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The United Kingdom: Economic Growth, a Draft Master Plan

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Introduction

The way in which economic developments are studied leaves much to be desired, not just for Britain but also for many other countries around the world. In this paper the analytical tools chosen to describe what happens to all citizens in the U.K. are the balance sheet, income and expenses tools: the same tools as used by companies. It comes down to what all Brits own and owe and what they earn and spend as well as the amounts they save for future spending and the returns over such savings.

What the real economic growth figures measure -in volume changes- is how much the produced quantity of goods and services changes from one year to the next. One type of gain or loss, which is included in the GDP data, is shown in the current account figures. They represent the difference in what all U.K. households buy in goods and services from abroad and how much they sell abroad.

GDP, as a volume output measure, does not tell whether house prices are too high as compared to incomes. It also does not tell how homes are financed and what risks such financing methods represent. It does not tell whether incomes keep pace with inflation levels. It also does not tell whether the production capacity is too high for the demand levels -an output gap- or that demand levels are too low -an income gap. It does not show the labour force participation rate, when sometimes job seekers are so disappointed in finding jobs that they do no longer register as unemployed. It does not show the number of companies closed in a particular year, after struggling to survive in previous years. It does not show the losses banks make on individual, company and government loans or on other products like payment protection insurance or interest rate swaps. It does not show that the Bank of England's quantitative easing policy has helped to reduce the return over U.K. government gilts below inflation levels and simultaneously increase inflation levels. It does not show whether economic growth was "bought" through additional borrowings and what effect such borrowings will have on disposable incomes in future years. It also does not show that putting additional savings into financial assets can sometimes mean that too little of the income generated is used for creating demand in the real sector.

The U.K., just like the U.S., is in the fortunate situation that it publishes the statistics on what individual households own and owe. By having these published for a number of years one can deduce what individual households earn and save and how effective such savings have been in bringing about a financial return and a real economic growth return. In the U.S such data are published on a quarterly basis, in the U.K on an annual basis.

Only in combining the study of incomes with the use of such incomes can one reach some conclusions on what might be done to help improve economic growth in the U.K. and in other countries.

Some proposals have been formulated in this paper. They cover home mortgage lending, which deals with the most important fixed asset for nearly all individual households. They deal with economic easing, which aims to close the income gap in demand. It also deals with bank restructuring and income generation out of government debt. The writer has no illusion that such proposals are exhaustive. There may be many more good ideas, hence the term used in the title: "draft".

The paper hopes to be instrumental in setting off a discussion between all parties involved. Only if all parties -the U.K. government and opposition parties, the Bank of England, the banks, the company sector, the pension funds and the individual households- are involved, will a solution to this and future crises be found. Economies are interdependent and can only be managed effectively through such forms of co-operation.

1. U.K. Individual Households: Net Worth' Developments 2002-2011

In the U.K. the Household Net Worth data are collected on an annual basis¹. The latest data available are over the year 2011.

Individual households in the U.K owned £4.30 trillion in non-financial assets in 2011 and another £4.28 trillion in financial assets in 2011. They also owed £1.54 trillion in financial liabilities. This left them with a net worth level of £ 7.04 trillion. Taking into account net government debt - national and local council ones- individual households owned £6.84 trillion. The difference was mainly the Central Government's net debt position of £763 billion and the local governments' position of net surplus funds of £504 billion.

The key assets of individual households were dwellings at £4.1 trillion, insurance technical reserves (mainly pension funds) of £2.2 trillion and currency and deposits of £1.3 trillion.

The main liabilities were loans of £1.45 trillion, of which £1.25 trillion were mortgage loans and £200 billion consumer loans.

Over the period 2002-2007 the total net worth of all individual households increased by £430.3 billion in 2003, £431.1 billion in 2004, £475.8 billion in 2005, £504.9 billion in 2006 and £420.9 billion in 2007. In 2008 the net worth showed a dramatic loss of £841.2 billion, which equalled 58.7% of 2008 nominal GDP. In the years to 2011 this loss has barely been recuperated, let alone that any growth path was created identical to the 2002-2007 net worth improvements.

These gains and losses arise from both produced as well as financial assets. They also reflect the changes in borrowing levels as well as the changes in the savings levels out of current incomes. The Household Net Worth data provide the clear link between financial actions taken -changes in borrowings and savings- and the output produced. The question posed in this paper is: If it was possible to achieve net gains in the collective households' net worth over the period 2002-2007 to the extent of over £450 billion a year, combined with real economic growth levels of between 2.6% and 3.1%, why did such gains turn to losses over the period 2008-2011?

The U.K. Office of National Statistics did issue a warning that some figures in the data might not be fully comparable to previous years. Any error made in this paper in comparing one year to the next is therefore unintentional.

In this paper the effects of U.K. government' savings and borrowings have been excluded, but they will be discussed separately.

In the next section attention will be paid to the most important fixed asset individual households can own: their homes.

¹ http://www.ons.gov.uk/ons/dcp171778_276513.pdf

1.1 The U.K. Home Mortgage Market

In table 1 an overview is given of the loan increases -year over previous year-; the home dwellings value increases, again year over previous year and the net equity impact on individual households. (Source U.K. Individual Households Net Worth data).

Table 1: U.K. Home value changes from year to year, loans' changes and the net equity effect on individual households 2003-2011 in £billion.

Year/ £billion +/-	2003	2004	2005	2006	2007	2008	2009	2010	2011
Home Values	301	352	115	360	381	-388	138	210	28
Loans	113	133	70	124	111	51	-7	7	-2
Equity: Home Values +/- Loans	188	219	45	236	270	-432	145	203	30

From the above data it will be clear that the loss in equity of individual households on their homes of £432 billion in 2008 stopped any increase in mortgage and consumption lending in the following years. The table also shows that the equity loss had not been recuperated by the end of 2011 and this is in nominal terms. In real terms after taking inflation levels into account, there has been a very sizable loss continuing till to-day. Just to put this loss into perspective, it represented 30.1% of nominal GDP in 2008.

In the next section U.K. house prices, housing starts and the level of mortgage approvals will be highlighted.

1.1.1 House price developments, Housing starts and Mortgage approval levels.

Lloyds Bank's subsidiary Halifax² has published a summary table of house price developments over the key two periods: Q2 2002 till Q2 2007 and Q2 2007 till Q2 2012, which is reproduced below in table 2.

Table 2: UK house prices by property type, 2002-2012 (Source: Halifax)

Property Type	Q2 2002(£)	Q2 2007(£)	Q2 2012(£)	5 year % change 2002/07	5 year % Change 2007/12	10 year % Change
Terraced	107,327	209,917	151,568	96%	-28%	41%
Bungalows	135,757	229,520	185,365	69%	-19%	37%
Semi-detached	120,728	216,872	165,565	80%	-24%	37%
Detached	205,224	359,497	282,211	75%	-21%	38%
Flat	130,248	215,439	161,663	65%	-25%	24%
All Properties	137,273	241,838	179,170	76%	-26%	31%

In Great Britain there are three groups of home builders: local authorities, housing associations and the private sector. Over the last 10 years local authorities new housing starts were always less than 2% of the total housing starts and often even less significant. Housing associations housing starts varied between 10% and 22% of the total new housing starts, whereby one should note the actual number of their housing starts did not vary very much over the last eight years with an actual number of starts between 24,000 and 29,000, but that the variations were in the number of private sector housing starts.

