Collective Household Economics: a Wake Up Call for Central Banks?

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Introduction

In section 1 of this paper, the main policy objectives of four of the world's most important central banks: the Federal Reserve of the U.S., the European Central Bank, the Bank of England and the Bank of Japan have been summarized.

Warranting a closer look is not so much what these policy objectives are and the ground that they cover but, notwithstanding how important they may be, what is left out.

After the financial crisis of 2007-2008, central banks have moved decisively towards strengthening the banking sector with the aim of improving the shock absorption capacity readying banks for any future heavy loan losses. 'Too big to fail' risks have been addressed. Other sectors of the financial services arena like insurance companies, pension funds and asset management companies, have also become the subject of intense regulatory scrutiny. More needs to be done, but major steps have been taken.

Central banks have also provided US$7 trillion of monetary stimulus and kept their lending rates at near zero. The ECB and the Bank of Japan are still in the process of buying government and other types of debt paper, all with the aim of stimulating economic growth. As of August 2015, inflation levels stood at 0.2% in Japan and 0.2% in the Euro Area, -0.1% in the U.K. in September and -0.2% in the U.S. for August. These levels are far below the target level of inflation, which has been set at or slightly above 2% at on annual basis.

All this has not prevented the IMF from predicting a slide towards the next global recession. A US$3 trillion company debt burden, especially in emerging markets, may come to haunt the broader financial markets.

Have central banks run out of options to stimulate growth? Are their tools still fit for purpose? Should one continue with yet more quantitative easing and/or negative interest rates? Or is perhaps the use of a 'one-size fits all' base rate for stimulating households, companies and a government no longer the right approach to managing an economy? Should the borrowing behavior of individual households be treated differently from those of companies? After all individual households do not operate on a for-profit basis.

In a paper by this author: "Collective Household Economics and the need for funds approach; the 2007-2008 financial crisis and its effects"[1] it was argued that the demand for long term funds borrowed by individual households (mainly mortgages) was not based on the same parameters as the supply of funds by the banking sector. The demand (or need) for funds was based on population growth, changes in average household size and changes in taste patterns; all non-financial matters. It was also based on affordability levels to service mortgage

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[1] https://mpra.ub.uni-muenchen.de/66851/1/MPRA_paper_66851.pdf

debt out of incomes. The paper concludes that households need a 'dynamic stability' in their long-term debt obligations. This could be achieved with the help of different central bank tools strictly for the benefit of individual households. Such tools could include a volume mortgage lending control mechanism: a traffic light system directed to the lenders side. Another tool could be a dual price setting mechanism for households' long-term debt. Households would pay for the debt on the basis of CPI level plus a margin, while lenders would receive costs of funds plus their margin. Of course, as the paper showed, differences between these rates will occur, the fix for which could be to use funds backed by the Treasury in some years to bridge the gap. In other years, Treasury will benefit from such differences. Finally, enhanced quality control measures will mean that mortgages are long-term borrowings with full repayments.

Creating such an environment will allow central banks to move their base rates more freely and in line with the level of corporate activities. The notion that households, companies and a government all need the same base rate level has proven to be unworkable. The more stable the financial position of individual households, the better the growth prospects for the whole economy.

2 Objectives of central banks

The objectives of the four main central banks in the world: the Federal Reserve in the U.S., the European Central Bank for the Eurozone countries, the Bank of England for the United Kingdom and the Bank of Japan for Japan, have much in common but do differ with small variations.

What are the Federal Reserve's objectives[2] in conducting monetary policy?

