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Home Equity Savings reinforced each
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The U.S. Great Recession experience:

The reasons why losses in jobs and

in home equity savings reinforced each other.

By

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Introduction

In a previous paper: “Quantitative Easing Home Equity: an Alternative Economic Management Tool” (MPRA Paper 106528), the writer did analyze some of the Great Recession’s experiences for different groups of U.S. households. In Q4 2005, the home equity level stood at \$14.4 trillion for all households. As a result of the Great Recession this level dropped to \$8.2 trillion by Q1 2012. This loss in wealth level lasted the longest for the bottom 50% of households. For this group it took over 10 years which was nearly 5 years longer than for the two household groups making up the top 50% of households. The latter groups took five years to get back to the income and wealth levels as assessed in 2007.

Why was losing \$6.2 trillion in home equity savings over the period Q4 2005 to Q1 2012 such a disaster?

The first aspect is the value of savings made and the recovery period to earn back such savings losses. A savings loss of 43% on home values was an extreme percentage of losses, mainly due to two factors. The first was the reinforcement factor. When doubts crept into the mortgage backed securities markets in 2007, the snowball started rolling. Banks and other financial companies as well as some households were over extended. Defaults started to go up and the mood in the markets turned from overly optimistic to severely negative. Foreclosure levels were racing up and unemployment levels increased rapidly.

The second aspect was the relationship between house prices and the home equity savings levels embedded in such home values. A home is for nearly all households a necessity rather than a luxury. If a household cannot afford to buy outright, a mortgage is often needed as the household will still need a place to live in. The downward housing prices –from a U.S. average of \$257,400 in Q1 2007 to the bottom of \$208,400 in Q1 2009 and back to \$258,400 by Q1 2013 brought on a misery for many U.S. households.

This paper will attempt to show that there can be a different solution to such market upheaval: a reversal method that helps households to spend more of their home equity level when needed. The household’s macro economic motto could be: “Save in good times and spend from your home equity in economic downturns”. To make it a success, a system needs to be developed to make such spending possible.

1. The U.S. home equity versus home mortgage balance.

Going back to Q1 1980, the average U.S national home equity¹ to mortgage level² showed a ratio of 2.22 to 1. This ratio indicates that the net asset value of the housing stock was 2.22 times the level of the combined outstanding U.S. home mortgage levels. By 1995, the ratio had dropped to 1.580. It more or less stayed at this level till 2006. From 2007 it continued to drop to 2012 when it reached the lowest level in over 30 years of 0.842, which implied that home mortgage debts of \$9.727 trillion were larger than the home equity levels; the latter were \$8.214 trillion at the time. The latest date for Q4 2020 show a much-improved level of 1.930. In appendix 1 (attached) these data are shown from 1980-2020.

In a previous paper (MPRA paper 106528) the effects of the Great Recession on the balance sheet of households were examined. Several conclusions were drawn. The first one was that the top 10% of households by wealth levels did overcome the effects of the Great Recession over a five-year period from Q1 2007 to Q1 2012. The second one was that the 50-90% group of households by wealth levels took six months longer and restored their wealth level by Q3 2012. However, for the bottom 50% of households their adjustment period to get back to the pre-Recession level took five more years.³ They only managed to get their wealth level back to the pre-Recession level by Q1 2017. By Q4, later in the same year, the number of unemployed had dropped to the same number of unemployed as in May 2007.

It is a normal pattern in most economies that the wealthier households rely less on monthly incomes out of employment than the lower income groups. For the latter, jobs are often the only source of income generation and their collective savings levels are very low compared to the top 50%.

These patterns could be illustrated by the developments in the Wall Street Dow Jones industrial share index.⁴ On 1 October 2007, the index reached a high point 13,797. On 2 February 2009 it reached a low point of 7,062. On 2 January 2013, the index had risen back to 13,860, basically showing that individuals who had followed the index would have recovered their losses made since 2 February 2007. This development closely coincides with the fact that the top 10% of U.S.

¹ <https://fred.stlouisfed.org/series/OEHRENWBSHNO>

² <https://fred.stlouisfed.org/series/HHMSDODNS>

³

<https://www.federalreserve.gov/releases/z1/dataviz/dfa/distribute/table/#ra>

⁴

<https://www.bing.com/search?q=wall+street+industrial+share+index&form=PRGBEN&httpsmsn=1&msnews=1&refig=6b3e259e38b44190833acb5e1bd54564&sp=1&q=HS&pq=wall+street+&sk=PREs1&sc=8-12&cvid=6b3e259e38b44>

households had recovered their wealth levels by Q1 2012 and the second tier of top 50-90% of households by Q3 2012. However for the bottom 50% of households, the developments in the Wall Street industrials index meant very little for their wealth levels. The latter group was and is heavily dependent on employment levels.