In table 3 the housing starts³ are provided from 2002-2011

Table 3: Great Britain annual new housing starts 2002-2011

Year/ Housing starts	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Housing Associations	18,500	19,620	24,230	26,190	26,420	29,460	29,060	25,580	27,630	25,190
Private sector	163,700	175,480	189,090	182,730	181,970	185,640	97,550	73,190	93,110	102,240
All dwellings	182,390	195,400	213,520	209,120	208,730	215,670	127,140	99,350	123,210	129,840

² http://www.lloydsbankinggroup.com/media/pdfs/halifax/2012/2909_detached.pdf

³ <http://www.statistics.gov.uk/hub/people-places/housing-and-households/housing-stock>

The demand and supply side of the housing markets have been diverging for a while now. New households' formation indicates a need for new dwellings to the extent of some 233,000 per year⁴. There is already a substantial backlog in building homes for individual households.

The need for new dwellings is clear. Supply, demand and the price mechanism do not seem to get the market moving in the desired direction. The main cause is that the supply is driven by demand, but demand is not driven by supply but by individual households' income and home equity levels. The situation has been made worse in that a higher level of supply was not accompanied by house price drops but by steep price rises. In the period 2008-2011 the lower level of supply was not followed by an increase in home prices, but by a decrease. In the period 2008-2011 on average 120,000 dwellings were started up, compared to 210,000 in the period 2004-2007. The new housing starts were 360,000 lower in the more recent period than in the earlier period. The average home price reached its peak by the end of the second quarter 2007 at £241,838 and reached rock bottom at the end of the first quarter 2009 at £166,881, a drop of 31% in seven quarters. The latest data from the Halifax indicate that at the end of the fourth quarter 2012 average home prices for the U.K. had increased somewhat to £176,381.

Table 4 shows the level of new home mortgages approval⁵, whereby it should be understood that mortgages are taken out for a number of reasons: (1) swapping more expensive mortgages to lower interest rate mortgages; especially coming off from fixed rate mortgages and entering into variable rate mortgages and the other way around- interest rate arbitrage-; (2) trading up on the property ladder; (3) borrowing for home improvements; and (4) borrowing for general consumption purposes. The latter can be done during working life but also after retirement through equity release schemes.

Table 4: New Home Mortgage Approvals 2003-2012

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mortg. Appr. x 000	1,377	1,130	1,197	1,429	1,152	598	578	543	591	613

In December 2011, the U.K. Financial Services Authority (FSA) published a very detailed study⁶ of the U.K. mortgage markets and its various aspects. Some salient points are:

- In 2010 there were 26 million households in the U.K. who owned £7,045 billion together, or on average £270.960 per household. Dwellings accounted for £155.250 on average, before mortgage debt. Financial assets represented £165.460 per households, of which currency and deposits £46.690, shares £25.330 and insurance reserves, including pension reserves, £85.600.
- 68% of all households owned their own property in the U.K.; 32% were outright owners or 8.3 million households; 36% had a first charge mortgage or 9.36 million households and 32% were private or social tenants; again 8.3 million households.
- The 9.36 million owner-occupier households plus the 1.74 million owner-tenant households had a collective mortgage debt of £1,250 billion, which equates to some £112.600 per individual household. Per end 2010 net average equity for all mortgage holders was 27.5%. For all individual

⁴ <http://www.york.ac.uk/res/ukhr/ukhr1112/UKHRbriefing2012.pdf>

⁵ <http://www.housepricecrash.co.uk/graphs-mortgage-approvals.php>

⁶ <http://www.fsa.gov.uk/static/pubs/cp/mmr-datapack2011.pdf>

households together it was 64.2% per same date. All households had a total consumer debt of £198 billion or £7.615 per household on average.

- The FSA study indicates that the number of households owning property has not increased over the last few years due to some income related and to some demographic facts. The first one is that the first time buyers -mainly younger ones- have found it harder to raise the down payment to obtain a mortgage and the second one is that older households have mostly paid off their mortgage and if anything they move down the property ladder in order to release some cash.
- The study also analyses the lending structure which most likely has contributed to the rise in house prices. Such price rises exceeded the growth in income levels. The FSA attributes these developments to the deterioration in lending standards, which not only happened in the U.K., but also in the U.S., Ireland and Spain for instance. Such practices were originated by lenders -to some extent non-bank lenders- which took mortgage risks on individual households which could be classified as high risk borrowers. Sometimes mortgage brokers were capable to arrange deals for such borrowers and there were specialised subsidiaries of the banks and building societies dealing with these kinds of clients. Self certification of income levels was widely practiced. Interest only mortgages were encouraged, so much so that 43% of current mortgages are interest only mortgages. Sometimes, like in the case of Northern Rock, the loan to home value ratio exceeded 100%. For some Northern Rock mortgages it was raised to 125%. In 2010 38% of the mortgages were fixed rate mortgages and 62% were on variable rates.
- Another important point made in the FSA study is the reason that some individual households find it hard to keep up with their home mortgage payments. Adverse life events were mentioned by individual households as the reason that these households had difficulties in paying back outstanding debt. 32% explained that unemployment was the reason, 26% quoted relationship break-downs, 15% serious ill health/accidents, 11% care for children and 7% partner's health or accident.
- The FSA also pays attention to the fact that mortgages represent the least costly loan type for individual households and that many households have used (re)mortgaging as a way to pay for home improvements or for other types of expenditure.
- The doubtful debtor experience in the U.K. on home mortgages fluctuates around 2%. This is mainly due to forbearance by the U.K. lenders. They have converted many home loans which experienced repayment problems into interest only loans. In the U.S. due to the extensive use of securitisation of home mortgages, the level of home repossessions has been much greater relative to the U.K. Northern Rock, before it was nationalised, had made extensive use of such securitised funding structures.

Some observations need to be made regarding the FSA findings. The average price of homes in the U.K. from £ 137,273 in Q2 2002 to £179,170 in Q2 2012 reflects a nominal price development. If one corrects these prices on basis of U.K inflation levels over this period, than the conclusion is that over this decade nothing extraordinary has happened: house prices have just kept up with U.K. inflation levels and nothing more than that. Of course the period of 2002-2007 showed rapid value changes, but the correction has taken place over the period 2007-2012. A study based on Nationwide⁷ house prices from 1975 till Q3 2012⁷ asserts that current house prices are already well below the trend price by a margin of 12.9%.

If house prices are no longer over-valued could it be that income growth and net home equity growth have something to do with the poor state of the housing market, apart from the banks being more cautious?

⁷ <http://www.housepricecrash.co.uk/indices-nationwide-national-inflation.php>

1.2 Households' income developments and home equity stakes.

The Institute of Fiscal Studies has made a study⁸ about the living standards, poverty and inequality in the U.K. Some key findings were:

- There were sharp falls in average household incomes in the U.K. in fiscal year 2010-2011. Median income fell by 3.1% from £432 per week to £419 per week (both in 2010-2011 prices) and mean household income fell by 5.7%, from £542 to £511 per week. This represents the largest one year fall in median income since 1981 and the largest one-year fall in mean income since IFS's consistent data began in 1962. Using either measure, this leaves average living standards in the U.K. below the level in 2004-05, undoing five years of (slow) growth in a single year.
- The primary reason for the falls in average income in 2010-11 was the fall in earnings. Pre-tax earnings fell by 7.1% in real terms in 2010-11, mostly due to the falls in the real earnings of those employed as opposed to a fall in the numbers employed. From 2008-10 real average incomes still grew, based on a relatively stable real employment income and strong real-terms growth in income from state benefits and tax credits. In 2010-11 medium incomes before taxes and benefits was 7.8% lower than its 2007-08 peak.
- The IFS asserts that there are good reasons to be pessimistic about the prospects for the living standards beyond 2010-11. In 2011-12, employment fell slightly and average earnings fell in real terms. The Office for Budget Responsibility expects real year-on-year growth in average earnings to remain negative or negligible up to and including 2012-13. Net tax rises and cuts to benefits will put further downward pressure on household incomes. If IFS forecasts are realised than this trend in negative changes in median income would represent the worst period for changes in median income since at least the early 1960's, and probably much earlier.

