The U.S. experience, Free markets in money: a contradiction in terms!

De Koning, Kees

14 August 2015

The U.S. experience,

Free markets in money: a contradiction in terms!

By

Drs Kees De Koning

14th August 2015

Table of contents **Page**

Introduction

In the U.S. individual households have the freedom to borrow funds if they need to do so; other households have the freedom to offer their surplus funds to the financial markets. These simple freedoms hide the fundamental reality that these two types of households are in an unequal financial position. Borrowing means that future income levels will be needed and used to repay outstanding debt levels. Savings means that additional income out of savings is added to income levels in future. The borrowing households, nearly always the lower and middle-income classes, face the loss of their homes or seriously reduced income levels if they can no longer afford to repay outstanding debts. The saving households, usually the better off classes, might see their income out of savings reduced, when economic times become tougher, but face less risks over their principal income.

In this paper over the period 1997-2008, the actual mortgage lending patterns of U.S. banks, including Fannie Mae and Freddy Mac, have been studied. Such patterns reflect the supply side of money for this particular use. On the other hand the paper has elaborated on a "need for funds" approach. This need for funds reflects the demand side of funds based on two factors: the physical need for shelter and the long-term ability to repay outstanding mortgages out of current income levels. The U.S. needs about 1.8 million new homes annually. The mortgage borrowers need to see their income growth more or less in line with house price developments in order to sustain debt servicing.

The supply side of mortgage funds, represented by the banking and financial markets sectors, is based on different parameters than for the demand side. For the supply side the availability of funds, the profit motive, competition and regulatory controls are the most important.

Regretfully, over the period 1998-2007, the powers of the supply side overwhelmed the "need for funds" approach. More mortgage lending can create more homes being built, but it can also force house prices up faster than the income growth levels of the lower and median income classes. The financial regulators did not see this as a threat until it was too late. The balance of power had swung too strongly in favor of the banks, rather than to the borrowers. The supply motives drove the equilibrium further and further away until breaking point.

In future, one may need to ensure that the "need for funds" approach prevails over the supply side.

As this was not done, the effects of the financial crisis were devastating. 22.1 million households faced foreclosure proceedings over the period 2006-2013 or one in six households. 5.8 million homes were repossessed. Between January 2008 and October 2009 7.8 million individuals lost their jobs. In 2013 median households incomes were 8% lower in real terms than in 2007. The government added an extra $7.7 trillion to its debts as a consequence of the financial crisis. The Fed bought about $4.2 trillion in government bonds and mortgage-backed securities. Mortgage borrowers repaid on a net basis $1.24 trillion of their outstanding mortgages over the period 2008 to first quarter 2015. The future is not all bleak. Unemployment rates are substantially down. Median

income levels are improving and house prices according to the needs for funds approach are currently in line with actual house prices.

1. The free market philosophy

1.1 The free market principles

A free market is defined as a system in which the prices of goods and services are set freely by consent between buyers and sellers. The system is supposed to be free from any intervention by a government, price setting monopoly or other authority.

A free market economy is a market-based economy, whereby prices of goods and services are set freely by the forces of supply and demand and are allowed to reach equilibrium without intervention by government policy.

1.2 Money and the free market principles

Rather than observing worldwide differences, this paper will focus on the experiences of the United States.

In the U.S. individual households are free to borrow money as well as free to save surplus funds. In this one sentence the money contradiction clearly appears. The households wishing to borrow funds are different households from those that offer surplus funds to the market. Not only that, but households wishing to borrow have to compete for savings with the largest borrower of all: the U.S. government. They also have to compete with companies, as the latter require substantial financial resources to run their operations. Furthermore the U.S. dollar is widely used by borrowers and savers outside the United States.

The markets for the supply and demand for money are distorted in that many intermediaries exist and a lot of complex financial products have been developed. Both the existence of many intermediaries, each with different roles to play, and their subjective decisions on risk pricing obscure the overall price setting. Many financial products are based on gearing mechanisms, mixing up low own savings levels with a high level of borrowings. Therefore there are many prices for money, which are not based on supply and demand but based on subjective risk assessments.

The regulatory framework also complicates the picture. The Fed, the state bank's and the security markets regulators all take responsibility for overseeing a part of the banking and security organizations. On top of this the Fed sets its base interest rates and since 2008 it decided to enlarge the volume of money in circulation, through its quantitative easing programs.

