Do savings promote or hamper economic growth? The Euro area example

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Introduction

Individual households save out of income by postponing consumption. Individual households aim to get a positive reward for such savings after inflation. The decision to save out of their disposable income is one made by the collective of individual households.

The real question about savings is not so much what individual households do -though important-, but what the users of the savings do with the money. Do such savings reach the companies or individuals which need the savings to expand production or consumption, or are savings allocated to applications which impede this purpose? The difference is the difference between the economic use of savings and the financial one.

The allocation of savings over their various uses is rarely made by individual households themselves. Governments decide over their own budgets and deficit funding. Government debt outstanding for longer than a year does no longer contribute to economic growth. Many companies -especially the bigger ones- attract equity resources from capital markets. This is a category of savings which directly supports economic growth. However when the shares are listed any increase in share price benefits the sellers of the shares, but the companies do not receive a single penny more. The increase in price is funded from savers, but is not returned to either consumers or producers; it is usually kept in financial claims on banks or other financial institutions like pension funds. The third category is funding house price increases. When individual households' incomes rise, so may house prices. However when house prices increase faster than the average income growth, additional savings are being pumped into house price rises which are not based on a transfer to home builders. Such house price increases are also not based on the original building costs corrected for inflation levels. The sellers may be the beneficiaries, but the buyers have to allocate additional savings which do nothing for creating economic growth. All these savings applications are examples of the financial use of savings rather than an economic one.

Another question needs to be raised: Can individual households collectively save too much and thereby consume too little in certain periods? The answer is a resounding yes as the U.S. experience has shown since 2008. The threat of losing one's home in a declining house price period or losing one's job made individual households reduce their national home mortgage portfolio by about 10% or $1.2 trillion over the period 2008-Q2 2013. Secondly the structure of current day savings patterns makes access to such savings much less flexible. In many cases the management of individual savings is outsourced to external institutions.

When considering savings, one has also to consider the events which lead to the destruction of existing savings. Lower company profit levels and company failures, bank failures, drops in share, bond and house prices all lead to losses on savings which undermine the hopes for a positive return on savings.

The collective economic risks to the savings levels of individual households are unevenly spread over the households. Young people and lower wage earners represent the households which suffer most from economic downturns. These groups use borrowed funds to achieve the dreams of acquiring a home and other economic essentials. These groups are also the most vulnerable to a disruption in the income earning capacity as debts do not disappear in a recession period. In the upturn they benefit the least as their volume of savings is the lowest among all households. It is for this reason that the focus of this paper is on the Euro area, where youth unemployment rates are at historical highs, where share prices are still far below 2008 levels and where house prices have hit a seven year low. The savings allocation needs re-balancing towards an economic use.

1 The Coin economic theory

1.1 Savings not used for output and employment growth: the financial use of savings

The Coin economic theory, which stands for the economic activities of the collective of individual households, starts from the premise that only individuals are the ultimate earners, spenders and savers of incomes. The institutions such as a government, a central bank, banks, pension funds and industrial and service sector companies are all made up of individuals in different capacities.

In these different capacities, the collective of individual households distinguishes itself from the rest of the living creatures by using money as the tool to enable each institution to function and to help each individual household to earn an income. For many Euro area countries the youth unemployment figures show that this process operates in a less than satisfactory manner. Since the 2008 financial crisis, the income growth in average earnings for the employed workers has fallen behind the rate of inflation in many countries: another unsatisfactory result. Thirdly with government deficits increasing, quite a few governments have tried to rectify their deficit by increasing the average tax level, rather than by the more difficult route of reducing government expenditure. Fourthly banks, which had lend money to individual households at a speed far exceeding the income growth levels, especially for the purpose of home buying, had to face the consequences of their collective actions. They had to retrench or even needed to be bailed out by the collective of individual households.

What is most striking is the apparent lack of understanding of the links between savings as a source of creating more jobs and better incomes and savings which are used to inflate share, bond and house prices. Also the process of the destruction of savings values is not properly addressed in economic theories.

Take the case of government debt funding. In the year that a government spends more than its revenues level, the borrowings for such spending represent a conversion of savings into consumption. However just like individual household debt, in the following years such government debt from previous years needs to be funded, it requires an allocation of savings which does no longer contribute to consumption or investment for that matter. The savings are stuck in the financial sector only. It is the equivalent of keeping a “coin” in one’s pocket; it does not add value to consumption or production any longer. Hence the term: “Coin economic theory”, which stands for both the Collective of Individual households as well as the process of keeping savings: “Coins”, in applications which do not contribute to output and employment growth: the financial use of savings.

In case a government does not expand or reduce its debts, the debt servicing means that the collective of individual households pays the interest due out of incomes and that the holders of the government debt, such as banks and pension funds receive such interest. Generally speaking such transfer will impede the spending level in society as neither the banks nor the pension funds will use such income to fully pay back these debt servicing amounts to the collective of individual households; another partial transfer of savings from the real sector use to the financial sector savings level.

Take the case of shares. When companies issue new shares, the amounts received will generally be used to expand production and employment. However when shares are started to be traded and the share price goes up, such event implies that additional savings were used to acquire the shares without the company benefitting from the savings transfer. All in the hope that future dividends will

add to the income flows in subsequent years. Irrational exuberance is a well known phenomenon in the equity markets. What it means in terms of savings though, is that the additional amounts pumped into the price increases of shares do not translate into more money available to the company sector. This is the second main element of the allocation of savings for purposes which do not create output or jobs: another element of the financial use of savings.

The third example is house prices. When a house price increases faster than the CPI inflation level, especially through an actual change of ownership, the economic benefit of living in such a house does not change, but the economic cost does. More savings, often indirectly through the mortgage process, are allocated to a fixed asset which offers no more comfort than it did before the transaction. Again most of such savings will be kept in the financial sector by the seller and will not add to output or employment growth in the short run. This is the third main element of the financial use of savings.

The conclusion out of the above is that three categories of savings: funding government debt outstanding for more than a year, funding share price rises after a company has issued its shares and funding house price rises above CPI inflation levels, all lead to savings being kept in the financial sector rather than being used for production and consumption purposes. In the next section such use of savings will be compared to the supply and demand theories on which many economists base their philosophies.

To go from the general remarks to the specifics, Eurostat, the European Statistical Agency, has compiled the following data for the Euro area -the 17 countries within the European Union, which share the Euro as their currency-:

The combined government debt of the Euro area compared to GDP increased from 87.3% in 2011 till 90.6% in 2012. Total outstanding Euro area government debt was Euro 8.60 trillion as per the end of 2012.

The unemployment rate for the Euro area countries was 12.2% in September 2013 at 26.872 million unemployed men and women. This was an increase of 996.000 from the year before. Youth unemployment was 3.548 million as per September 2013; an increase of 8000 from a year earlier. Greece had 57.3% unemployed youth and Spain 56.5%. Italy is not far behind at 41% youth unemployment rate.

In the Euro area average house prices were down by 2.2% during the period second quarter of 2013 as compared to the second quarter of 2012. Over the longer term the deflated house price index dropped from 105 in 2008 (base is 100 for 2010) till 92 as per second quarter 2013. An interesting article in the Financial Times of 21 July 2013[1] spells out the differences between Euro area countries on house prices.

1.2 Savings equity positions do not follow supply and demand economics

In the free market philosophy a price is set when supply meets demand. Free market supporters claim that economies should be ruled on the basis that there is no better system to adjust employment, incomes and economic growth levels than to follow the “markets”.