A drop in real income is bad enough, but individual households can make it worse by changing their collective savings behaviour. They have done so by turning home equity into consumption in the period 2003-2007 and started adding equity out of reduced incomes over the period 2008-2012. During the latter period banks became more cautious in their mortgage lending behaviour as evidenced by the substantial drop in new home mortgages granted, but new homes were still being built, so the total value of all homes did go up due to the home additions. If -as an approximate figure- one multiplies the number of new housing starts with the average U.K. home price per end of the years 2008-2011 -the price according to the Halifax data-, than the increase in home values would be for 2008: £21.0 billion, for 2009 £16.6 billion, for 2010 £20.2 billion and for 2011 £21.0 billion. This leads to a total value increase in home values of £78.8 billion over the four years 2008-11. As the total outstanding level of loans was absolutely stagnant from 2008 to 2011 at £1.446 trillion according the net worth statement of U.K. households, this implies that collectively such property acquisitions were not financed by loans or price fluctuations but by equity injections, in other words collectively individual households saved £78.8 billion out of declining incomes. The average nominal price of homes over the period 2008-2011 fluctuated very little, so the real equity injection came out of cash incomes, rather than out of property price value increases.

Table 1 provides the net equity changes in home equity values of all U.K. individual households over the period 2003-2011. Such a net equity change is caused by four factors: the value increases due to new home building; the changes in home prices, the changes in borrowing levels, but also the changes in home equity withdrawal levels to boost current consumption. In the section above it was calculated that over the period 2008-2011 individual households collectively saved £78.8 billion out of declining incomes to support their home equity position. Over 2003-2007 the reverse process took place. Equity withdrawals took place out of rising house values. These equity withdrawals can be estimated by multiplying the dwellings value as per

⁸ <http://www.ifs.org.uk/publications/6196>

year end 2002 with the average home price increase over 2003, which was 16.13% which leads to dwellings value of £2,983 billion as per the end of 2003. The actual values according to the ONS Net worth statement were £2,869.0 billion. The difference is £114 billion. Correct the latter amount for the new home values created in 2003 by multiplying new housing starts with the average house price per year end 2003, which equals £27.5 billion, and the remainder is the equity withdrawal amount of £86.5 billion. One cannot assess how much of such withdrawal was used for additional consumption in 2003, but the value of the equity withdrawal is very relevant. In 2003 this equity withdrawal was 7.59% of 2003 GDP (nominal value of £1,139.4 billion). Similar calculations for 2004 lead to a £94.6 billion equity withdrawal. For 2005 the figure was £24.7 billion. For 2006 the figure was an equity injection of £16.8 billion. For 2007 the equity withdrawal was £ 125.2 billion, which represented 8.9% of 2007 GDP.

In the U.K., the owners' equity as a percentage of household real estate is not calculated in the Households' net worth by asset and year statistics, unlike in the U.S Balance Sheet of Households and Nonprofit Organizations⁹. However one can deduce from the available U.K. data that new housing starts from 2008 till 2011 have not led to an increased level of outstanding home loans. This means that individual households have repaid home mortgages and saved more to an extent of about £78.8 billion for the four year period 2008 to 2011. At the same time they have not entered into more home mortgage loans to reach the volume level of 210,000 new dwellings. This represents another loss in spending of £59.5 billion on new homes over the same period 2008-11. The actions of saving more from declining income levels and borrowing less for fewer new homes represents a triple whammy to the economy.

In the U.S the turn around from increasing to lower levels in outstanding mortgages went even further than in the U.K. In the U.S. individual households reduced their home mortgage level by about \$1 trillion in the period 2008 to Q3 2012. This represented about 10% of all outstanding home mortgages. The pressure of selling off "repossessed homes" was also much stronger than in the U.K. In the U.S. 5.35 million second hand homes were brought into the housing market since 2006. This should be compared to the housing need of about 1.6 million new homes per annum in the States. Americans changed their savings and borrowing patterns even more so than in the U.K., but the impact was somewhat smaller than in the U.K with a loss of 4.4% of GDP. In my paper: People's Power: The Power of Money¹⁰ which is available via IDEAS of the Fed in St.Louis, I have analysed the U.S. housing market and the U.S. losses made since 2005.

So far the analysis of the developments around the most important asset of individual households in Britain: homes. Suggestions for an improved flow of funds to individual households for such homes will be discussed in section 5.2.1

2 Banks in the United Kingdom

Banking activities have a relatively large share of GDP in the U.K. compared to other countries. In this paper the focus will be on the domestic activities of the banks and non-banks. The latter can be defined as lenders, which have their funding provided by the wholesale money and capital markets, rather than by their own depositors.

Many banks in the U.K., especially in the City of London are involved in cross-border activities, either as currency traders, bond and share traders and/or as risk traders in the derivatives markets. Of course losses are being made as well as gains. Such losses affect the (individual) shareholders or their representatives -pension funds and life insurance companies-, which may also be some U.K. ones. For the purpose of this paper the focus will not be on cross border activities, but purely on U.K. domestic ones.

The key element, which sets banks apart from ordinary companies, is that those banks and other non-bank lenders take risks on the future cash flows -incomes- of individual households, companies and the U.K. government. Banks enter into risk contracts, either formally in loan agreements or informally in buying up

⁹ <http://www.federalreserve.gov/releases/z1/current/z1r-5.pdf>

¹⁰ <http://ideas.repec.org/p/pramprapa/43735.html>

share, bond and derivative risks. The legal side might be well covered, notwithstanding that currently many successful claims against the banking sector have been made for misselling practices about payment protection insurance, interest rate swaps, and about fixing the Libor rates.

It is however the risks that banks run on the economic side of the equation. Banks -contrary to companies- cannot reduce their “costs” of production for the products they sell: risk products. They cannot reduce the reward to the depositors below the market level, otherwise they lose deposits. Banks’ input costs are fixed and their output income is depending on their own risk selection, but also on the state of an economy, in other words variable. Companies can adjust their input costs if sales do not materialise. Banks sell products which cannot be terminated during the contract period and such products may turn out to be loss making quite a long way into the future.

2.1. U.K. banks and Non-banks and the mortgage markets

In section 1 the developments of the mortgage markets have already been extensively discussed. In this section attention is being drawn to the well-known fact of maturity mismatches. The mortgage product requires a risk commitment from one bank, non-bank or another for nearly always 25 years or longer. Banks and building societies in the U.K., as elsewhere, do not have funds available which are committed for 25 years, not even their own equity resources as recent banking losses have shown. Individual households are generally unable to repay their mortgages any faster. At the moment only Manchester Building Society offers a 25 year fixed rate mortgage in the U.K.

What banks and building societies have done is to restrict fixed rates to 2, 5 and 10 year loans and the remainder is based on their short term costs of funds. These are Standard Variable Rate mortgages or some variations with lower discounted rates plus higher subsequent ones.