The real element that sets money apart from all other goods and services is that in acquiring such other goods and services a price is set which reflect costs and profit

margins. The price of such goods and services are based on known factors. Of course investments in capital goods, which require a number of years to earn their capital input back, may lead to some errors in judgment about how fast such earnings may come in.

In the case of money the future is unknown. Whether it concerns the available level of savings, the costs of borrowing, the future repayment abilities, the state of the economy and the regulatory restrictions put on banks and other financial institutions, no clear guidance can be found from current data. Therefore the current price(s) of money provide no guidance to future developments.

The occurrence of the 2007-2008 financial crisis was mainly due to the fact that bank profits in the run up to the crisis did not reflect the risks that had been taken. The crisis was aggravated by the packaging and sales of (doubtful) mortgage risks to outside investors. It was also due to the lack of appropriate action by the financial regulators to act when the danger signs were up and running.

In a paper: "Debts should come with a serious economic health warning!"[1], it was explained that in the U.S. over the period 1997-2007, the volume of home mortgages granted far exceeded the need for funds. The U.S. has a finite need; it needs to build about 1.8 million homes annually for its growing population and for its changes in the type of desired family residences. In the paper it was argued that the need for funds is closely related to the growth in average household incomes. The paper demonstrated that the supply of funds was excessive already starting in 1998 and it continued all the way to 2007.

Why make a distinction between the need for funds and the actual supply of funds? The need for funds is and should be related to the growth in household's income levels. It is based on long-term affordability levels. The need for funds reflects a demand level for funds, which U.S. individual households can collectively afford to service out of their incomes over long periods of time.

The supply of home mortgage funds is influenced by a series of other factors.

Firstly the annual savings levels and the level of accumulated savings play a key role in whether banks and the financial services companies have money to lend. A recent IMF study[2] showed that the conventional asset managers in the world were managing $75 trillion of savings, equal to about 100% of world GDP. These are conventional asset managers only and they do not include all other suppliers or intermediaries in the savings process. The concept that the world, or the U.S. in this specific case, is running short of savings cannot be retained against overwhelming evidence to the contrary.

[1] http://mpra.ub.uni-muenchen.de/65647/
[2] http://www.imf.org/external/pubs/ft/survey/so/2015/POL040815B.htm

Secondly banks are profit-based organizations.

For instance, in 2001 the Fed lowered its base rate from 6% on January 3 2001 to 1.75% on December the 11th of the same year. This was done, among other considerations, as a consequence of the dot.com bubble that caused investors to lose some $5 trillion in savings values.

What, in 2002, did this interest rate picture do to the reported profit levels of banks involved in mortgage lending? U.S. banks, but also banks in general, report their profits on a quarterly or semi-annual basis. Net interest income is set off against the provisions for doubtful debtors as experienced over the period. When interest rates dropped as substantially as they did in 2001, in 2002 the banks' credit risks over their home mortgage customer base were perceived to be lower. Unchanged incomes can absorb higher mortgage amounts when interest rates are reduced. Secondly the values of existing homes were growing rapidly, which improved the loan to value rates. As a result over 2002, U.S. banks reported strongly improved net income levels from the home mortgage product line.

Under these circumstances would U.S. banks have been induced to sell more or fewer home mortgages in later years? The growth in the annual volume of outstanding home mortgages showed that banks sold higher and higher volumes of mortgage loans. Over the years 2002-2007 the U.S. Balance Sheet of Households and Nonprofit Organizations[3] demonstrates this fact eloquently. For instance in 2005 the net increase in outstanding U.S. mortgage financing had grown by 35% as compared to 2002. In 2006 it was 49% above the level of 2002. One should note that in 2002 the increase in outstanding mortgage amounts was in itself 3.9 times the 1997 level.

The banks' profit motives drove the lending machine further and further away from the equilibrium position, which would have been that over the years 1997-2007 incomes, mortgage loans and house prices should have grown more or less in tandem.

Over this period, borrowed money was used to a larger and larger percentage of the total annual mortgage borrowing levels to inflate house prices faster than the growth in average household incomes. Added to this was the aspect of home equity withdrawals. Especially over the period 2005-2007 major home equity withdrawals took place.