[1] http://www.ft.com/cms/s/0/abe207dc-f081-11e2-929c-00144feabdc0.html

The Coin economic theory begs to differ. The difference is not in the markets for consumer goods. Companies are usually the most efficient and effective instruments to ensure that supply and demand for consumer goods are met. The profit motive drives most of them in the right direction.

The disagreement with the free markets philosophy arises when it comes to the funding of equity positions which do not benefit the consumer goods and services companies either through additional supply (investments) or demand (consumer demand).

Firstly take government debt.

A government's debt level could not exist if it was not for the equity level of savings which individual households have made available to the Euro area (and other) governments. This is done directly by individual households as well as indirectly through life insurance companies, pension funds and banks, for instance. According to the latest statistics of Eurostat for government debt in the Euro area, Euro 8.23 trillion has been outstanding for over a year and Euro 370 billion has been added to the debt in 2012. 95.7% of the debt has been outstanding for over a year. In other words Euro 370 billion was the amount spent by Euro area governments in 2012; all of it on funding government expenditure in excess of government tax revenue levels and most of it on actual cash outlays on services rather than on servicing government debt. Euro 8.23 trillion of money from individual households was allocated to funding outstanding government debt from previous years. The latter equity allocation -savings by individual households- implies that these savings could and still cannot be allocated to either production or consumption.

The demand for government funds is not based on supply and demand. Parliaments in the Euro area make and made their political choices on how much to spend. They might defend such expenditure on basis of the state of the economy, but it remains a political choice and not an economic one. No one in any country can force a government to borrow more or less for that matter. The Maastricht Treaty tried and tries to instil some fiscal discipline among EU nations, but enforcements are often watered down. If they had been adhered to, a situation, like in Greece and Cyprus, could never have arisen.

Governments have the option to raise tax levels or to lower their expenditures. This is a choice which individual households do not have. The latter cannot raise their income level, but they can reduce their expenditure one. The choice that current Parliaments usually do not have is to write off their debt levels from previous years; a savings destruction method which transfers the results of the lack of proper government management to the collective of individual households: a highly unsatisfactory method.

Another element which needs consideration is the level of free spending. In the Euro area government debt levels stood per 1 July 2012 at 96.2% of total debt outstanding as per 1 July 2013. Only 3.8% was the discretionary spending level for the year till 30th June 2013. The higher the debt level, the lower the share is of the discretionary spending level.

Another factor is the debt level as compared to the annual output or income level. The Euro area government debt level has reached 92.2% of annual output or GDP level according to the latest data.

These two facts together: one is that 96.2% is the outstanding government debt in the Euro area countries has been outstanding for a period longer than one year and two is that the debt level has now reached 92.2% of GDP level or close to the national income level in a year.

Under these circumstances, in a supply and demand situation, the demand for government funds cannot be withdrawn in any period shorter than say 70-80 years, otherwise tax payments would outstrip private sector income levels to such an extent that an economy would totally collapse. If the demand for funds cannot be shortened than the supply of savings committed to funding past excess government expenditure can not be withdrawn either. The concept that there would be a price for an imprecise 70, 80 years or longer borrowing period is quite improbable. There is also no price which reflects the fact that the collective of individual households cannot withdraw their savings from funding government debt. Again there is no price -interest rate- which reflects the borrowing period of 70 or more years. Individual households will never want to put money aside for such life long periods. To overcome this hurdle, governments, the world over, have resorted to borrow on terms which suit the lenders: they introduced 1, 3 and 6 months, 1, 3, 5, 10 and sometimes 25 or 30 year government bonds. Governments around the world have created a maturity mismatch for their own debt, something they do not allow their own banking system to practice -borrow short but lend long term-.

This government maturity mismatch practice has had serious consequences for some of the Euro area countries, like Spain, Portugal, Italy, Ireland and Greece for instance. Spain's government debt in 2008 was less as a percentage of GDP than Germany's. In 2008 in Spain it was 36.1% of GDP and for Germany it was 64.9%. Spain's gearing ratio was substantially lower than Germany's when the crisis started. Had Spain borrowed according to the maturity pattern of its government debt, its problems would have been substantially reduced. The situation was that it had not done so and neither had any of the other Euro area countries.

If one can accept that the "price" or interest rate paid for Euro area government debt is mainly based on short term liquidity considerations rather than on long term solvency problems, than the possible adjustment mechanisms become easier to define. Why would the people of Spain have more difficulty in repaying their government debt than the people of Germany as both government debts to GDP ratios are practically equal according to the latest statistics? The current 2.4% interest rate differential between the 10 year yield on German and Spanish government bonds is no indication of the difference in servicing the government debt levels by the collective of individual households. Spanish taxpayers are just as capable to repay their country's government debt as the German ones. However they cannot do it in a substantially shorter period than it would be done by Germany.

Liquidity over solvency considerations is strongly encouraged by the trading practices of banks and other institutions which act on behalf of the individual households. Holding on to government debt till maturity is discouraged by two factors: The financial regulators have decided that, accounting wise, government bond portfolios need to be marked-to-market by the banks and other bond holders which fall under their supervision. The second incentive for banks to trade is that bond turnover usually leaves the customer poorer and the banks richer. Banks have extensive government bond trading operations. Furthermore the swapping of long term fixed interest rates into floating rates and vice versa is another money spinner for banks.

The accounting rules and the banks' own interests' push government bond markets into an area for which is was never designed: short term over long term considerations. How such dilemma can be counter acted will be explained in section 3.

Secondly take shares.

Companies list their shares on the stock markets, mainly to have access to the substantial savings resources which such markets can offer. Once the new issue has been done and the initial transfer of

savings has taken place, trading in shares commence. Trading offers a minute by minute price of the shares. According to free market economists such trading reflects the supply and demand for shares. The Coin economic theory does not dispute that there is a "price" for the shares, but the price reflects an allocation of savings. The higher the price as compared to the issue price, the higher the level of savings which has been used for the purchase of the shares, after the issue date. Such savings do not contribute to funds available to the companies; they only reflect a transfer of savings to financial values, rather than to productive ones. Such share transactions are not based on the demand for funds from the real sector companies. They are only based on perceived values. Therefore the supply of savings for supporting share price increases do not qualify for a proper supply and demand theory as companies play no direct role in the demand for funds. The real sector and the financial sector are diverging. Savings allocated to share price increases do not support the company sector in their operations. Such savings do not support real markets where goods and services are produced and consumed. They constitute a financial use of savings.

Thirdly take the housing markets

Savings used to acquire homes would easily fulfil the supply and demand equation, or would they? Again there is a price for which a home changes hands. If the home was newly built, it would represent the labour and material costs plus the homebuilders' margin; all elements of the real sector. However the percentage of newly built homes as compared to the stock of homes is often around 1 or 2% maximum, as currently new homes are likely to last well over 100 years. Therefore most transactions take place with existing homes. If an existing home is sold at the same price for which it was built, corrected for CPI inflation levels, than the savings allocated to acquire the home do not change in real terms. However if house price inflation exceeds the CPI inflation level than the additional savings used do not acquire more comfort but only fund the price difference between the original price in real terms and the inflated price. To consider the housing market as a supply and demand market is far fetched in that close to 99% of all homes in such a market have already been built and will not need to be knocked down. There are, of course, changing needs due to family size, population growth and taste, but the 1% in additional supply cannot possibly result in the variation in house prices as one can observe for Spain, The Netherlands and France in 2013. Various sources indicate that average house prices in Spain will drop by 7.8%, in the Netherlands by 5.9% and in France by 5% all in this year 2013.