The risks on home mortgages triple through the SVR method:

1. The individual household is exposed to an interest rate risk, which in the current interest rate climate can only mean one thing: interest rates will move up and with it the difficulty of maintaining mortgage payments. As 43% of all U.K. mortgages are already interest only mortgages and 68% are mortgages on an SVR basis, this risk is quite substantial. If it is a risk to a household, then it is also a risk to the lender and to the wider society as well, through reduced disposable incomes.
2. Apart from the very sizeable risk of interest rate movements, there are also the maturity mismatch risks for all mortgage lenders, which may mean that in future some lenders will no longer be rescued by the taxpayers if they get into funding difficulties.
3. The process of mortgage securitisation leads to additional risks for all concerned. The experience of the U.S. has been that such securitisation has removed the funding risks from the originating lenders to third parties. In doing so the link between risk monitoring by the lender on the income developments of the borrower becomes less relevant for the lender as such risks have been sold on. Secondly a 25 year risk commitment becomes subject to daily market fluctuations. In case a portfolio of mortgages does no longer perform, the new funders will not want to provide the option of forbearance. They will want to liquidate the outstanding loans as soon as possible by selling off the underlying assets: the homes. What should be a 25 year income based’ risk, becomes an instant asset based liquidation process. This harms all home owners, including those who had no part in the securitisation process. Individual households were never asked, whether they approved of such risk transfer. Home owners, who owned their homes outright, were also never asked, notwithstanding that the home sales program affected their net worth substantially. In the U.K. in 2008 a Deutsche Bank study¹¹ assessed that about £155 billion was raised in U.K. mortgage Master Trust Structures. This represented a funding level of about 12.5% of all mortgage lending in 2008.

¹¹ http://www.globalsecuritisation.com/08_GBP/GBP_GSSF08_161_166_DB_UK_Mort.pdf

2.2 U.K. banks and the company sector

The risks banks run on lending to companies can best be described as a company specific risk and a collective economic risk of no or slow growth. Banks, in their lending to companies, are supposed to take both risks into account when granting banking facilities. Table 5 provides an overview of company bankruptcies since 2002¹².

Table 5: Company bankruptcies in England and Wales from 2002-2012 (source: Department of Business, Innovation and Skills)

Year	Total	Compulsory Liquidations	Creditors Voluntary Liquidations
2002	16,307	6,231	10,076
2003	14,184	5,234	8,960
2004	12,192	4,584	7,608
2005	12,893	5,233	7,660
2006	13,137	5,418	7,719
2007	12,507	5,165	7,342
2008	15,635	5,494	10,041
2009	19,077	5,643	13,434
2010	16,045	4,792	11,253
2011	16,886	5,003	11,883
2012	16,138	4,243	11,895

A conclusion which can be drawn out of above figures is that these liquidation numbers closely follow the ups and downs of economic growth figures in real terms. This is not at all surprising as businesses depend on turnover to create cash flows. Liquidations are a lagging indicator of economic growth; they follow the growth pattern rather than leading it. What above table also makes clear is how bank risks are closely correlated with economic growth patterns. When companies go bankrupt, it usually also means substantial write-offs on loans to these companies: an economic loss. In the years of higher economic growth a lower number of companies go down, and in slow or no growth years a higher number go down. For banks it is their business to lend to companies; in many cases the bank losses incurred are mainly due to the incorrect assessment of demand levels in an economy. Sometimes it is due to venture capital companies increasing the gearing ratio of companies.

¹² <http://www.insolvencydirect.bis.gov.uk/otherinformation/statistics/201211/table1.pdf>

3 The U.K. economy, government and the Bank of England

3.1 The U.K. government as a borrower

The U.K. government, just like many other governments in the world, has been unable to match its tax revenues with its expenditure levels. It therefore has resorted to borrowing to close the gap between its expenditures and its taxes raised.

Table 6 shows the outstanding net government debt level from fiscal year 2005 to 2013.

Table 6: U.K. government net debt level outstanding end of fiscal year 2005-2013

Fiscal Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Outstanding Debt x£ billion	424	463	500	525	617	760	905	1.039 e	1.159 e

This net debt does not take into account the amounts pledged for rescuing Royal Bank of Scotland and Lloyds Bank after its takeover of Halifax/Bank of Scotland.

When individual households lose £432 billion in net home equity levels in a single year -2008-; when company bankruptcies increase by 25% in the same year; when banks need to be rescued also in the same year and when unemployment levels go up, it should come as no surprise that tax revenues could not keep up with government expenditure levels.

What is important is that the period of impact of such losses should be kept to a minimum, in order not to burden future generations with the creation of continuing government deficits. What government debt funding does is similar to an individual household taking out a consumer loan: it increases the amount available in the current period to keep spending on goods and services -the credit extension- only to be faced by a reduction in disposable income in future years when debt has to be repaid -the credit contraction period-. The increased level of net debt outstanding, doubling in the period 2008-2012, makes an economic growth strategy all the more urgent. Such growth should come from the individual households and from the private sector rather than from increasing government borrowing any further. After all, the people who are going to be asked to pay back government debt are the individual households.

3.2 The Bank of England

There are two interest rates which are key to the U.K.'s economy: the first one is the base rate, the short term rate and the second one is the implied yield on the ten year gilts. What is important is how they compare to the annual inflation rate. Table 7 shows these data for the period 2002-2012.

Table 7: Annual mean yield on 10 year gilts¹³; base rates and RPI inflation rates 2002-2012

Year/	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10yr Gilts Yield%	4.98	4.62	4.96	4.53	4.60	5.15	4.65	3.88	3.75	3.25	1.98
Base Rate%	4.0	3.7	4.4	4.7	4.6	5.5	4.7	0.6	0.5	0.5	0.5
RPI %	1.7	2.9	3.0	2.8	3.2	4.3	4.0	-0.5	4.6	5.2	3.1

A well known fact is that the Bank of England decided to launch its “Quantitative Easing” Programme in 2009. Since then it has bought £375 billion in mainly gilts to increase the supply of funds to the financial markets in order to stimulate demand. What table 7 shows is that from 2009 onwards inflation levels have outstripped the 10 year gilt yield by a sizeable margin of 85 basis points in 2010, 1.95% in 2011 and 1.12% in 2012. This is totally contrary to the period 2002-2008 when a positive margin over inflation was maintained for the U.K. 10 year gilts.

Three points need to be raised about this QE policy decision:

1. The net equity position of individual households in their homes dropped by £432 billion in 2008 and in total by £841 billion in the same year. How could such a drop in equity, support an increase in borrowing levels? Individual households did not think so and they increased their equity stake in their homes by £78.8 billion over the period 2008-2011. Individual households also saw their incomes reduced by higher inflation levels than their average wage and salary increases.
2. Companies -especially the larger ones- did not want to borrow more either. They reacted to the lower spending levels of individual households. Some larger companies also accumulated substantial cash reserves. Due to the recession an increased number of companies went bankrupt, not because of lack of credit, but because of lack in demand.
3. Banks benefitted from the lowered yields on their existing gilt portfolios, making capital gains. However this effect was outdone by bank bail-outs and individual and company insolvency levels. The latter reduced their equity base, so that that they were also in no position to lend. Also the misselling of ppi and interest rate swaps and regulatory fines took their toll on bank capital ratios.

The individual households, the companies and the banks could not accommodate increased lending and borrowing levels, so why was the concept of QE applied? The real effect was on government borrowing costs. However this has two aspects. Firstly the taxpayers -the individual households- are responsible for paying back government debt in future. Spending to-day and charging taxpayers’ to-morrow has the same effect as a consumer bank loan. It increases the purchasing power in the current period but reduces it in future. If, as currently, the debt grows rapidly, the future will look less bright for real disposable income growth. The second aspect is the income level over debt. Manipulating the income level through QE, lowers the current income for gilt holders below inflation levels: the savers lose. What is the benefit of such action? Was it to punish savers and encourage borrowers?