For the bottom 50% of households by wealth level, their economic survival rests primarily on their ability to have or find a job.

What are the implications for economic policies?

The first one is that economic policies of one-size fits all for all U.S. groups of households are not consistent with the actual economic history of different income and wealth groups. The lower household income levels as represented by the bottom 50% of U.S. households, are simultaneously the group that battled for the longest time period to get its income and wealth levels back. For this group it took over 10 years to do so, while for the top 10% it took “only” 5 years.

U.S. policy makers might have considered which measures would have helped the lower income groups to overcome the effects of the 2007/2008 recession in a faster manner. Such measures would not only have helped the bottom 50% of households, but equally importantly all other households as well. More jobs and higher disposable income levels for the bottom 50% of households would have led to a higher level of consumption spending, higher profits for companies and higher tax revenues.

A key element in the policy consideration is to analyze the impact that various policies have had on different income and home equity groups.

2. Circumstantial evidence

In order to be able to formulate some possible policy options, one must first assess the circumstances under which such options could work.

Starting with the bottom 50% of U.S. households, there are three key components of wealth creation: 1. Having a job; 2. Owning or renting a property to live in; and 3. Having pension assets. Simultaneously the household may have liabilities such as student loans, consumer debts and mortgage loans.

As a result of the Great Recession, the U.S. government experienced some fundamental changes. In FY 2008 it received \$2.52 trillion in tax receipts⁵. In

⁵ <https://www.thebalance.com/current-u-s-federal-government-tax-revenue-3305762>

2009 this level dropped to \$2.10 trillion, followed in 2010 when receipts became \$2.16 trillion. In 2011 it increased slightly to \$2.30 trillion; in 2012 it reached \$2.45 trillion and only by 2013 did the tax receipts rise to a level of \$ 2.77 trillion, when the tax income levels exceeded the 2008 level for the first time. These are nominal amounts not corrected for inflation levels.

The decisions taken by the Federal Reserve changed the sources of financing for U.S. government expenditure in a dramatic manner.

On September 10, 2008 the Fed's balance sheet showed an outstanding level of \$921.7 billion.⁶ By December 25, 2013 the Quantitative Easing (QE) activities had increased the Fed's balance sheet activities to \$4.032 trillion.

The recent corona virus pandemic moved the Fed to increase its balance sheet even further. As of May 21 2021, the outstanding balance sheet level reached a new record of \$7.923 trillion, mainly due to QE activities.

The U.S. Federal government expenditure levels during the Great Recession period were:⁷ Q1 2007 \$2.873 trillion; by Q1 2009 they were \$3.275 trillion and by Q1 2013 they were \$3.755 trillion. Its combined budget deficit for the period 2007 to Q1 2013 was \$ 5.540 trillion⁸. One may conclude that the funding of this deficit was funded for some 54% neither by taxpayers nor by borrowings on capital markets but by QE from the Federal Reserve.

The question could be raised: Could there have been other options?

In the above, the outlines of the fiscal policies were already explained. The Federal Government's deficit over the period 2007-2013 was covered by Q.E. for some 54% of its deficit and for 46% by additional government borrowings.

The second aspect concerns the development in the effective Fed Funds Rate⁹. In December 2006 the Fed Funds rate stood at 5.17%; by December 2008 it had been lowered to 0.14% and by January 2015 it was still only 0.15%. Even now, in 2021, the rate is still around 0.15%.

One may conclude that the \$5.540 trillion government expenditure level over the period 2008-2013 that was not covered by tax income was the response of the Federal Government to the Great Recession period. Could the U.S. government have done things differently?

⁶ <https://fred.stlouisfed.org/series/WALCL>

⁷ <https://fred.stlouisfed.org/series/FGEXPND>

⁸ <https://fred.stlouisfed.org/series/FYFSD>

⁹ <https://fred.stlouisfed.org/series/DFE>

A possible answer does not necessarily need to come from more government deficit funding, nor from lower interest rates, but from using existing savings built up by households in the form of home equity.