Most individual households, especially young individuals and families, need a mortgage to get on to the property ladder. When house prices are dropping, the institutions which are supposed to help families -the banks- are reconsidering their policies to grant mortgages in order to avoid loan losses. When house prices are rising the opposite is the case. Boom and bust is the typical pattern of the housing markets in most countries. Local Spanish estimates are that 3.4 million homes stand empty[2] in Spain out of a total housing stock of 25.2 million homes. On top of this the current number of individual households stands at 17.392 million, which reflects a drop of 80.000 households compared to a year ago due to net migration. In the past the Spanish banking sector -especially the regional banks: the Caja's- have used individual households' savings to facilitate the construction of all these homes without any real need for these homes. It represented a misallocation of savings on a grand scale, for which the collective of individual households in Spain has been forced to pay the bills.

The conclusion out of the above is that an excessive increase in house price rises is usually accompanied by an excessive mortgage growth. Savings are allocated to a process which allows existing homes to be sold for a "price", which contains a substantial speculative element. As 99% of

[2] http://www.spanishpropertyinsight.com/2013/04/22/census-shines-light-on-spains-empty-housing-problem/

all homes have already been built, such speculative element does nothing else than reflect a financial use of savings rather than an economic one. The situation gets worse with excessive drops in house prices. The outstanding debt will still have to be serviced over a declining asset value. High unemployment rates and wages growth below inflation levels create further elements which help to distort the average home price. House prices are linked to individual households' incomes rather than to the supply and demand levels. Nearly all of the housing supply dates back to economic activities in previous years.

1.3 Losses to savings

Just like gains were classified in the above as financial gains and real sector gains, losses to savings can also be classified into two categories: the economic losses and the losses in financial values. To properly understand the importance of this distinction is to understand what happens to the savings in the way they have been allocated over various uses. In the previous sections the question was asked: do the savings allocated to a particular use help output and employment growth?

An economic loss occurs when such savings do not add to output and employment growth. Government debt outstanding for over a year, share price increases after the stock market listings and house price rises over and above CPI inflation levels all do not add to output and employment growth. In the case of government debt, of course the holders of such debt are compensated: they earn an income; however such income is paid for by the collective of individual households either in taxes or in an additional supply of savings to a government. If taxes were used to pay for past debt servicing, it is a zero sum game. If additional borrowings were used to pay for outstanding government debt, the increased borrowing level adds to the economic loss: fewer funds can be made available for output and employment growth.

For share price movements after the initial share issue and for house price increases the same reasoning applies. The gains of some households are funded by other households giving up part of their savings to fund such gains; this reflects an economic loss as these savings were not used to help output and employment growth.

The crux of the argument is that the financial gains for some individual households can at the same time reflect a loss to the economy; a loss to the collective of individual households. Savings are being allocated for uses which do not create employment and output growth.

Economists, politicians, bankers and regulators are not used to the fact that a gain can at the same time reflect a loss. A temporary misallocation of savings -an allocation of savings which does not contribute to employment and output growth- creates a lost opportunity to enhance employment growth and output. This situation is not just a theoretical lost opportunity; it means higher unemployment levels, less real sector company profits and less goods and services available to all individual households.

2 Appropriate economic policy responses

2.1 The re-balancing of the savings allocations

What the currently used economic policies do not do and as things stand to-day cannot do is to change the flow of savings towards economic savings: savings which support employment and output growth. It requires a temporary re-balancing of the savings flows.
Take fiscal policy.

Every government has to deal with a government debt which has been built up over a number of years. For the Euro area the GDP at market prices was Euro 9.265 trillion in 2008 and it increased to Euro 9.483 trillion over 2012: a nominal increase of 2.35% over this four year period. The government debt level increased from Euro 6.422 trillion in 2008 for the same group of countries, till Euro 8.596 trillion in 2012: an increase of 39.5%. The government revenues were increased from 44.8% of GDP in 2008 till 46.3% in 2012 or in absolute amounts from Euro 4.151 trillion in 2008 till Euro 4.391 trillion in 2012, an increase of 5.77%.

The result of an increase in net government borrowings of Euro 2.174 trillion over the years 2008-2012 resulted in a GDP growth of Euro 218 billion plus an increase in unemployed persons from 12,976,000 as per December 2008 till 19,447,000 as per September 2013. This was an increase of 49.9% in the number of unemployed over a very short period. The savings allocation of Euro 2.174 trillion led only to an output growth of Euro 218 billion, plus a loss of 6,471,000 jobs.

A fast growth in government debt and a rapidly rising number of the unemployed with a very slow growth in GDP does not indicate that the allocation of savings was particularly effective, to say the least. It was also accompanied by an increased average tax burden as compared to GDP growth.

The real reason for this sad state of affairs is that governments in the Euro area, and in other countries in the world for that matter, still think in terms of solving economic problems through their own actions -fiscal policies for instance- rather than through other means. A Euro area debt increase of nearly 12 times the increase in output shows a clear misallocation of savings over the last four years.

A tinkering in the margin is insufficient in addressing the major problems of a government debt increase and unemployment growth. In the next chapter various solutions will be suggested.

Take share price changes.

The losses and gains in share prices can be shown through two major indices: the Dow Jones Industrial Average index and the Euro Stox 50 index. In November 2007 the DJIA index reached 14,000. In February 2009 it had dropped to 6,500 and to reach 14,000 back in February 2013 and to end the year 2013 at 16,480 with a two trading days to go. The Euro Stox index stood at 4,500 in June 2007, dropped to 2,000 in January 2009 and is currently at the level of 3,099.

What this all means in savings patterns, is that for those who sold their shares between the middle of 2007 and the first two months of 2009, they realised serious losses on their savings. Ever since early 2009, large sums of additional savings have been allocated to acquire the stocks which represent these two indices.

What share prices should reflect is the longer term deterioration or improvements in the profitability levels of the underlying companies. What actual share prices reflect is the current perception of future profits. Irrational exuberance is a common phenomenon in the share markets.

One has to make a distinction between the price recorded for a share on the trading floor at whatever time of the day and the volume of the gains or losses made on the day, or month or year. The daily volume traded, times its share price, reflects the gains or losses as compared to the issue price of the shares. One day there may be a loss to the savings levels allocated to the shares if a share price drops, the next day when the shares appreciate in value additional savings are needed to

acquire the shares. The loss made in savings by some investors on day one is not compensated for by the additional savings needed to acquire the increased value of the shares traded the next day. Only those shareholders who did not trade would not have experienced a real savings' gain or loss.

In terms of economic loss -funds not channelled to output or employment growth-, both the realised share price loss plus the additional allocation of savings to get share prices to rise again, represent an economic loss as neither the actual loss on savings and the new allocation of savings to cause share prices to rise helps companies to increase output and employment levels. Again the concept of gains and losses should be seen in the context as to what happens to the savings allocated to make such gains or losses and whether they helped output or employment growth.

Take house prices

Just like share price losses, a lower level of realised sales price of houses reflect an actual loss of savings. On top of this, a realised sale of a house for which the price has risen faster than the original house price plus CPI inflation level, reflects an allocation of savings which has no benefit to output or employment growth. This statement has to be classified somewhat in that it remains true until the seller starts using the funds for consumption purposes and than only for the actual amounts allocated to consumption.

2.2 The size of the economic losses to savings

In the case of government debts, it is quite simple to assess the size of the misallocation of savings. Statistics, which provide the details, are readily available for nearly all countries. Secondly many governments have a tendency to continue running deficits to cover their expenses.