The real consideration should have been that current incomes are strongly under pressures for all non-government households and that a positive reward for savers would have added some income to the non-

¹³ <http://www.tradingeconomics.com/united-kingdom/government-bond-yield>

government sector to give them more leeway to spend more to-day rather than see the debt accumulate at a slightly slower pace.

3.3 Employment and Unemployment in the U.K.

In table 8 the time series about the number of people employed, the number of unemployed, the labour force participation rate and the level of unemployment have been included for the period 2002-2012¹⁴. The labour force participation rate is defined as the percentage of the total labour force in the particular age group (16-64) who are either employed or unemployed or not actively seeking employment.

Table 8: Employment, Unemployment in numbers and as a percentage of the labour force 2002-2012 (Source: Office of National Statistics)

Year	Employment X 1,000	% of Labour force	Unemployment X 1,000	% of Labour force
2002	27.920	72.7	1.529	5.2
2003	28.182	72.8	1.490	5.0
2004	28.480	72.9	1.426	4.8
2005	28.770	72.7	1.467	4.9
2006	29.025	72.8	1.674	5.4
2007	29.228	72.2	1.654	5.3
2008	29.440	72.6	1.783	5.7
2009	28.960	70.9	2.394	7.7
2010	29.035	70.5	2.479	7.8
2011	29.176	70.5	2.560	8.1
2012	29.681	71.4	2.490	7.7

The gains and losses on the potential income levels can be deduced from the number of people employed and from the percentage of the labour force in work. If 72.8% is taken as the bench mark of what the U.K. economy is capable of delivering, then -as an example- in 2009 this 72.8% would have taken the employment level to 29,736 million. As the actual level was 28,960 million there was a loss in income for 776 000 people. If one takes the average nominal income in 2009 of 23,140¹⁵ (Source: Office of National Statistics) and multiplies this with the 776 000 than the loss for 2009 was £17.95 billion which was 1.28% of GDP in 2009. This income loss is multiplied through the economy by lower demand levels, the sharply increased level of company insolvencies in 2009 and the fact that the U.K. government had to pay out unemployment benefits for an additional 600 000 persons.. The loss is also a multi year loss as up to now the labour force participation ratio has not returned to 72.8%.

¹⁴ http://www.ons.gov.uk/ons/dcp171766_292921.pdf

¹⁵ <http://www.ons.gov.uk/ons/datasets-and-tables/index.html?pageSize=50&sortBy=none&sortDirection=none&newquery=average+weekly+earnings+2009&content-type=Reference+table&content-type=Dataset>

3.4 Balance of Payments: Current Account Balance

The U.K. has for many years run a deficit on its current account of its balance of payments. The trade balance has shown a deficit for many years ever since 1997, the last year that a surplus was recorded. The services sector has shown a surplus for many years, but together there has been a current account deficit for at least the last decade. IMF data¹⁶ show the current account deficit for the last nine years.

Table 9: Current Account Deficit in percentage and actual £ billion, 2004-2012

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Deficit % GDP	-2.1%	-2.6%	-3.2%	-2.5%	-1.4%	-1.5%	-3.3%	-1.9%	-1.7%
GDP x £ bln	1,202.4	1,254.3	1,328.6	1,405.8	1,433.9	1,393.9	1,463.7	1,507.6	1,548.3
Current Account Deficit x £ bln	25.3	32.6	42.5	35.1	20.1	13.9	48.3	28.6	26.3

4. Summary of Losses

4.1 Net Worth Losses for Individual Households in the U.K.

In 2008 the net worth of individual households dropped by £841.2 billion. This drop was evenly split between total non-financial assets and financial assets with a small change in financial liabilities. However the loss was bigger in that it was a turn around from about £ 450 billion gain on average in the previous years to a loss of £ 840 billion: a swing of £1.29 trillion or nearly 90% of 2008 GDP. It is this loss and the reasons for this loss as well as the slow recovery in the subsequent years which should be at the heart of the economic analysis. How could it happen and how can such losses be avoided?

4.2 Job Losses.

Over the last four years, jobs in the U.K economy did not grow as fast as to employ 72.8% of the labour force. This led to income losses in these years. In the above, in section 3.3, the specific loss for 2009 was calculated as £17.95 billion. For 2010 and subsequent years the losses continued. If the active labour force remains underutilised, such income losses accumulate as do the effects. One effect is that the government has to pay out larger sums of unemployment benefits and thereby increases its budget deficit. Loans by the U.K. government have to be paid back in future years, so that tax rates will ultimately have to go up to pay back these benefits. This government expenditure represents a second type of loss to individual households. If not enough jobs are created also the demand levels in the U.K. economy will be less and companies suffer underutilisation losses: A third type of loss.

4.3 Wages and salaries increases below inflation levels

¹⁶ <http://www.imf.org/external/pubs/ft/weo/2012/01/pdf/statapp.pdf>

For the average wage and salary earner the increases in their employment incomes have not kept pace with inflation levels (RPI as this include mortgage interest rates) since early 2008 and up to currently¹⁷. Such slow income growth prevents individual households from keeping their savings percentage at a steady level. Individual households become relatively poorer. This again represents a loss to them and does not create a good base to expand borrowings or increase consumption levels. For instance RPI in 2010 was 4.6%; the mean gross income was £26,564 in 2010 compared to £26,450 in 2009. The latter increase was 0.43%. If the increase had been 4.6% than the mean gross income would have been £27,667, a loss per employed person of £1,103 or for all 29 350 000 employed persons a loss of £ 32.1 billion in income. This loss represented 2.2% of 2010 GDP. This loss has only been calculated on the basis that wages increases are kept in line with RPI inflation level changes. It is noteworthy that before 2008, wages adjustments exceeded RPI levels.

4.4 Current Account Losses

Current account losses are reflected in GDP levels. However the U.K. position does not compare well with strongly export oriented countries like Germany, Holland and a few other countries which have maintained their current account surpluses even in the current difficult years. For the U.K., this represents on average a loss of some £25 to £35 billion per annum.

4.5 Company losses

Companies experience an output gap if they produce less than they are capable of producing. The Office for Budget Responsibility has calculated¹⁸ that the U.K. output gap for 2009 was -4% and for the second and third quarter 2010 respectively -3.5% and -3.25%. Such output gaps make it harder for companies to make profits. Companies will also experience a higher level of company bankruptcies. Over the period 2002-2007 the average level was 13 537 company closures per annum. In 2009 the level reached 19 077 or 41% over the 2002-2007 period average. Even in 2012, the company closures number of 16 138 was still 19.2% over the average 2002-2007 level. Company closures reduce bank profits, reduce company tax levels and of course limit the number of jobs available. Underutilisation of capacity and company closures also lead to share value losses. This means: losses all around.

4.6 Bank losses

One has only to follow bank share prices since 2008 to see the extent of the losses made by the banks. However, as stated before, banks take risks on expected income flows of their customer base. If due to economic changes such income growth is not forthcoming, banks will experience a much higher level of losses. Risk acceptance on their clients is a bank job; economic risk' avoidance is a bank plus the collective society job.

4.7 Pension fund losses

Pension funds reflect the true value development in financial assets. They reflect savings for use in later periods. For instance in 2008 U.K. pension funds and life insurance companies lost 14.2% of their values. The actual loss on financial investments was larger as new pension fund contributions and life insurance premiums were coming in. What seems often forgotten is that these savings belong to the individual households. They do not belong to the government, neither to the companies who manage them. In the statistics on Households Total Net Worth Data, they are properly identified as individual households' assets.