Congress established the statutory objectives for monetary policy--maximum employment, stable prices, and moderate long-term interest rates--in the Federal Reserve Act. The Federal Open Market Committee (FOMC) is firmly committed to fulfilling this statutory mandate. In pursuing these objectives, the FOMC seeks to explain its monetary policy decisions to the public as clearly as possible. Clarity in policy communications facilitates well-informed decision making by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society. Following its meeting in January 2012, the FOMC issued a statement regarding its longer-run goals and monetary policy strategy. The FOMC noted in its statement that the Committee judges that inflation at the rate of 2 percent (as measured by the annual change in the price index for personal consumption expenditures, or PCE) is most consistent over the longer run with the Federal Reserve's statutory mandate. Communicating this inflation goal clearly helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the FOMC's ability to promote maximum employment. The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the job market. These factors may change over time and may not be directly measurable. As a result, the FOMC does not specify a fixed goal for maximum employment; rather, the FOMC's policy decisions must be informed by its members' assessments of the maximum level of employment, though such assessments are necessarily uncertain and subject to revision. In the FOMC’s September 2015 Summary of Economic Projections, Committee participants’ estimates of the longer-run normal rate of unemployment ranged from 4.7 to 5.8 percent and had a median value of 4.9 percent. In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under

2 http://www.federalreserve.gov/faqs/money_12848.htm

circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

For the ECB [3] to maintain price stability is the primary objective of the Eurosystem and of the single monetary policy for which it is responsible. This is laid down in the Treaty on the Functioning of the European Union, Article 127 (1).
"Without prejudice to the objective of price stability", the Eurosystem shall also "support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union". These include inter alia "full employment" and "balanced economic growth".

The Bank of England[4] also has price stability as a main priority, but apart from that it also aims at financial stability. This is defined as public trust and confidence in financial institutions, markets, infrastructure, and the system as a whole that is critical to a healthy, well-functioning economy.

The Bank of England plays a vital role in maintaining financial stability in the United Kingdom in a number of ways:

- Reinforcing trust and confidence in money itself;
- Acting as lender and market maker of last resort at times of financial stress;
- Promoting the safety and soundness of individual financial institutions (via the Prudential Regulation Authority);
- Removing or reducing risks to the financial system as a whole, via the Financial Policy Committee;
- Supervising financial market infrastructure;
- Safely resolving failing financial institutions;
- Collaborating with other UK financial authorities to support UK financial sector business continuity and operational resilience.

The Bank of Japan[5] has multiple objectives: price stability and the stability of the financial system. Price stability objective is set in qualitative terms in the 1998 law and the policy board has quantified this as a range of 0% to 2% inflation in the medium term. It has a two perspectives strategy, the first focusing on short-term inflation developments and the second on economic and inflation developments as well as financial stability in a longer-term perspective.

[3] http://www.ecb.europa.eu/mopo/intro/objective/html/index.en.html
[4] http://www.bankofengland.co.uk/monetarypolicy/Pages/default.aspx
[5] http://www.boj.or.jp/en/about/activities/act/data/ar0506.pdf

2 Central bank tools

In a fascinating article by Reuters[6]: “From heroes to bystanders? Central banks’ growth challenge” the authors point out that “despite near-zero rates and $7 trillion of monetary stimulus unleashed by central banks in major industrial economies, investment and growth is stuck below pre-crisis levels and tepid demand is hurting developing economies by depressing prices of their commodity exports.”

Perhaps rather than admitting defeat in accepting that the tools used have not had the impact expected, it is prudent to examine why these tools have not worked well so far.

In the above-mentioned paper, “Collective Household Economics and the needs for funds approach”, not only were the root causes of the 2007-2008 U.S. financial crisis analyzed, but also the effects of the crisis on household finances after 2008 to to-day’s situation.

Over the period between 2006-2013, 21.3 million households in the U.S. were confronted with foreclosure proceedings. This compares to the 47.5 million households who had a mortgage, affecting nearly 45% of all mortgagors. Over the same period 5.8 million homes were repossessed. This represents 1 out of every 8 households with a mortgage.

As a consequence of the pressures by the banking sector to repay outstanding mortgage loans, outstanding mortgage debt levels were reduced by US$1.2 trillion over the period 2007-2014 or by about 12% from their peak level.