For shares transactions, such assessment is more difficult as shares may be traded by the institutions acting on behalf of individual households, such as pension funds, life insurance companies and mutual funds. Financial losses and gains are recorded, but not the accumulative effects of an initial loss to savings and the subsequent allocation of other or new savings. Pension funds and life insurance companies generally continue to receive new savings out of incomes on a continuing basis. Pension funds, of course, return some of these savings to the group of retired people over the life time of the retirees.

A house price misallocation of savings occurs both in the downward spiral of house prices -a savings destruction process- as well as in the upward movement, when house prices rise faster than the CPI inflation level. Both represent economic losses. If an individual household downsizes, the freed capital is usually used for consumption but over an extended period. Only the return from savings to actual consumption reflects an economic gain.

2.3 The economic process

The mis-allocation of savings process is not a self correcting process. In a previous paper: "The world's dream: economic growth revisited"[3] I have drawn attention to how in the U.S. the mis-allocation process started. For clarity sake it is repeated here:

"Over the period 2000-2006 in the United States the combined mortgage debt of individual households increased from $4.814 trillion as per the year-end 2000 till $9.874 trillion as per the end of 2006, an increase of 105.1%. Over the same period the median income level of individual

[3] http://mpra.ub.uni-muenchen.de/50190/

households moved up in nominal terms from $41,186 in 2000 till $47,262 in 2006, an increase of 14.75%. If one takes into account the increase in the number of individual households from 104.705 million in the year 2000 till 114.384 million in 2006 than the average amount of outstanding mortgage debt moved up from $45,977 in 2000 till $86,323 in 2006; an increase of 87.75%. The conclusion can be drawn that mortgage debt expanded by a factor practically six times faster than medium income levels. This excessive speed of lending for home buying purposes plus the packaging of such home loans into daily tradable mortgage backed securities lies at the heart of the causes for the 2008 financial crisis."

The same paper showed the extent that the house price inflation exceeded the CPI inflation levels and how the annual increase in outstanding mortgage amounts (use of savings) funded such excess. In table 1 below such excess has been illustrated for the period 1996-2008.

Table 1: U.S. Mortgages outstanding 1996-2008, annual increments in mortgage amounts, house price changes and consumer price inflation levels.

Year	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05	'06	07	'08
Total U.S. Mortgage portfolio x US $ trillion	3.54	3.75	4.05	4.43	4.81	5.30	5.98	6.83	7.81	8.91	9.90	10.58	10.5
Year on Year increase x US$ billion	218	216	301	377	383	507	680	850	944	1099	990	683	-57
House Price Inflation % y.o.y	2.24	5.10	4.61	5.81	7.67	6.04	6.48	7.29	11.08	10.44	3.33	-1.95	-13.3
CPI Inflation % y.o.y	2.95	2.29	1.53	2.16	3.25	2.77	1.56	2.23	2.59	3.28	3.12	2.77	3.70
Excess HPI over CPI %	-0.7	2.81	3.08	3.65	4.42	3.27	4.92	5.06	8.49	7.16	0.21	-4.72	-17

Table 2 shows the annual level of new housing starts in the U.S. The data from tables 1 and 2 show a strong correlation between the annual increase in outstanding mortgage amounts and the level of

such housing starts. One should not be surprised by such a correlation. However from 2002 till the beginning of 2006 the level of housing starts accelerated accompanied by house price inflation levels far exceeding the CPI levels. The mis-allocation of savings took place ever since 1998 and continued unabated till 2007. In table 3 the amounts of net new mortgage borrowings is set off against the number of housing starts for each year from 1996-2008 as well as the CPI value of the new housing starts.

Table 2: U.S. annual new housing starts[4] per 1 July, seasonally adjusted over the period 2000-2013

Year	Housing starts x 1,000	Year	Housing starts x 1,000
2000	1463	2007	1354
2001	1670	2008	923
2002	1655	2009	594
2003	1897	2010	546
2004	2002	2011	623
2005	2054	2012	741
2006	1737	2013 (1 August)	883 (annualised)

Table 3: U.S. Net new mortgage amounts divided by new housing starts for the period 1996-2007 and same housing starts and average mortgage amounts on a CPI based basis (1996 = 100)

Year	Housing Starts x million	Increase in Mortgage amount U.S. $ x billion	Average increase Per new House U.S. $	Average Per new House On CPI base (1996 = 100)
1996	1.472	218	148,098	148,098
1997	1.437	216	150,313	152,467
1998	1.698	301	177,267	154,800
1999	1.669	377	225,883	158,143
2000	1.463	383	261,791	163,282
2001	1.670	507	303,593	167,806
2002	1.655	680	410,876	170,424
2003	1.897	850	448,076	174,224
2004	2.002	944	471,528	178,737
2005	2.054	1,099	535,053	184,599
2006	1.737	990	569,948	190,359
2007	1.354	683	504,431	195,632
2008	.923	- 57	negative	202,870

Out of table 3 one can easily deduct the excess of savings which went into the U.S. housing market.

[4] http://research.stlouisfed.org/fred2/data/HOUST.txt

For instance for 2005 $719.8 billion mortgage borrowings (savings) out of the $1,099 billion of the increase in mortgage amounts were allocated for no other purpose than to push up house prices or in other words 65.5% of savings were used for financial rather than for an economic use. The same percentage applied for 2006. The financial use of savings far outstripped the economic one. The main cause of the 2008 financial crisis is here for all to see. The securitisation process of such mortgages; the extended sale of such mortgage backed securities to overseas parties; the accounting rules which turned valuation on a mark-to-market basis into a farce as liquidity for such bonds were not maintained by the banks which sold such mortgage bonds in the first place, all led to the collapse of the mortgage bond markets. In the U.S. in the period 2004-2012 21.4 million households, out of the 53 million households which had a mortgage, were affected by foreclosure proceedings and 5.4 million households had their home repossessed. The reaction of the collective of American individual households was to reduce the total outstanding national mortgage portfolio from $10.5 trillion in 2008 till $9.3 trillion as per the end of the second quarter of 2013. The $1.2 trillion was mainly paid out of incomes, as those who could afford to buy a property outright would most likely have done so and interest rates were very unattractive over this period. The whole winding down process of the U.S. housing market including the $1.2 trillion repayment of outstanding principal amount diverted incomes away from consumer demand. It was a savings destruction process on a large scale.

The U.S. case has been analysed as it has shown many similarities with the Euro area. The ripples from the U.S. recession blew over to Europe through less growth in international trade, stock markets which took a dive and government deficits which were or already had been blown out of the water, like in Greece.

What comes out of all of the above is that the process of the allocation of savings needs to be managed. In the case of the U.S. housing market, the free market principles did not lead to output and employment growth, but rather to the opposite economic position. Governments are generally not in the best position to re-allocate savings, as they -as politicians who want to be re-elected- have a self interest in preserving their spending powers rather than lowering the costs of government operations. Governments' extensive use of diverting savings flows into funding past government deficits and their habits of borrowing short in order to lend long term to themselves do not serve economies well.

Central banks have also had difficulties in finding their appropriate role. Banking supervision has shown many flaws, which have now culminated in about $130 billion in fines for the world banking sector and still counting. But who supervises the supervisors? The key process of Quantitative Easing, which in the U.S. has taken over about 20% of U.S. government debt outstanding with the public and in the U.K. about 32% of the U.K.'s government debt, has not led to strong output growth or employment growth. Also the side effects of low and for a number of years below CPI inflation level of interest rates were not all positive. The bank bail-outs and the requirements to banks to strengthen their equity base do the opposite of what low interest rates are supposed to bring about: increased lending to companies, large and small. Fines paid to the regulators do not help either.