5. A Draft Economic Master Plan for the U.K.

¹⁷<http://www.guardian.co.uk/news/datablog/2009/mar/09/inflation-economics>

¹⁸ <http://budgetresponsibility.independent.gov.uk/wordpress/docs/briefing%20paper%20No2%20FINAL.pdf>

5.1 Introduction

A draft master plan needs to be based on two concepts:

- 1 Reduce income risks to all households and
- 2 Use existing savings more efficiently.

All in all the proposals set out below fall in either category. It is not claimed here that the proposals are exhaustive and that there may not be other ways to help the economy grow. What the proposals hope to do is to start up a serious discussion on not just on what the U.K. government can do, or the Bank of England, or the banks, or the company sector, or the pension funds or the individual households for that matter, but what all these parties can do collectively.

5.2 Reduce income risks to individual households

5.2.1 Income risks linked to home mortgages

The income risks related to home mortgages are reflected in the facts that:

- 43% of all mortgages are interest rate only mortgages and 68% are standard variable rate mortgages. Also the fixed rate mortgages are generally of a short duration and not in line with the capacity of individual households to repay such mortgages in any period less than 25 years.
- Home ownership levels are dropping and are currently at 65.3% of households against 70.9% in 2003. This clearly reflects the situation that many first time buyers are unable to get onto the property ladder. Secondly the growth in average wages has been below inflation levels from 2008 onwards and unemployment rates have gone up since 2008.
- Current interest rates are at an all time low, which means that the chances of interest rate increases are more than likely in the near future.

U.K. commercial banks and building societies cannot offer 30 year fixed rate mortgages. They also cannot accept high loan to value ratios of 90 or 95% of home values, which are especially important for first time buyers. As the experience of payment protection insurance has shown, banks individually cannot easily insure against adverse life events, such as unemployment, relationship break downs and serious illness or accidents. However collectively such life events impair the servicing of the mortgage debt of some individual households, either temporarily or permanently; some form of insurance would reduce the risks for the banks in their lending decisions.

On basis of these considerations my proposal is to set up a national mortgage bank and a national mortgage insurance company.

Proposal 1: To set up a National Mortgage Bank (NMB) and a National Mortgage Insurance Company (NMI)

In the United States 30 year mortgages are the standard rather than the exception. Of all new mortgages granted in 2012 95% of these mortgages have an involvement of either Fannie Mae or Freddy Mac. Their January 2013 interest offer on a 30 year fixed rate mortgage was 3.41% per annum. This percentage includes the risk premium for good clients.

The proposal for the U.K. is to set up a State sponsored enterprise (NMB) along somewhat similar lines as Fannie Mae or Freddy Mac.

Its aim is to help individual households, especially the low and medium income households, to buy their own homes or move from smaller to larger accommodations when households' needs change. Its aim is also to protect individual households -and as a consequence the economy- against interest rate rises, which were not foreseen at the time of taking out the mortgage.

Variant 1: Shared Risks between NMB and the banks and building societies

NMB would be providing the long term funds for a home acquisition to an individual household in an indirect manner, via the commercial banks and building societies. These latter organisations will add their risk premium to the interest rate set by the NMB according to the payment risk that different households represent. They will also set up a time table with their client to see how the long term loan will be repaid. The banks and building societies will provide a guarantee to the NMB for the servicing of the mortgage loans taken out by their customers through NMB funding. Banks and building societies would also do well to require their mortgage customers to have their salary account with the lending bank/society, so that they can follow income developments of their client. If a client wishes to move the mortgage to a different bank, the salary account should preferably move with it. Credit monitoring should remain the role of the banks/societies.

Variant 2 All funding and credit risks taken by NMB, but mortgage credit proposals and payment flows through banks and building societies

Variant 2 is the way both Fannie Mae and Freddy Mac operate. However in 2008 both entities had to be rescued by the U.S government due to the credit risk performance of individual households. In the period to 2008 these two entities had -just like some American banks- lowered their risk rating standards and had gotten involved in sub-prime mortgages. In the U.K. -contrary to the U.S experience-, commercial banks have helped their customers, whenever possible, through changing the terms of the mortgage from repayment to interest only mortgages. Due to this forbearance, the U.K level of repossessed homes has stayed relatively stable. In the U.S the securitisation of mortgage loans was widely practised and such indirect funders had no other option than to move from what should have stayed as an income related loan facility to the asset liquidation -the sales of the underlying asset: the homes-. Forbearance is helpful at low interest rates, but problems will arise when interest rates start to rise. Also the short term incentive as provided in the Funding for Lending programme stores up a similar problem for the future.

My choice would be for Variant 1. This leaves banks and building societies to take income risks on their clients, but no interest rate risks. Individual households will have the benefit of a fixed mortgage rate, rather than the vagaries of fluctuating rates.

The technicalities of the funding process for the NMB could be similar to the way both Fannie Mae and Freddy Mac raise funds out of the money and capital markets. Of course banks and building societies as well as pension funds and individual investors could participate in these fund raising exercises.

Both Fannie Mae and Freddy Mac have private shareholders. In my view NMB should be a collective enterprise and therefore the ownership should be all individual households together, represented by the Government. An initial equity capital injection could come from the Government or the Bank of England, but in case the NMB turns in a profit this should not be distributed but added to the reserves of the Mortgage Bank. Its liabilities would not constitute a government debt as the loans would not have been used for government expenditure.

The National Mortgage Insurance Company

Adverse life events will have an effect on the payment performance of some customers. The aim of the NMI is to cover these effects to the extent that they are not self inflicted. Such protection is especially essential for the lower and median income classes. Nearly all of them have to rely fully on their own employment income and do not possess large sums of available cash other than the amounts accumulated in their pension pots.

The NMI can also help first time buyers by insuring the first 10 or 15% of the mortgage loan after say a 5% or 10% down payment was made. The remainder 80% would remain the risk of the lending bank. Once individual households have reached the 20% equity, the policy would stop to be effective. The NMI can act as a catalyst as well as a brake in the number of home mortgages granted, by temporarily changing the risks it underwrites when mortgage levels grow too slowly or too fast.

The equity pattern for the NMI can follow the pattern of the NMB.

5.2.2 Income risks related to companies

One of the most substantial risks for companies is to create a production capacity larger than the demand levels. This applies for each individual company, but also for all companies combined in the U.K. An export drive may help to relieve some of the pressure, but most of the total demand in nearly all countries comes from domestic sources: this also applies to the U.K.

If an output gap occurs, the reaction by companies is either to lay off staff, keep them on but increase remuneration less than inflation levels -often through their own company price levels- or in the worst case go out of business. Another reaction is to spend less on new plant and equipment. Shareholders will feel the pinch as profits will be adversely affected. Jobs, incomes, profits and non-financial assets (investments in physical goods) will be affected. The multiplier effect will spread throughout the economy and affect the banking sector and the government's income as well.

As indicated in the introduction an output gap is created by the company sector, but a lack in demand can also be caused by an income gap. In this situation individual households cannot spend their way out of an economic crisis as they do not earn enough, especially compared to inflation levels. My conclusion out of current data is that the current U.K economic slow growth period is based on the income gap scenario. An efficient way to adjust the U.K.'s economy is to help individual households to increase spending, not by borrowing more, but by giving them access -on a temporary basis- to some of their savings.

In 5.2.1 a possible solution to maintaining a sustainable level of home building has been suggested. This will help, but cannot be the only solution.

In the introduction to Section 5, two concepts were introduced simultaneously: (i) reduce the risks to all households and (ii) use existing savings more efficiently. In proposal 2 these concepts have been used together for helping to solve the macro-economic risk of an output gap for all companies combined.