During the period 2009-2011, new home construction levels dropped to about one third (600,000 new homes) of the 1.8 million new homes required annually to keep up with population growth and changes in family size. In 2015, the new home starts are still running at about a third below the 1.8 million new homes required. Home ownership levels have dropped from 69.2% of all households in June 2004 to 63.7% in the first quarter of 2015. First time buyers now only make up 29% of homebuyers compared to the long-term average of 40%.

Added to this, the U.S. government debt level nearly doubled over the period 2007-2014 from US$9 trillion to US$17.8 trillion by the end of 2014.

Why are these facts relevant to an analysis of the policy tools used by central banks? In answering the question, it is instructive to consider what are some of the guiding principles behind individual households borrowing in order to secure a property.

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[6] http://www.reuters.com/article/2015/10/01/us-global-centralbanks-idUSKCN0RV3G020151001

The first principle is that households do not buy homes because interest rates are low or high, but because they need a place to live. If given a choice between renting or home ownership, nearly all households in the U.S., the U.K., Japan and many countries in the EU would prefer to own their home. For many low and median income families, it means that a mortgage is a necessary evil to be able to buy a home.

The second principle is that the "need for a place to live" has been overshadowed by the structure of the mortgage funding mechanisms currently in place, including the setting of base rates. The overfunding of the U.S. housing market over the period 1998-2005 was not stopped, the quality of the mortgage-backed securities market was not challenged and the legal system did not help either as borrowers were (and still are) typically regarded as the ones who made the misjudgments.

The third conclusion is that since 2007, individual households have been unwilling to increase their collective mortgage levels when following a period of significant pressure being put on them to repay outstanding mortgage loans. The lowest interest rates on record did not spur them on; neither did quantitative easing as the latter was focused on households and on institutions that owned bonds on behalf of households. The richer classes and indirectly overseas companies benefitted from such easing, but the direct economic benefits to households on median and lower income levels, if any, were very limited.

The overriding conclusion is that in most circumstances, an increased volume of money in circulation does not create economic growth and neither does lowering the price of money (interest rate), nor through increasing the volume of lending.

A second article by Reuters[7]: "The central bank cavalry can no longer save the world" The article quotes the Group of Thirty, under the chairmanship of Jean-Claude Trichet, a former Governor of the Banque de France, who warned that zero rates and money printing were not sufficient to revive economic growth and risked becoming permanent features.

3 Some policy objectives

3.1.The inflation objective

The objective to keep the consumer price inflation level at around 2% per annum has been enshrined in all four mentioned central banks' policies. However, the question should be raised: "Who is protected by this target"? Is it the household sector and if not, do companies or a government need this protection? It is unlikely that the former and the latter will benefit equally from the objective. It is

[7] https://uk.finance.yahoo.com/news/central-bank-cavalry-no-longer-025916460.html

not enough just to state that acting upon an inflation objective protects the value of a currency; is it the currency as in household incomes or in sales or home prices?

The question raised is essential in the context of this paper. If the economic world was comprised of cash and cash transactions only, then currency values would be of vital importance. However, the world did get a lot more complicated when loans were introduced, especially of the long-term borrowing type. By their nature, long-term borrowings stretch out over many years in which inflation levels may vary substantially. Long-term borrowers are exposed to two types of risks: interest rate risk and income risk.

The focus in this paper is on the collective of individual households. Take as an example a U.S. mortgage borrower, who took out a 30-year loan from Freddy Mac in 1997 with a rate of 7.6% fixed over 30 years. In 2014, the same loan would still have had a 7.6% interest rate. The outstanding mortgage debt as expressed in U.S. dollar values of 1997 would have increased substantially as in the years 2009-2014 (with the exception of 2011 when the CPI level increased above the 2.3% CPI change of 1997). What this all means is that inflation has not just got a short-term effect, but for mortgage borrowers also a long term impact. Acting to counteract short-term CPI variations seems to help little in overcoming the long-term impact of the changes in the values of borrowed currency.