In my view the emphasis should be shifted towards the Collective of Individual Households -the Coin economic theory-. The ability of individual households to get their own income, expense and savings accumulation back under control, is quite astounding. However in their efforts individual households find regulatory and managerial obstacles on their path which they cannot overcome.

For the Euro area, which shares a common currency; the Euro, international trade flows are not enough to restore output and employment growth. The current diversion of savings to fund government debt, the drop in share prices since 2008 and the drop in house prices in most Euro area countries with the exception of Germany and Austria has not helped but rather hindered the individual households to get back on their feet.

There are options to shorten the adjustment period and to get output and employment levels to grow, based on the concept of the re-balancing of the allocation of savings. In the subsequent sections the following options will be discussed: economic easing, bank reforms, government funding structures, intra country assistance among Euro area countries and the path back from quantitative easing. However before addressing these options two other issues need to be discussed: the practice of quantitative easing and the difference in legal structure between banks and pension funds.

2.4 Quantitative easing

Central banks in the U.S., the U.K. and the Euro area have practised some form of quantitative easing (QE). Central banks have created money, not out of income but by using the printing press. The concept of savings is not applicable to such money created. However its impact has been felt in three ways:

- Money (not savings) was invested in mainly government bonds. The acquisition of these bonds meant that the sellers had received cash -which appeared like savings- and had to find another outlet for such cash. In the meantime governments in the U.S., the U.K. and the Euro area continued to incur substantial amounts of additional debt. The government debt increase for the Euro area was Euro 2.174 trillion from 2008-2012, for the U.K. a £630 billion debt increase from fiscal year 2008 till fiscal year 2013, for the U.S. an increase of government debt of $4.707 trillion from fiscal year 2008-2012. The total amount used for QE in the U.K. was £325 billion. In the U.S. the QE exercise did pump $2.3 trillion into the banking sector. For the Euro area different methods were used which did not actually acquire outstanding government debt, but temporarily funded such debt titles. The conclusion is that QE did not actually pump funds into output or employment growth. This was not due to the Central Banks' own actions, but due to the actions of their respective governments in increasing their debt levels faster than QE did compensate for.

- What QE did do was to substantially lower long term government bond yields. For a long period between 2008 and December 2013 the 10 year yields became negative in terms of yield after CPI inflation. Currently in all areas a small positive margin over inflation has been reached. The effects on Defined Benefit pension schemes have been devastating. The promise of an inflation proof pension meant that employers had to fork out substantial amounts of cash to support their schemes. Such "labour costs" plus the recession period meant that disposable incomes grew less than CPI inflation levels.

The Confederation of British Industry did a survey (published 10 December 2013)[5] on the impact of low interest rates on their members' ability to invest. The following conclusions were provided:

- More than two thirds of respondents (70%) with DB schemes report that their cost is having an impact on business investment, rising to 78% among manufacturers.

[5] http://www.cbi.org.uk/media-centre/press-releases/2013/12/business-investment-being-stifled-by-cost-of-defined-benefit-pension-schemes-cbi-standard-life-survey/

- Almost half of respondents (46%) report that operating a DB scheme is restricting their ability to borrow with six in ten firms stating that employer debt regulations are hampering internal corporate restructurings, M&A activity and asset sales.
- However, DB provision seems to have stabilised following the upheavals of the financial crisis. The majority of businesses (64%) don't plan to make any changes.
- The cost of DB remains a massive challenge. The primary concern of respondents (97%) is the impact of market volatility on funding positions, with 84% reporting that the funding level of the scheme is a concern.
- The result is that nearly nine in ten businesses (88%) are concerned about the prospects of contributions going up in their next funding agreement with trustees.
- The number of respondents that are not satisfied with the Pensions Regulator's (tPR) dealings with their company has more than doubled (28% in 2012 from 12% in 2011).
- Eight out of ten businesses have yet to see a change in behaviour from tPR or trustees since the introduction of the new statutory objective – businesses are hoping the new code of practice will change this.

The conclusion is that QE transferred non-savings cash to banks and other institutions. This cash was more than absorbed by the increase in government borrowings in the two countries and one region. On a net basis no savings were transferred to either the consumers or the business sectors in the U.S., the U.K. and the Euro area. What did have an impact were the lower interest rates. However this impact was negative for larger companies which support DB schemes. Evidence in the United States, but also from other countries, has shown that SME's did generally not benefit either. Banks were reluctant to lend due to all the pressures from the regulators to increase their equity capital levels plus the hang-over from previous loan losses. QE was an ineffective tool to induce companies to produce more and for the consumers to consume more. Perhaps also Central Banks encounter limits in their abilities to steer savings into economic activities through their monetary policies.

2.5 The participants in the savings allocation process

One may wonder why a pension fund is generally not organized as a company, but as a foundation or trust fund. Banks, life insurance companies and mutual funds are -and nearly all have been- set up as companies. All four institutions allocate savings of the individual households to the various uses for such savings. Why should there be a profit motive for the latter and not for the pension funds or why are banks, insurance companies and mutual funds not organised like pension funds. What these asset allocation organisations have in common is that they all receive all their funds directly or indirectly from the collective of individual households. What they also have in common is that each organisation has to place the funds with various users; a government, a company or an individual household, the latter mostly for the purpose of mortgage lending. Shares, bonds, mortgage backed securities are instruments all of them use or have used as instruments to place their funds. Currency swaps are widely used if foreign assets are acquired. The only difference between a bank and the other institutions is not one of principle, but one of semantics. Banks can take deposits; officially the other entities only receive savings. Deposits are savings but with a specific time period attached, which really is a very minor difference.

The real question is: do banks do a better job if they are organised in a company structure or do pension funds trustees do a worse job as they are not organised as a company. The experience is that the write downs on doubtful debtors and the mis-selling scandals as well as the extra-ordinary remuneration levels for some bankers do not inspire confidence in the bank company structure. In

general the collective individual households are the ones, who pay when things go wrong, not the bank managements or governments. In section 3.3 a suggestion is made for how to turn banks as companies more into banks as service entities to the collective of individual households.

What applies to banks equally applies to insurance companies and to mutual funds. It also applies to credit card companies and payday lenders to mention just a few of the other financial sector companies.

3. The way forward

3.1 Introduction

What comes out of all of the above is that the allocation of savings needs to be re-balanced from time to time; it needs to be managed. In the case of the U.S.' housing market, the free market principles did not lead to output and employment growth, but rather to the opposite economic position. Governments are generally not in the best position to re-allocate savings as they -as politicians who want to be re-elected- have a self interest in preserving their spending powers rather than lowering the costs of government operations. Governments' extensive use of diverting savings flows into funding past government deficits and their habits of borrowing short in order to lend long term to themselves do not serve economies well.

Central banks have also had difficulties in finding their appropriate role. Banking supervision has shown many flaws, which have now culminated in about $130 billion in fines for the world banking sector and still counting. But who supervises the supervisors? The key process of Quantitative Easing, which in the U.S. at the time has taken over about 20% of U.S. government debt outstanding with the public and in the U.K. about 32% of the U.K.'s government debt, has not led to strong output or employment growth. Also the side effects of low and for a number of years below CPI inflation level of interest rates were not all positive. The bank bail-outs and the requirements to banks to strengthen their equity base do the opposite of what low interest rates are supposed to bring about: increased lending to companies, large and small. Fines paid to the regulators do not help economic growth either.