Thirdly it will be clear that a change in the Fed's interest rates will have an effect on the ability of individual households to support the servicing of their outstanding mortgage debt.

In the above example of the 2002 bank profit picture, the fact of the substantially lowered base interest rates per end of 2001 encouraged bankers and Fannie Mae and Freddy Mac to work towards a larger volume of home mortgages in 2002 and later years.

[3] http://www.federalreserve.gov/releases/z1/current/z1r-5.pdf

1.3 The equilibrium position

The need for mortgage funds –the demand level of funds- should be based solely on the required number of new homes to be built and on the growth in income levels. Such demand is based on physical needs: the need for shelter and on financial needs; the need to be able to service outstanding debt out of incomes, irrespective of changes in interest rates and irrespective of the levels of funds available in the financial markets.

In the above quoted paper it was shown that 1997 was the year that the increase in mortgage amounts was sufficient to fund all new homes at a price below the prevailing median house prices. What happened in the subsequent period is illustrated in table 1.

Table 1: The need for home mortgage funds in the period 1997-2008

Year	Actual Increase in Mortgage Amounts x U.S. $billion	Actual Housing Starts per 1July (ann.) x million	Needed Housing Starts x million	Annual CPI Inflation %	Median House Prices (1July) Based on CPI x U.S.$	Increase in Mortgage Funds Needed x U.S. $billion
1997	180	1.437	1.8		145,900	
1998	301	1.698	1.8	1.6	148,234	267
1999	377	1.699	1.8	2.2	151,495	273
2000	382	1.463	1.8	3.4	156,645	282
2001	509	1.670	1.8	2.8	161,031	290
2002	706	1.655	1.8	1.6	163,607	294
2003	881	1.897	1.8	2.3	167,370	301
2004	950	2.002	1.8	2.7	171,889	309
2005	1,053	2.054	1.8	3.4	177,733	320
2006	998	1.737	1.8	3.2	183,420	330
2007	701	1.354	1.8	2.9	188,739	340
2008	- 32	.923	1.8	3.8	195,911	353

Table 1 compares actual lending levels with actual housing starts on an annualized basis. It also establishes the increase in mortgage funds needed on basis of the CPI inflation levels -as an approximate for the growth in average income levels- and of the median house prices. 1997 was regarded as a base year as the increase in mortgage amounts in 1997 were more than sufficient to fund all new housing starts in the same year, based on the median house prices of that year.

In table 1 the supply of funds to the home mortgage market is compared to the need for funds.

Over the period 1997-2007 table 1 shows the growing gap between the actual supply levels of home mortgages and the need for funds (demand levels) based on the average income growth levels and the physical need for shelter. The latter may, in practice, vary slightly from year to year, but it has remained close to the 1.8 million of new homes needed based on population growth and on preferred types of homes.

What has been surprising was that financial regulators put so much emphasis on the supply side of home mortgage funds. This was at the detriment of focusing on the need for funds approach. The regulators chose to leave banks and other financial services companies alone in their supply of funds, all the way till breaking point. In doing so the weaker groups in society: individual households at low and median incomes, who needed a mortgage to get on the housing ladder, suffered the consequences.

If the U.S. had followed the "need for funds" approach, it would most likely have avoided the U.S. experience as it did turn out.

In his book: "The Great Deformation"[4] David Stockman states that some senior U.S government and Fed officials were in denial that the excessive house price increases were undermining the solidity of the U.S. banking system, even close to the financial crisis of 2007-2008. The prevailing view was that such housing bubble was good for the economy, rather than detrimental.

Over the period 2002-2007, the free markets in money –the supply side- created their own self-destruction in that risks to the overall economy were not priced into the circumstances under which banks were operating. Such circumstances were a relatively low interest rate environment and rising house prices exceeding income growth levels. The "invisible hand" of Adam Smith did not, does not and cannot operate in the free markets for money. Bankers, including all those working in financial services, were, and too a large extent still are, guided by making more money for their organizations and implicitly for themselves based on profit level assessments that do not reflect the longer-term economic dangers of their actions.