Another effect of the financial crisis was on the nominal income developments. From 2008 to 2012, U.S. nominal median household incomes initially dropped and subsequently slightly recovered to the 2008 level. To pay debts back in a situation where the CPI index still moves up, but incomes growth is non-existent, will certainly hamper economic growth. Again, the value of a currency is not just a cost price inflation matter, but also a debt matter in relation to income growth levels.

The conclusion out of the above is that a borrowing system has to be created, which is much more aligned with changes in nominal income levels rather than base rate changes. Price stability may be one objective for central banks, but it should be twinned with maintenance of a “dynamic stability” – stability over a longer period of time- for servicing long-term loans out of nominal incomes.

3.2 The full employment objective

One lesson learned from the financial crisis 2007-2008 was that the real crisis had already started in 2002. Mortgage lending levels nearly quadrupled between 1997 and 2002; during the same period, the annual new housing starts only increased by 15.7%. Substantial amounts of borrowed funds were diverted thereby increasing existing house prices. A dollar saved in 1997 and used in 2002 would only buy a smaller share of a standard home, than if the dollar had been used in 1997. This dollar depreciation in value in house price terms continued unabatedly to 2007. The result was not only extreme pressure on households to repay the outstanding loans, as indicated above, but also a general recession with accompanying acutely high levels of unemployment. The overfunding period of home mortgages between 1997 and 2007 was directly responsible for the subsequent increase in unemployment levels in 2008 and especially 2009. Household incomes came under strong pressure both from the financial side obligations and from the income side. No wonder that the 2007-2008 financial crisis was the worst economic crisis since the Great Depression.

Both in the U.S. and in the U.K., unemployment rates have dropped to pre-recession levels. The Eurozone countries are still a long way behind. In Japan the unemployment rate has returned to 1997 levels.

The lesson learned is not a new one: that prevention of the excess lending levels would have been much better than the cure to their effects. Employment and income levels would have been much better off. Government debt levels would have been substantially lower.

3.3 The financial stability objective

Central banks first and foremost concentrate their efforts on maintaining the financial stability of the financial sector. This is understandable, but also somewhat shortsighted. Of course, the banking and other financial sector elements need to be kept on a sound footing but bailing out of banks by governments should be avoided. While wider economic goals, like full employment and CPI inflation management are increasingly taken into account by central bank policy, it could be argued that the financial stability position of individual households is somewhat of a neglected area. Would central bank action in this space not help to achieve other objectives of prime economic importance, such as improving the stability of an economy and thereby of the banking sector as well? There is certainly room in the central bank policy shed for some tools to better accommodate the collective of individual households.

4 Change some tools

4.1 The interest rate tool

On 16th December 2008, the Fed funds rate was lowered to the 0-0.25% range. This rate has been kept for nearly seven years without any change. The weakness of the interest rate tool is that all users of funds are confronted with the same rate, while the need for funds differs widely from individual households to companies and to governments, not to mention countries other than the U.S. where U.S. dollar borrowings and savings have become commonplace.

In the Collective Households Economics paper quoted before, it was argued that the supply of home mortgage funds does not necessarily reflect the need for funds as the latter are based on population growth levels, changes in average household size and changes in style of housing preferences. The divergence between the supply of mortgage funds and the need for funds over the period 1998-2007 led to the subsequent mortgage crisis and its dire consequences during later years.

Why do central banks fail to acknowledge that despite all users of money being subjected to the same base price, households, companies and governments have very different income generating motives? Households generally have to work for an income and are not motivated by profit in the same way that corporations are.

The Fed funds rate is a supply of money tool, rather than a tool for adjusting different levels of demand generated by different groups in a society. The Fed funds rate works its way into the supply side of money through altering the price for lending, including mortgage costs.