In my view the emphasis should be shifted towards the Collective of Individual Households -the Coin economic theory-. The households' ability to get their own income, expense and savings accumulation back under control, is quite astounding. However in their efforts individual households find regulatory and managerial obstacles on their path which they cannot overcome.

For the Euro area, which shares a common currency; the Euro, international trade flows are not enough to restore output and employment growth. This is notwithstanding running a surplus in goods trade with the rest of the world. The current diversion of savings to fund government debt, the drop in share prices since 2008 and the drop in house prices in most Euro area countries with the exception of Germany and Austria has not helped but rather hindered the individual households to get back on their feet.

There are options to shorten the adjustment period and get output and employment levels to grow, based on the concept of the need to re-balance the allocation of savings. In the subsequent sections the following options will be discussed: economic easing, bank reforms, government funding structures, cross-border assistance among Euro area countries and the path back from quantitative easing.

The main aim of all these measures suggested is to get the collective of individual households to help themselves as this is the most efficient manner to run an economy. The main aim is to correct on a temporary basis the self destructive powers of an excessive allocation of savings made to a financial use.

3.2 Economic easing

Individual households do not save with the purpose of seeing their savings destroyed by negative returns. Their aim is to see the economy grow so that savings benefit from the increased economic activity both by increased output and increased income levels.

In the above it has been explained that there are large volumes of savings allocated to uses which do not help economies grow.

If one studies the saving rate of the collective of individual households in the Euro area it has varied somewhat around 13.5% of individual households' income over the period since 2002. In the U.S. the accumulated net worth of individual households is about 4.5 times annual GDP. In the Euro area there are no recent precise data on this but with a savings rate of 13.5% over a longer period of time, the total net worth of Euro area individual households is likely to be below the U.S. level but highly likely to be a low multiple of the Euro area's GDP.

Economic easing can be defined as the process of channelling savings away from the financial use and to its economic one.

In countries like The Netherlands the pension reserves stand at 156% of GDP and in other Euro area countries like France and Germany the insurance technical reserves are all very substantial. The richer countries do not lack savings, but they do lack mechanisms to channel such savings to an economic use.

An economic easing scheme can be applied domestically as well as cross border between countries in the Euro area.

3.2.1 Example of a domestic scheme: The Netherlands

In the Netherlands the pension funds have accumulated funds to the extent of 156% of GDP in 2012 according to the Towers Watson Global Pensions asset study[6] 2013. This amounts to Euro 935 billion. The OECD in their Better Life statistics[7] noted that in the Netherlands the average disposable income per household in 2012 was Euro 33,200 with the top 20% receiving Euro 62,648 and the bottom 20% Euro 14,563 on average. With slightly over 7.5 million households in the Netherlands the total disposable income is close to Euro 250 billion.

To achieve the objective of transferring some savings from a financial use to its economic one, the collective of pension funds could be asked to spend Euro 7.5 billion a year, which is less than 1% of their savings, as an economic use injection for the benefit of its savers. The Euro 7.5 billion translates in about Euro 1, 000 per pension saver and beneficiary. If this amount is paid out equally to all pension savers and beneficiaries, it will benefit the lowest 20% income group with a 6.87%

[6] http://www.towerswatson.com/en-GB/Insights/IC-Types/Survey-Research-Results/2013/01/Global-Pensions-Asset-Study-2013
[7] http://www.oecdbetterlifeindex.org/countries/netherlands/

income injection, the average income group with a 3% income injection and the highest income group with a 1.6% income injection. If the Dutch government agrees to allow this payment to be made tax free, it will create the maximum economic impact.

If the Dutch pension savers are requested to use these funds for consumption spending rather than turning them back into financial savings, a boost to domestic demand will be created which will have multiplier effects for the manufacturing and service sector industry. If such injection is followed up in subsequent years (probably for no longer than two or three years) and entrepreneurs know that such stimulus will be continued till the Dutch economy is back to its long term growth potential, than the multiplier effects will be the strongest. With increasing output and more job opportunities the Dutch government's tax revenues will increase without any change in tax rates. The Dutch government will also need fewer savings to fund its deficit, leaving more savings available for economic purposes. Banks will experience a lower level of doubtful debtors among its customer base and the outlook for the housing market becomes more positive as more households will be in full employment.

Why would the Dutch pension funds wish to participate in such action? Firstly pension funds benefit if companies do better as share prices will increase. This is a financial gain, but one based on real output growth rather than being based on speculation only. Secondly more people will want to save with the pension funds as such economic easing exercise can be repeated whenever the savings allocation pattern gets out of balance again. Finally the Dutch government could issue a short-fall guarantee in case the share price increases would not cover the paid-out amounts, based on the 10 year government bond yield developments. Such settlement could be made three years after the start of the economic easing exercise. It is unlikely that pension funds will have cash-flow problems as a result of these pay-outs as their dividend and interest received will certainly be more than 1% of their portfolio. However to ease the cash-flow considerations, the pay-out could be staggered into two semi-annual payments of Euro 500 each. Furthermore the ECB could via the Dutch Central Bank (DNB) make short term funds available to those pension funds, which experience temporary cash-flow problems. The aim is to avoid having to sell financial assets for supporting economic easing.

3.2.2 A cross-border scheme in the Euro area.

The European central bank (ECB) has as one of its main tasks to protect the value of its currency: the Euro. Cross-border economic easing would be one of the best ways to do so for Euro area countries. What the ECB has currently done is exchanging government bonds of various Euro countries into Euro loans for liquidity support. Such support has the same draw back as quantitative easing: it creates liquidity in the financial savings markets, but does nothing for individual households.

A better alternative would be to create a transfer mechanism to get some financial savings back to an economic use. This could be achieved as follows: the ECB borrows in the international financial markets by issuing ECB bonds. Such activity does not create money, but transfers money from one type of savings to another. As an example take the case of Spain: the proceeds of such bonds are transferred from the ECB to the Bank of Spain, Spain's central bank. The concept is that Spain's central bank will organise a distribution of the proceeds over all 17.4 million Spanish households. Again the principle of an equal amount of cash for each household could be applied. This will help the lower income level households more than the more affluent ones. It makes economic sense.

In Spain the current average net household income level runs at Euro 23,123 in 2012 according to INE, Spain's national statistical office[8]. This is practically 10% less than the 2005 level. To kick start the economy a cash injection of 4% in year one over the average net household income, followed by a lower percentage a year later, would probably be the best approach. Again one fixed amount of Euro 925 per households would best be paid to all households, which helps the lowest 20% of the households the most and the top 20% the least. Total costs Euro 16.1 billion in year 1. Again the best approach would be to allow this amount to be paid tax free. The Euro 16 billion is a fraction of Spain's government deficit of Euro 109 billion over 2012, but such deficit has had no lasting impact on unemployment levels as it did not deal and could not deal with the substantial deterioration in individual households' average income developments. Cross-border economic easing can make the difference.

The pay back could be arranged out of general tax receipts over a ten year period including a two year grace one. The outstanding loan could be paid back in equal instalments over the remainder eight years. Of course, the expectation is that with the multiplier effects tax revenues will increase, without having to change the tax rates. For Spain it does not count as government debt as the Spanish government has not incurred a government deficit to fund this transaction. It is in effect a collective individual households' debt to be repaid out of the tax income generated out of the increased economic activities of the working population.