2. The effects of letting banks get away with excessive mortgage lending

2.1 The economic and social effects

Over the period 2006-2013 22.1 million households faced foreclosure proceedings over their home loans. This equals more than one out of every six U.S. households. 5.8 million homes were repossessed, affecting one out of every 8-mortgage holder. Over the period January 2008- October 2009 7.8 million Americans lost their jobs. In 2013 the real median household income was 8% lower than the 2007 pre-recession level of $56,435. Notwithstanding the lowering of interest rates to historically its lowest level, individual households reduced their outstanding mortgage portfolio by $1.24 trillion or 11.7% over

[4] The Great Deformation by David A. Stockman, ISBN 978-1-58648-912-0 (HC) March 2013, Public Affairs, a member of the Perseus Books Group.

the period 2008-first quarter 2015. The U.S. government (Federal, State and local) saw its tax revenues drop by $1.5 trillion or 29% over the period 2007-2009. In the paper: "Debts should come with a serious economic health warning" it was calculated that between 2008 and 2014 the "economic costs" of the 2008 financial crisis was an increase in government debt per capita of $24,267 or in total an additional government debt of $7.7 trillion.

One should put these figures in perspective. The fact that the "needs for funds" approach was not applied led over the period 2008-2014 (fiscal years) to an extra debt for all U.S. citizens of $7.7 trillion. The total level of outstanding mortgages was $10.5 trillion in 2007.

3. The needs for funds approach.

For the future, the economic debate should explore policy options for implementing the need for funds approach rather than having banks run the supply side.

Each individual household taking out a mortgage adds to the volume of mortgages outstanding. While the demand level for mortgage funds is based on an individual choice, the annual total volume is based on a collective choice. All individuals have to guess what their income situation is going be for many years to come. Home mortgages are long-term commitments.

The supply side of funds works with different parameters: the volume of funds available for lending, prevailing interest rates and actual house price levels as well as the desire to maximize profits. The latter is a typical short-term consideration as profits are reported on a quarterly, semi-annual and annual basis. The supply side is also based on competition levels between financial institutions. Competition may lower the available interest rates somewhat, but it does not slow down lending when required.

The two variables in the need for funds approach are the fixed need for shelter -based on population growth levels and the preferences in dwelling patterns- and the need to keep income growth levels in line with outstanding mortgage debt levels and house price developments.

As table 1 illustrates the needs for funds was far exceeded by the supply of funds over the period 1998-2007. No equilibrium could ever be found as the supply side did not consider the long term consequences of its parameters and many of the regulators were of the opinion that more debt led to higher economic growth rates, rather than considering sustainable levels of outstanding debt in line with income growth patterns.

3.1 Spotting the danger point

Banks call their mortgage loan portfolios sound when their customer base repays such loans according to the loan schedules agreed to. However macro-economically speaking one can define a mortgage loan portfolio as unstable and thereby a threat to future economic growth rates when households' income growth levels are exceeded by the changes in the price levels of homes.

In the U.S. such turning point was reached in 2002. The "supply side" provided $706 billion in additional funds to the home mortgage market. The "need for funds" approach would have used only $294 billion in order to achieve its objective of starting 1.8 million new homes in line with the growth in income levels as represented by the CPI index. The "overfunding" level amounted to $412 billion. 2002 was the first year that more than 50% of the supply of funds was in excess of the need for funds. Such type of funding leads to house price inflation far in excess of the growth in household incomes. It reflects a financing pattern that is self-destructive. If continued –and it did continue to 2007- the housing boom (in prices only) will lead to a housing bust with all negative implications.

The year 2002 was well before the sub-prime mortgage sales efforts started. The latter started in all seriousness from 2004 onwards.

The difference between the narrow definition of "sound" levels of debt as defined by the banking sector and its macro-economic definition lies in the threat of future defaults and their subsequent consequences. Banks have a short-term profit motive and any household able to repay according to the agreed repayment schedule is regarded as sound as no loan loss provisions need to be made. Profits are maximized for the short term. Macro-economically the fact that income growth and house price growth levels are on divergent tracks should lead to the conclusion that such a pattern is unsustainable and therefore action is needed. Short term banking profits and long-term economic stability deviate. Financial markets provide the wrong profit signals for future economic growth levels.

3.2 Acting upon the danger point

To provide macro-economic guidance is not the task of an individual bank or other financial institution or of individual households. Such task clearly belongs to the regulators: the Fed, the state bank regulators and the security ones.