3. Using home equity savings as an economic policy tool.

The concept that a loss of \$6.2 trillion in home equity levels is the effect of market movements alone needs to come under serious scrutiny. To accept that market forces were the main cause of the Great Recession and that such economic behavior is normal under a freedom of enterprise label needs to be revisited. Households were never consulted on whether their home mortgage obligations could be packaged and sold to the international financial markets. As is often the case bad debts do drive down the quality of good debts. U.S. home equity levels came under severe downward pressure from 2007 onwards, leading to a sharp drop in new housing starts, a serious drop in house prices and a market adjustment by focusing on recovering outstanding mortgage debts. Substantially higher unemployment levels were the result of the debt based adjustment process.

What was not considered in the adjustment process was a focus on home equity and how such home equity levels could have temporarily helped to correct the squeeze on consumer expenditure levels.

The Great Recession may have had a multiple of causes, but the key was that many participants in the U.S. financial sector acted not in the interest of the homeowners nor in the national economic interest, but purely in their own self-interest; this interest can be best described as protecting their own revenue flows.

3.1 Why and how home equity can be used to reverse a downward spiral.

It should be clear from the above quoted data that the self-interest of the U.S. financial sector was to protect itself from the home mortgage loan losses. Was there another option? A possible solution is to think differently about the liability levels compared with the asset levels. In other words, whether the policy approach should focus on the mortgage loan side rather than on the home equity savings side.

The amazing effect of focusing on the home equity side and helping households to use such home equity when macro economically such stimulus is needed, not only helps savings to keep their values, but equally helps households to consume more, rather than less in times of economic stress. This, by itself, reduces U.S.

government's deficits, increases profits for businesses and thereby creates jobs and does not undermine the values of households' homes to any significant degree.

Why has such approach not been practiced? The simple answer was and is that the U.S. free market philosophy has allowed the liability side to get the upper hand over the home equity savings side. Another reason was that there was no alternative scheme in place that could have been considered.

A home equity savings based scheme needs two pillars: a funding scheme and rules based system. To start with the funding scheme, the Federal Reserve could consider to use its QE scheme for this purpose but in a different variant: QEHE (Quantitative Easing Home Equity). Such scheme implies that savings in personal home equity can be temporarily used as a source of cash to spend on the consumption of goods and services. Such spending may not include the acquisition of stocks and shares. The advances made to households would be temporary and households need to sign an agreement, preferably with one of the state owned mortgage companies, like Fannie May and Freddie Mac. The funding for the temporary conversion of home equity into cash can be done by the Fed, which could buy up bonds issued by these two institutions. The risks exist that some households after having received a share of their home equity in cash do not resave such sums as and when requested. This hurdle could be overcome by establishing a shared equity level for the government that could be enforced on a future sale date or death of the owner(s). After the period of stimulus has come to an end, those households that do not "Re-Save" in line with the terms of the outstanding facility need to be faced by market level mortgage rates.

The U.S. government could also fund the costs of the administration charges for Fannie May and Freddy Mac and others, so that participants in the scheme can receive the funds as cash without any costs deducted. In the previous paper (MPRA paper 106528), some other conditions have been spelled out.

3.2 The potential economic benefits of focusing on home equity savings, rather than on the home mortgage loans.

One further element that needs to be considered is the U.S. government debt to GDP level¹⁰. Starting from Q1 1980, the level of U.S. government debt to GDP was 30.94% of GDP. Over a period of 12 years, the level doubled to 60.99% by Q1 1992. Between Q1 1992 and Q1 2005 the level practically did not move in 13 years as it recorded a level of 60.94% of GDP in Q1 2005. By Q4 2007 the level had slightly increased to 62.86%. As a consequence of the Great Recession and the current corona virus pandemic the latest data (Q1 2021) show a government

¹⁰ <https://fred.stlouisfed.org/series/GFDEGDQ188S>

debt to GDP level of 127.52%. This represents another doubling of government debt relative to GDP level.

Again, just like in the case of the Great Recession, the adjustments chosen were to expand government borrowings rather than use private households home equity savings.

Government borrowings imply that in future years all households, be they individual households or corporates or banks, will see their income levels reduced due to a transfer from the private sector to the government. As has been noted, the current level of U.S. government debt to GDP is already four times as high as in 1980. Just to compare the nominal GDP in 2007 with the nominal GDP in 2019¹¹, shows that the nominal GDP grew from \$14.452 trillion in 2007 to \$21.433 trillion by 2019. This represented an increase of 32.6% in nominal terms. At the same time U.S. government debt levels grew from \$9.008 trillion in 2007 to \$22.219 trillion in 2019; an increase of 246%.