To start with the savings level: U.K. pension funds' assets reached £1.7 trillion by the end of 2012 according to Pensions World¹⁹. This was 109.8% of the total U.K.'s GDP in 2012. These pension funds' assets grew by 5% over 2012. This is in sharp contrast as to what happened in the real economy. The IMF's forecast for U.K.'s economic growth in 2012 was for -0.4% real output growth.

What these data show for the U.K. is that the amount of "locked up" savings of individual households can constitute a potential hazard to economic growth. According to the OECD Pensions Outlook 2012²⁰ U.K pension funds allocated their resources as follows in 2010: Cash and deposits 2.8%, government bills and bonds 11%, private sector bonds 9.3%, loans 1.1%, shares 22%, land and buildings 2.3%, mutual funds 28.7% and unallocated and other resources 22.8%. The aim of pension funds is to accumulate enough

¹⁹ <http://www.pensionsworld.co.uk/pw/article/uk-pension-fund-assets-at-%C2%A317-trillion-hit-record-high-12323301>

²⁰ <http://www.oecd.org/finance/privatepensions/oecd-pensions-outlook-2012.htm>

resources during the working life of an individual, to allow a decent pension income over the retirement life of the individual, which in the U.K. is an average pension period of 18 years for men and 20.6 years for women from the age of 65.

What the allocation of pension funds' resources show is that nearly all of the investments are in financial assets invested in the government and in the private sector companies in one way or another. What one can also deduce is that only a very small proportion of the assets is being paid out to retired people in a current year, so as to preserve enough reserves to pay for the remainder years. The conclusion is that the income flow out of the total pension assets used for current consumption represents only a very small percentage of the total accumulated savings. If a pension fund has an age distribution build up equally spread over the years of contribution and over the retirement years than the contributors will always pay in more than the benefits paid out. If pension funds subsequently have a positive return over their funds under management, than these pension fund save far more than they spend on current consumption. On the whole in the U.K and in most countries pension funds are net savings institutions. In weak economic times they constitute a drain on spending. Under current legislation, pension funds cannot accelerate or decelerate consumer demand.

This leads to my second proposal: Economic Easing.

Proposal 2 Economic Easing

Economic easing is the action by pension funds to pay out a temporary cash dividend to its pension savers and pensioners at times of underutilisation of the labour force and underutilisation of the production capacity of the company sector. It would particularly be helpful as a tool to be used at times when the average wages growth does not keep up with inflation.

There are four aspects to economic easing:

- The first aspect is that it is a temporary measure to shore up demand levels until the time that full employment, full capacity utilisation and disposable income levels able to follow inflation levels are reached. It can be started up and stopped much quicker than government infrastructure projects.
- The second aspect is that using savings to enhance consumption levels improve not only company profits but also share prices. It also improves the level and the quality of jobs available. Economic easing will increase the potential contributors to pension funds and last but not least it also improves government deficits, allowing pension funds to allocate more of their resources to the company sector.
- The third aspect is that allowing pension funds to engage in economic easing is to help them enhance their own performance over the financial assets. There is however the risk that it might not work quickly, so that a protracted injection is needed. For this the government, on behalf of all individual households, could step in and guarantee that the reward for participating in economic easing should work out to no less than the index linked gilts.
- The fourth aspect is that economic easing uses funds which are owned by individual households. They have already saved such funds in past periods. This represents a fundamental difference with a government Keynesian injection of funds. The latter is based on borrowed funds from, among others, the pension funds. Individual households will ultimately be required to pay back such funds, which is not the case in economic easing.

What would be an appropriate dividend? My estimate is that about 1.5% to 2% of the accumulated pension savings would be enough. This would be a demand injection of 1.6% to 2.2% of GDP if the whole injection is turned into consumer demand, which the government should request the individual households to do. Such injection will unleash company investments in expanding production facilities, especially if companies could

be certain that that such cash injections -from individual households' own savings- will continue till the goal of full employment etc. has been achieved.

The distribution over the pension savers and beneficiaries is made difficult by the precise number of pension savers and retirees drawing a private pension. For U.K. the number of participants in DC and DB schemes combined with the number of beneficiaries will probably add up to 10 million individuals. If an equal amount would be distributed to all these individuals it would amount to £2,500 till £3,400 per person. The effectiveness of such cash injection would be enhanced if the tax over this cash injection would be waived and if the payments would be spread out over four quarterly injections. Indirectly the government would benefit greatly from this action. The equal amount principle helps the younger members more, but they run the longest investment risks.

Pension funds will see their client base rapidly expanded if there are chances of a pension dividend when times are tough. This will reduce the pressure on the U.K. government to provide for a basic state pension.

5.2.3 Income risks related to banks

As indicated in the above, banks are different from companies in that in an economic down turn, banks only have the option to reduce new lending, but they cannot get out of their current portfolios of risks. They also cannot reduce their main input costs -their costs of funds-. Their individual choice was the client base with which they do business. Banks have little power over the state of an economy.

Northern Rock did not get into trouble because it had long term mortgages outstanding, notwithstanding that it was one of the most aggressive mortgage lenders. It got into trouble because it had securitised a very sizeable share of its mortgage portfolio and placed these via Special Purpose Vehicles with outside investors. When the latter -as a consequence of the U.S. subprime debacle- did not want to renew their funding commitments, Northern Rock ran out of funds. It only funded about 25% of its mortgage portfolio from its own depositors. HBOS had to be rescued not because it ran out of funds, but Bank of Scotland's corporate arm was known in the market as the most aggressive lender. It fell foul of non-performing loans. RBS would most likely have survived without government support, if it had financed its acquisition with the issuance of shares -as Barclays had offered-. It did not and it paid cash at the top of the market for ABN AMRO Bank. It simultaneously acted as the lead bank for two other banks, as it could not afford the take over on its own.

Securitisation -in effect funding structure- errors, lending errors and managerial errors were responsible for the British bank crashes. None of these errors had anything to do with casino banking, unless the RBS action should be classified as such.

Would the U.K. bank crashes have been avoided if the investment banking arms had been electrified and ring fenced? Not in the case of Northern Rock; its funding structure was to blame. Not in the case of HBOS, its aggressive lending stance was to blame, which was applied at the wrong time. Not in the case of RBS as it needed the Financial Services Authority's approval for its take over action.

This is not to say that the Lehman Brothers, AIG and other financial organisations were not responsible for the ultimate crash, which was the crash in the mortgage backed securities. One should take into account that years before the collapse, the collective of U.S. lending banks had dramatically lowered their risk taking standards on mortgages. However, the lending banks were happy in doing so as the investment banks, with the help of the rating agencies, were able to offload these risks to the investing public around the world. It is also not to say that "risk trading" for own account and for servicing the financial markets has now been made so complex that few bank managers understand the risks they are exposed too.

Bank risks start with individual households and companies. Lowering such risks through setting up a National Mortgage Bank and Insurance Company or through applying Economic Easing can potentially take away major risk factors to the banking sector. If such risks are mitigated, the opportunity to speculate and make profits out of fluctuations will also diminish.

There are also other ways to make banks behave in a responsible manner. This is our proposal 3.

Proposal 3 A Revised Bank Risk Management Structure

When bank regulators consider changing the operating rules for banks, they focus strongly but not exclusively on bank solvency. Solvency reflects the assets and liabilities of a bank, its balance sheet. The start of this section stated already that banks are different from companies. This is most clearly shown in the flexibility companies have when sales are below or are expected to be below the planned level. They can cut expenses on staff, raw materials and intermediate goods and sometimes reduce borrowings and or even save some cash.

