally suffer most from a recession period. What is also important is that the EGIM method focuses on the cash shortfall that borrowers experience, through no fault of their own, when lenders collectively provide excessive lending levels, which causes house prices to rise in excess of the CPI inflation level.

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 mean that the affected households would have more funds to spend on other goods and services. The households not affected by mortgage repayments would have more money to spend on goods and services. A campaign to encourage the population to use the funds for “economic stimulus” consumption should convince 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.

The United States has already gone through their adjustment period of 6 years since the start of 2008. Europe and especially the Eurozone have not adjusted yet. The EGIM method is not only applicable to the U.S. for future use, but can be applied by the ECB for all Eurozone countries.

The effects of a government debt crisis, like the one in Greece, should also be considered in the light of an overfunding-underfunding cycle, whereby the individual households are clearly the underfunded people in the country. Helping these households with a cash injection will do wonders for economic growth and for government finances. Restructuring government debt does not necessarily need to mean forcing a country into an economic decline.

Drs Kees De Koning
Chorleywood, U.K.
3rd March 2015
E-mail: keesdekoning008@hotmail.com

References

- The evil force of borrowing and the weakness of Quantitative Easing by Drs Kees De Koning, 7thFebruary 2015, <http://mpira.ub.uni-muenchen.de/61970/>
- Federal Reserve Bank of St. Louis, B 100 Balance Sheet of Households and Non-profit Organizations, historical data
- Statistic Brain website; home foreclosure proceedings statistics and home repossessions 2004-2013
- Vox Center for Economic Policy Research, Understanding the decline in the labour force participation rate in the United States, by Steven Braun, John Coglianesi, Jason Furman, Betsy Stevenson and Jim Stock, 18th August 2014
- United States Census Bureau: historical median households income data and number of individual households.

Tables

- Table 1: U.S. home foreclosure proceedings and home repossessions 2004-2013
- Table 2: Annual change in outstanding U.S. home mortgage loans 2007-3rd quarter 2014