The proposal put forward by this author in the above-mentioned paper is to split the money pricing mechanism for long-term borrowings by individual households, thereby creating a dual interest rate system (with one pricing mechanism for the lending banks and one for the individual household borrowers). On the one hand, such a system accommodates the fact that incomes and income growth are the sole determinants for the ability of individual households to repay outstanding long-term loans and on the other hand it also addresses the point that banks are unable to vary their lending rates in line with income growth levels of their clients. The dual system would involve individual households paying for their mortgage loans on a CPI plus margin basis. Economic history shows a positive correlation between nominal income growth and CPI changes. On the other hand, banks can base their price setting on costs of funds, including the central bank's base rates plus their margin.

The interest tool can be made even more flexible. In 2009, nominal income levels dropped. At such times, it may be opportune to use a variant of quantitative easing: the margin over the CPI index could be temporarily reduced, so as to enable households to continue to consume other goods and services, therefore maintaining employment and economic growth levels.

Naturally, differences will occur over time between the borrowing costs paid by individual households and the cost of money received by the banks for such loans. In case of temporary deficits, central banks can advance such funds to the banking sector; in case of surpluses when individual households pay more that what banks should receive the surplus returns to the central bank. These balancing settlements can come with a government guarantee to the central bank as a tool of monetary policy.

Introducing a dual pricing system for long-term borrowings by the individual household sector will provide greater freedom for central banks to set their base rates in a way designed to improve or slow down the business sector.

For the Eurozone countries, it will mean that the national central banks will have the responsibility for long-term mortgage borrowings by their own citizens as each country has different levels of population growth, different levels of mortgage lending etc. Settling the differences between what households pay and what banks receive will also be a national issue. The ECB would remain responsible for interest rate setting for the business sector throughout the Eurozone countries.

4.2 The volume-lending tool

In the above-mentioned paper, a "traffic light system" was proposed to help better manage the volume growth in home mortgage lending. In the Eurozone this would again be managed and administered by the national central banks. Again this volume lending tool would only be applicable to home mortgage loans.

4.3 Product quality controls

Mortgage lending should really only be undertaken with the objective of building up own equity for a household. Therefore interest only mortgages do not qualify, as borrowers only stand to make a gain if house prices move up faster than the interest costs of the mortgage. Such a speculative product should be discouraged. Also, low start up (but high incremental) interest rate mortgages should be discouraged. Again, what is important for society and therefore for a central bank is to maintain strict quality standards on home mortgage lending.

5 Some conclusions

- The effectiveness of central banks in controlling inflation and in financial stability management has been weakened by base rates that are at their lowest levels ever and simply adding more money into circulation has not had the desired effects. The main reason for the continuing malaise is that the income stability of individual household, especially of the lower and median income levels has not received the attention it deserves.

- Central banks have options, but in order to exercise these, a fundamental rethink has to take place for which group of households such options need to work. Consumption levels by individual households in the three countries focused on this paper and the Eurozone area are responsible for between 59% and 68% of GDP. Therefore, measures such as the 'traffic light' lending volume control mechanism, the dual price mechanism for setting interest rates and the quality control proposals are urgently needed to ensure that long-term financial obligations do not become an obstacle to economic growth.

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References

- Kees De Koning: Collective Household Economics and the need for funds approach; The 2007-2008 financial crisis and its effects, 22nd September 2015, MPRA Paper 66851, University Library Munich.

- Federal Reserve, Washington D.C. What are the Federal Reserve's objectives in conducting monetary policy? September 17th 2015.

- European Central Bank, Frankfurt, Objective of monetary policy, not dated.

- Bank of England, London, Monetary Policy Framework and Financial Stability, not dated.

- Bank of Japan, Tokyo, The Bank of Japan's Strategic Priorities for Fiscal 2014-2018, published March 25, 2014.

- From heroes to bystanders? Central banks' growth challenge by Reuters, Howard Schneider and Balazs Koranyi, Washington and Frankfurt, 1 October 2015.

- Central bank cavalry can no longer save the world by Reuters, David Chance in Lima, 10 October 2015