The ECB could issue 10 year index-linked bonds. Such bonds could be linked to the average inflation rate in the 17 Euro area countries. Such bonds have two advantages over fixed rate bonds. Firstly the ECB makes use of a combined inflation rate from the 17 countries sharing the Euro as their currency. Secondly the ECB reduces the risks to all type of investors -institutional or private- to see the values of the bonds fluctuate strongly in case the Euro interest rate based on the average inflation rate has to be increased. Especially institutional investors will benefit from this as their mark-to-market accounting method will not show substantial losses when interest rates rise. For both institutional and private investors the positive yield over inflation will bring in a cash flow which is more likely to be used in an economic use rather than being kept as a financial saving.

The ECB could repeat the transfer of savings from a financial use to an economic one for other Euro area countries, if needed. This could be done especially for those Euro area countries which lack the financial resources accumulated in pension funds and life insurance companies.

As a method it will bring home the message to all Euro area citizens, that the ECB is not only there to maintain the value of the Euro, but also to stabilise Euro area economies as and when a re-balancing of an allocation of savings is needed. The Euro as a currency will be strengthened, but not unimportantly, Euro area citizens will experience a direct benefit from being a citizen in one of the Euro area countries.

3.3 Banking reform

Many steps have already been taken to make the ECB have more influence over the solidity of the banking sector in the 17 Euro area countries. An ECB based regulatory authority is to be established in 2014. The chairperson has already been appointed. A bank-bailout fund will be established with bank contributions stretching over a period of ten years.
In a previous section the question was already raised why pension funds have a different legal structure than banks and life insurance companies.

[8] http://globaleconomicanalysis.blogspot.co.uk/2013/11/spain-household-income-drops-10-to-2005.html

The U.K. Pension Regulator formulates the role and responsibility of a trustee as: "It is the trustees Board's legal duty to make sure that the right processes, systems, people and procedures are in place to manage the (pension) scheme, its investments and the risks that can arise."

Is it not striking that the Board of a bank has the same responsibilities as those just described for the trustee Board of a pension fund. Why is it than, that a Board of a bank has only to report to its shareholders meeting rather than to all fund providers?

In the discussions about banking reform it has already been agreed and even practised like in the case of Cyprus, that other groups rather than the shareholders should feel the pain if the Board of a bank has made serious mistakes. For instance it has been agreed that subordinated debt holders as well as large depositors should pay for the mistakes of bank managements. This all with the aim to avoid another series of government (or rather more precisely the collective of individual households) supported bail-outs. It is illogical to share losses without having any say and responsibility over the decisions taken. Losses made by banks are as serious as losses made by pension funds.

My suggestion is to gradually convert banks to something more similar to pension funds. This can be done by turning banks more into saving entities with an economic purpose. If one introduces three different risk categories: shares, subordinated bond and large deposits than it should be logical that the rewards warrant a different level of remuneration for each category, but there should be no difference in the date of payment. Bank profits should not be assessed before profit distribution, but after all risk categories have been paid, including shareholders. Assume shareholders receive a fixed interest rate over their shares, payable annually: than such shares are in effect turned into perpetual bonds of the highest risk category. The principal amount of the bonds may be lost but as long as the bank exists it has to pay out such income flows before declaring its profit levels. Subordinated bonds are the second risk taking category, but of a lower risk category. Therefore the interest applied should be slightly lower than for "shareholders". Thirdly large depositors should be made aware that their money is also at risk and therefore their interest compensation needs to reflect this. Banks should be forced to publish these interest rates on their websites for all to see. For small depositors most countries already offer a protection scheme in case a bank fails.

Banks should no longer have "shareholder" meetings, but "risk" holder meetings where all risk holders are represented. The need for additional buffer funds will show up in the "price" of shares and subordinated bonds on the stock markets as and when they start trading below par.

The new Volcker rules will mean that the chances of banks dealing for own account will be severely curtailed. The real beneficiaries will be the risk stakeholders as under the old system the risk division between the collective individual households who provided the funds and the dealers who put these funds out at risk was usually: a gain the dealer wins; a loss the savings providers lose.

3.4 Government funding structures.

This section is more generally applicable than just for Euro area countries. All governments which borrow in the capital markets do so to fund expenditure that exceeds their government revenues. Such deficit funding rarely creates a cash-flow for a government in subsequent years. In the above it was highlighted that governments generally do not behave as ordinary borrowers. They continually roll-over debt on basis of a maturity mismatch. No ordinary household -either as an individual or as a company- could arrange such type of borrowing.

For the fund providers -the savers- there are a number of risks involved. The first risk is the accounting risk. The regulators have decided that government bond values can only be assessed on a day by day value base which is the mark-to-market method. For individual holders of government bonds such accounting method makes no difference: one may decide to keep the bonds to maturity, accepts the interest rate paid over such bonds and does not worry that there may be other bonds in the market which pay a higher interest rate. On the other hand for personal cash flow reasons one may sell the bonds. For banks and pension funds however, such accounting methods are supposed to be essential in reflecting fair values of assets and liabilities and of future cash outflows and inflows.

The second risk is the risk of inflation. What matters for individual households and thereby for companies supporting Defined Benefit schemes as well as for pension funds and life insurance companies is whether the interest rate covers the depreciation/appreciation risks to the value of a bond as a consequence of the effects of CPI inflation rates?

What government bonds should reflect but currently do not reflect is that the collective of savers have no option but to stay invested in government bonds for at least 70 or 80 years as any shorter period would imply collective economic suicide. On top of this the practice of quantitative easing created the situation that savers had to compete against central banks. The latter created money at no cost to these banks. Each government, which depends on savers to provide it with the cash to cover their debts, would know that the higher the debt level, the longer it will take to pay off such debt and the longer the commitment of the savers need to be to help out governments.

Governments require all other financial institutions, such as banks and pension funds to have clear cash in and outflow analyses over the total period of their commitments, however governments fail to practise for themselves what they preach for others.

How can a one day sales price of a ten year bond reflect a fair value for an uncertain 70 or 80 year obligation? How can quantitative easing by central banks be called “fair” as the zero costs of money to the issuer does not compare with the economic act of giving up consumption in order to save for a future expense? Why do governments not recognise that their use of savings is to a very large extent a financial use and does not add to income or output growth after the initial year of spending such savings? Why is it that governments have difficulties in accepting that economic risks to the individual households: the risks to their real -after inflation- income levels, affect the economic performance of a country? Why do governments not issue all their debt in index-linked bonds? Such action would prevent that incomes out of individual households’ savings will be negatively affected over the whole period of funding i.e. 70 or 80 years. It would do away with the question of fair value as a fixed reward over the prevailing inflation rate is always fair. It may create some difficulty for actuaries as future incomes and expenses for pension funds cannot be discounted at a fixed rate, as there will be no fixed rate: the rewards for savings will be a continuously floating rate based on the CPI inflation levels plus a fixed margin.

Perhaps Parliaments will have some time to discuss such questions as they are vital to an economy.

3.5 Pension funds contributions to economic growth

Pension funds, acting as savings institutions, have grown in importance in many countries, but especially in the U.S., the U.K., Switzerland, the Netherlands, Australia and Canada, where apart from Canada, they have all reached a savings level equal or over annual GDP levels of their respective country.

Such mass accumulation of savings does require serious thoughts about the impact of such savings on output and employment growth.