What the Fed had done in 2001 was to lower its base rate from 6% at the beginning to 1.75% by the end of the year. 2002 was the year of the danger point. Could it be that a uniform lowering of the base interest rate (or raising ones as was done over the years 2005-2007 from a level of 2.25% to 5.25%) would not be suitable for all the three main borrowing groups at the same time? The three groups are the U.S. government, the company sector and the individual households.

For instance the lowering of interest rates to 1.75% in 2001 had the effect of encouraging more home mortgage borrowing, while the needs for funds approach would have advocated a slower increase in such borrowing. On the other hand the company sector could well have benefitted from the lower rates, as economic growth rates had dropped in 2001-2002.

Perhaps a solution is to take actions related to the position of each borrowing group separately.

Tighten lending criteria

In 2002, one option could have been to temporarily tighten the lending criteria for banks to individuals wishing to take up a mortgage. Lower the supply side. The emphasis is on temporarily.

A mortgage interest stabilization scheme

What could also have been done and can still be done is the setting up of a home mortgage interest stabilization scheme. The average income growth levels of individual households do not move from 6% to 1.75% in a year, or move up from 2.25% to 5.25% in a two-year period. What could have been done is to set up a scheme that partially or fully eliminates the variations in interest rates for individual households. Stable charges to a household's income must be a source of reducing overall economic uncertainty levels. One should keep in mind that lower and middle class households are the most likely to have to borrow for buying a home. Their vulnerability to swings in mortgage payments is higher than for the higher income groups. In the U.S. the Fed together with Freddy Mae and Fanny Mac as well as with the banks could work out a solution for this problem. Ultimately the costs of stabilization will be costs of running the country efficiently. In other words such costs could be charged to the U.S. government budget if the increase in interest charges will affect households proportionally more than their income growth. On the other hand a situation is also possible that households keep paying the same interest charges at a time when banks' costs of funds rates have dropped. In this case a positive transfer should be made to the government.

The scheme basically helps the lower income classes to avoid important swings in their costs of mortgages. The lower income groups have to pay mortgage costs out of their wages and salaries. For the savings classes, the more wealthy in society, their income out of savings is usually in addition to income out of work. Fluctuations in savings income are usually more easily absorbed.

4 Some conclusions

- Money cannot be priced at historic costs, like for ordinary goods and services; therefore profits made on home mortgages by financial institutions are no guidance to future losses.

- The freedoms left to U.S. banks and other financial institutions to decide on their collective level of outstanding mortgages –the mortgage supply side- bears no resemblance to the risks run by individual households. The latter, especially those of the lower and medium income groups, may lose their homes or jobs or both in case the financial fraternity lends too fast.

- The "needs for funds" approach is based on two types of needs. The first is the need for shelter, which in the U.S. requires about 1.8 million new housing starts per annum. Such need is based on population growth and on preferred changes in the quality and size of homes. The second need is to keep house prices more or less in line with the income growth patterns of the borrowing households, usually the lower and medium income groups. Long-term stability in incomes is related to long-term stability in mortgage debt servicing.

- The costs of not following the "needs for funds" approach have had very serious economic and social implications. The great pressure to repay was illustrated by the 22.1 million households facing foreclosure proceedings; the 5.8 million home repossessions; the 7.8 million losing their jobs; the lowering of real median income levels; the $7.7 trillion additional U.S. government debt incurred, which is $24,267 per each American.

- The real conclusion out of the above is that the "need for funds" approach –the demand for funds based on required home building levels and on long-term ability to repay outstanding mortgages- is the only solution to maintain long-term economic growth levels. It favors the customers rather than the suppliers; it favors the low and medium income groups over the financial institutions

Drs Kees De Koning
Chorleywood U.K.
14th August 2015

References:

- Debts should come with a serious economic health warning! by Drs Kees De Koning; http://mpra.ub.uni-muenchen.de/65647/

- The International Monetary Fund: IMF Survey Magazine: Policy; April 8 2015 Global Financial Stability Report: Plain vanilla investment funds can pose risks;

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

- The Great Deformation by David A. Stockman, ISBN 978-1-58648-912-0 (HC) March 2013, Public Affairs, a member of the Perseus Books Group