As taxes need to be paid -now or in future- out of nominal GDP levels, one may conclude that the gap between economic growth as expressed by the nominal GDP levels and the future claim on such economic growth in order to reduce U.S. government debt levels to sustainable levels over time, has widened substantially.

3.3 The help to buy scheme on basis of home equity.

The main reason to devise a “help-to-buy” scheme on basis of own savings in home equity is that such scheme does not incur any costs other than a temporary reduction in home equity savings levels. Households can chose to participate in the scheme: a freedom of choice method. Making cash available out of savings is already a well-accepted method for many households. The benefits of the recent U.S. government “Help to Buy” scheme are directly linked with the individual household, while taxation in general is an income transfer system between households and companies to the government and may not help the financial position of most; rather the opposite.

Some of the latest U.S. government initiatives were a “help-to-buy” scheme. Of course, the incentives have worked, as any income transfer to the lower and middle-income households has lead and will lead to a higher consumption level. One may, however, question how often such actions can be repeated in future in view of the already high levels of outstanding government debt.

¹¹ <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=US>

Using home equity as a source of funding for economic expansion has three advantages over the existing government sponsored schemes. Firstly it is based on existing home equity savings levels incorporated over previous years. Secondly it concentrates on private households and allows their decisions to be taken into account. Thirdly it gives the U.S. Government still all the powers as to decide when and for what group of households to open the scheme and when to close it again.

To summarize the flow of funds: a U.S. household applies to become a participant in the “Help-to-Buy” scheme. Applications could be sent to any participating government agency such as Fanny May or Freddy Mac. The latter agencies check the status of the applicant; is the amount requested within the standards, for instance does it not bring the home mortgage level to less than 10% of the home value? The Fed could provide funding with QE for the state sponsored agencies. The government has the power to decide the dates that it wants to stop expanding the scheme and starts the “Re-saving period of Home Equity” again. Upon approval, the household receives the money transfer. Re-saving will only start when the U.S. Government decides that the economy needs less spending and more savings.

The key to a possible success of this type of “Help-to-Buy” scheme is that households drive it; mainly from the income groups of modest and middle-income classes. The scheme does not need additional tax payments in the current or in future years. The scheme can be fully managed by the Government. It will help to shorten recession periods, thereby increasing tax receipts not by changing the tax rates, but by creating higher growth rates. Higher employment rates are also the likely result of the scheme.

The question is: “Why not?”

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Table: U.S. home equity and home mortgage levels from1980-2020

Home Equity (HE) U.S. Dollar Trillion	Outstanding Home Mortgage level(OHM) U.S. Dollar Trillion	HE:OHM %
Q1 1980 \$ 1.908	\$.860	2.22
Q1 1985 \$ 3.031	\$ 1.316	2.30
Q1 1990 \$ 4.763	\$ 2.341	2.03
Q1 1995 \$ 5.060	\$ 3.203	1.58
Q1 1996 \$ 3.396	\$ 3.396	1.52
Q1 1997 \$ 5.385	\$ 3.597	1.50
Q1 1998 \$ 5.702	\$ 3.834	1.49
Q1 1999 \$ 6.289	\$ 4.162	1.51
Q1 2000 \$ 7.134	\$ 4.524	1.58
Q1 2001 \$ 8.681	\$ 4.930	1.76
Q1 2002 \$ 9.572	\$ 5.488	1.77
Q1 2003 \$10.297	\$ 6.209	1.66
Q1 2004 \$11.354	\$ 7.099	1.60
Q1 2005 \$13.091	\$ 8.080	1.62
Q1 2006 \$14.213	\$ 9.227	1.54
Q1 2007 \$13.755	\$10.123	1.36
Q1 2008 \$11.814	\$10.694	1.11
Q1 2009 \$ 9.691	\$10.577	0.92
Q1 2010 \$ 8.949	\$10.317	0.87
Q1 2011 \$ 8.497	\$ 9.958	0.85
Q1 2012 \$ 8.214	\$ 9.727	0.84
Q1 2013 \$ 9.848	\$ 9.504	1.04
Q1 2014 \$11.231	\$ 9.417	1.19
Q1 2015 \$12.671	\$ 9.387	1.35
Q1 2016 \$14.025	\$ 9.511	1.47
Q1 2017 \$15.666	\$ 9.734	1.61
Q1 2018 \$17.113	\$ 9.993	1.71
Q1 2019 \$18.750	\$10.263	1.83
Q1 2020 \$19.777	\$10.572	1.87