Pension regulators seem more worried that each fund has the reserves to pay the committed amounts to each fund's future pensioners, rather than encouraging these pension funds to act collectively in the interest of an economy. In the previous sections it has been spelled out that imbalances can arise in which financial savings grow rapidly, but the economic use of such savings is negligible. Hopefully pension regulators do not only focus on fair value accounting, based on the wrong maturity of government debt, based on savings allocations to shares, which have no relation to the funds received by companies and based on the notion that individual households need to save more otherwise their wish to live relatively happily in retirement cannot be fulfilled.

Perhaps, pension funds themselves individually and collectively through their pension federations and in concert with the pension regulators could study the savings flows and see when a re-balancing of such flows is required.

3.6 The path back from quantitative easing

Quantitative easing has taken place in the U.S., the U.K. and in a more indirect way in the Euro area. Central banks are now owners or in the case of the ECB stake holders of a substantial share of outstanding government debt. Central banks were never created to print money to fund government expenditure. They more than any other organisation were entrusted with the task to maintain the values of their respective currencies and to supervise the financial system with the aim to encourage economic growth and full employment.

To arrange for the portfolio of government bonds to be released back to the private markets a few principles may be taken into account.

Firstly the cause of the latest financial crisis in 2008 was the extensive home mortgage lending to individual households in the U.S. and the subsequent selling method through mortgage backed securities for which the sellers did not maintain a market. The latter shows the typical financial markets trading mentality: in good times we gain, in bad times individual households lose.

In 2001 it was mainly the dot.com bubble which was to blame for the short recession.

The latest financial crisis seriously affected individual households. Therefore a main role for central banks is to take measures which avoid the excessive home mortgage growth. The national home mortgage portfolios were not created by a single bank, though some were more aggressive than others. The portfolio was created by the collective of banks in the U.S., and in Spain for instance. Therefore, as pointed out in section 2.3, a warning system could have been put in place when more than 65% of the increase in mortgage lending went into house price rises rather than in new construction. Such warning system could work not by raising interest rates, but by making mortgage lenders pay for the excess lending. Such system can be quite simple: it can be a traffic light system to the mortgage providers. Green is the light for: keep lending; amber for slow down or you will face speeding fines and red for speeding fines, which will be assessed per lending institution on

basis of their incremental home mortgage activities. The same warning system should be applied to investment banks, which refuse to maintain a market in their financial products sold.

The traffic light system avoids individual households overstretching themselves in their borrowings. It also avoids a contagion effect to all market participants including real sector companies and individual households which are the ones who to have to pay more as a consequence of the higher interest rates for their borrowings. Thirdly it avoids banks to have to write off a sizeable portion of their loan portfolios in future years. The latter hinder their lending capacity for economic purpose activities.

It is generally accepted that prevention works better than a cure.

The cure chosen by central banks was quantitative easing. The consequence was a serious lowering of interest rates, which worked well for those who had financial assets, like hedge funds, but much less well for pension funds and life insurance companies and indirectly for companies which supported and still support Defined Benefit pension schemes. Pension funds and life insurance companies not only have financial assets, but also future liabilities. When a promise of an inflation proof pension pay-out has been promised -a promise which governments widely practice for their own civil servants and members of parliaments- than the liabilities require an above inflation revenues flow over the assets. The only way to ensure such above inflation rewards is to change the debt portfolio of the largest borrower in a country with the longest maturity schedule: government debt. In the U.S. and in the U.K. both governments have issued index-linked (also called inflation-linked) government bonds. In the Euro area France, Germany and Italy have done so.

To avoid the mark-to-market losses, which are inevitable for existing fixed rate government bond portfolios as soon as interest rates have been raised, the central banks can make a debt swap with the government debt issuer in order to turn the currently held fixed rate portfolios into inflation-linked government bonds. The latter bonds are much more in character with the long term funding needs of governments and reduce the risks to the long term bond holders such as pension funds and life insurance companies. If one takes a 1% over CPI inflation as a benchmark for a 70-80 year government debt obligation than for the U.S., the U.K. and for the Netherlands than the evidence suggests that for nearly every year over the last 25 years, such inflation-linked bonds would have been cheaper for the respective government and thereby for the collective of individual households.

4 Conclusions

The question was asked whether savings promote or hamper economic growth. This paper has analysed savings from the perspective of savings made available to individual households and to goods and service sector companies for consumption and production purposes. It has separated the financial sector from the service sector as the financial sector institutions allocate savings over various uses on behalf of the collective of individual households. This allocation process has not been a smooth one.

Governments do not behave like ordinary borrowers. Firstly, they and they alone among all households, can raise their own income levels by increasing tax rates. Secondly their accumulated debt levels are funded not on basis of an expected future cash flow over the whole period that the debt will be outstanding, but on basis of short term borrowings which fund long term lending needs. No other household can borrow in such manner. Thirdly the combination of short term funding and long term debt exposure creates serious risks to the collective of households, especially the risks of below inflation yields over government bonds and the risks of mark-to-market assessments when interest rates come down and go back up again. The latter risk is not based on the full maturity of the exposure but only on a short period of it. Therefore the mark-to-market assessment provides the wrong guidance to financial sector institutions, which are forced to apply such accounting rules. Issuing a much larger volume of inflation linked government bonds will reduce such risks.

Finally government debt outstanding for longer than a year rarely creates a cash flow for the government. Its use of savings after the initial one year of spending becomes one of a financial use of savings rather than an economic one. Its use of savings makes it impossible to allocate such savings to economic growth opportunities created by either the company sector (supply) or the collective of individual households for increasing demand levels.

When companies raise funds from the stock markets, they usually do this to fund their operations: an economic use of savings. However when trading starts among the market participants savings are used to help increase share price rises and savings are lost for those market participants who sell below the buying price. In both cases a company does not get a penny more. Such use of savings is, just like government debt outstanding for over a year, a financial use of savings as no funds are transferred to the company itself. The price quoted bears no relation to the demand for funds from a company. It is a financial price rather than an economic one.

The third element is the funding of homes, especially when borrowed funds are used. In the above it was made clear that such use of savings can from time to time be made to enhance house price rises far above CPI inflation levels. Economically speaking such price rises do not reflect supply and demand as the money used far exceeds the costs of building new homes. In 2005 and 2006 65% of all savings allocated in the U.S. to the national housing market were not used for increasing the supply of homes, but for increasing the prices of existing homes. Such allocation of savings was yet another example of a financial rather than an economic use of savings.

The conclusion is that the savings allocation process can proceed in one direction for too long, like in the case of the national mortgage portfolio in the U.S. and the house building programme in Spain. Economic growth does not take into account government debt levels and its funding structure; it does not take into account share price drops and rises and it does not take into account house price rises above or below CPI inflation levels. However all these changes affect the savings allocations. The distinction between a financial use and an economic one of savings helps to make clear that there are periods that the financial use absorbs far more than is good for a continuing economic growth pattern and for full employment.

In the above a number of options were developed of how to temporarily change the allocation of savings towards a more economic use. Economic easing was elaborated upon, both the domestic variant with the help of the local pension funds industry, or the international variant with the help of the ECB for the Euro area countries. A traffic light system was explained for curtailing a too rapid growth in lending for house buying purposes. The need for more inflation-linked bonds was set out as a way out of the position caused by quantitative easing. Finally the banking sector was focussed upon as its profit motives and shareholder structure does not tally with the risks that individual households run on the banks. Shares could be turned into perpetual bonds of the highest class of risk, whereby "dividends" are payable before a profit assessment of banks. Shareholder meetings should become "risk" holder meetings.

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