Lending banks' main expense is the interest expense, as they are highly geared operations. Their main income is interest income over loans. This interest income is influenced by doubtful debtors' not fully returning interest and principal. This is similar to a company selling an item at a price, but only receiving part of the price. For banks such reduced cash flow might happen years after the loan was made. The conclusion is that banks are income -cash flow- based companies rather asset based ones. They do not know from the outset what "price" they will receive over the risks taken.

At a British Bankers' Conference held in October last year the Deputy Governor of the Bank of England was quoted as stating that "doubtful debtor accounting are holding banks back"²¹.

My proposal is in line with this thinking. The proposal is:

Change bank risk accounting standards

Allow banks to make provisions for doubtful debtors from the moment they enter into loan contracts, be it a mortgage, a consumer loan, a corporate loan, or corporate or government bond. Banks know or should know from experience what the payment performance is among their chosen client base. They should anticipate the risks; which means the potential provisions to be made. Allow banks to foresee the write-offs and the period over which such provisions should be made, which in any case should be shorter than the lending period. Once a bank has decided on the potential write-offs, they should be fixed in the accounting ledger. Only the amounts entered at the time of entering into the loan agreement or bond purchase should be recognised for tax deductibility. If actual write offs would turn out to be more, such extra loss should come out of shareholders funds and not from the taxpayers. If actual write offs turn out to be less than anticipated, this constitutes a bank profit and corporate tax rates would be levied.

Banks do not need equity capital related to categories of risks that banking supervisors decide for them. Leave it to the bank involved; leave it to the managements whose job it is to assess risks. They should know their clients. However banks need buffer funds and such buffer funds could be perpetual notes rather than equity capital. The difference is that the perpetual note holder gets a fixed amount of interest per annum. If banks pay interest over such notes, it means that all classes of money depositors get paid for providing the banks with different classes of risk money. In case banks have not set aside enough risk provision money out of their income, the losses are reflected in a value write down of the perpetual notes, which are listed on the stock markets. If banks have over provided, such income after tax may occasionally be distributed over the perpetual notes holders.

In this set up all money providers to banks are regularly paid for their risks in the banking business. Sound risk judgments lead to adequate up-front provisions and the profits made are not distorted by insufficient provisioning. Conservative and well managed banks will gain at the expense of aggressive risk seeking banks. Too low a provisioning level will punish perpetual note holders. Bankers' bonuses should be paid out on a deferral basis and after perpetual note holders have been paid. Good bank managers should be rewarded and poor managements will have to forego their bonuses before perpetual not holders are affected. In any

²¹ <http://www.guardian.co.uk/business/blog/2012/oct/17/accounting-rules-banking-valuations>

case the markets can follow which banks are the healthy ones. Under current accounting rules, they have not got a clue.

In the categories of risk taking, all types of investment banking activities should also be included. For instance own account trading requires at least a fifty percent provisioning; some derivatives trading also a higher percentage than individual household loans or corporate loans. Mergers and acquisitions require a better level of provisioning; so do stock market introductions. Again the more conservative banks will win it from the aggressive banks as too low provisioning is punished by not being tax deductible. In the latter case, this means that more perpetual notes will be needed to keep up the banking buffer. The markets will know which bank has acted most prudently with customers' monies.

In the manner set out above, conservative banks will put their clients' interest first and bankers' rewards second. Aggressive banks will need to convince the markets that they need increasing amounts of perpetual notes in order to survive. The rewards and brakes are built in into the revised bank risk management structure.

5.2.4 Income risks related to the Bank of England

Individual households have no say over the setting of interest rates for longer term government bonds. However if one would ask them which type of government bond they would like the most, their most likely reply would be to have inflation related indexed linked government bonds. These are the same bonds which in 2011 constituted 94.8% of the pension reserves of the pension fund of the Bank of England.²² In the U.K such bonds have done outstandingly well from an income point of view and so has the pension fund of the Bank of England. For pension funds, such rewards are essential in ensuring that pension reserves are in line with index linked pay-outs.

However what individual households -and their representative financial organisations as pension funds, mutual funds and banks- are currently faced with is that inflation levels outstrip 10 year and shorter government bond yield levels. This is the case for the U.K., the U.S., and for Germany and other Northern European countries. Japan has a slightly positive yield margin over inflation. U.K. gilts represent an income flow and a financial asset for the holders of such bonds.

By buying up gilts through quantitative easing exercises, the Bank of England did not reduce the risks to individual households but they did change the price and the reward over the bonds. The Bank of England has bought up £375 billion out of a total government debt level of slightly over £1 trillion. By the Bank's own admission it has increased inflation levels by about 1%. The current 10 year gilt yield is 1.84% and the current inflation level is 2.70%, a negative 86 basis points carry. Index linked gilts represent about 20% of the total gilt market.

The bond buying practice increases the so-called market value of existing fixed rate bonds. This leads to profit levels which are unreal, as they are the effect of the central bank's actions. An article in the U.K Daily Telegraph of 31st December 2012 assessed that "the real winners of the QE programmes have been the hedge fund managers and that those relying on interest income have suffered; especially the savers and pensioners."

Rather than imposing long term interest rates which do not keep pace with inflation levels, I propose to turn QE into QS, which stands for Quantitative Strengthening.

Proposal 4 Quantitative Strengthening

My proposal is to change the composition of the U.K. government debt gradually from 20% in index linked gilts to 80% in index linked debt. In this manner pension funds, but also banks and all other investors have a chance, to earn a return above inflation levels, just like the Bank of England's own pension fund has practised over the last few years. The U.K. Debt Management Office has already announced that it had

²² <http://www.bankofengland.co.uk/about/Documents/humanresources/pensionupdate.pdf>

requests for a higher level of index linked gilts. QS can also be made effective by swapping the £375 billion the Bank of England holds in fixed rate gilts into index linked gilts. The latter gilts can gradually be released back into the markets. Of course, all government debt needs to be repaid in due course by all individual households, but using QS will help to create an asset class of outstanding credit quality which is inflation linked. This method will also reinforce the importance for the Bank of England to follow monetary policies, which contain inflation at 2% or below.

5.2.5 The U.K. Government

The U.K. government in its tax revenues is depending on the private sector to return to growth. It is already taking steps to curb its expenditure levels. What is often suggested is to invest more in infrastructure projects, like new airports or railways. Such projects are either necessary or not, but if so, they take a very long time to implement and such projects are therefore not suitable for short term economic remedies. They cannot be stopped when the economy is at full swing. They should be undertaken on their own merits as and when the long term economic justification is adequate. If companies can get their short term projections wrong, a government can only hope that it can get its long term projections right. There are no certainties. What is certain is that political factors play a much greater role in infrastructure projects than they do in private sector businesses. Spending other peoples' money is somewhat easier than one's own.

Apart from the government taking the lead and coordinating in getting all parties at the table to agree to an Economic Growth Pact, the government's budget situation seems unlikely to allow itself any additional Keynesian injection, further than it already had to execute.

5.2.6 The U.K. pension funds.

With £1.7 trillion in assets, collectively U.K. pension funds manage more savings than the U.K. banking sector. The latter had £1.25 trillion in currency and deposits as per the end of 2011. The four proposals as mentioned above: The National Mortgage Bank and the National Mortgage Insurance Company; Economic Easing; Changes in Bank Accounting Standards and Quantitative Strengthening will all help to get the U.K. economy to grow. As a result the investment performance of pension funds should see the positive effects from such actions and the confidence of saving for a private pension should get a substantial boost.

One element needs mentioning in this regard. If, just like the pension fund of the Bank of England, all investments would be placed in index linked gilts, longevity factors would still require that a discount rate is applied to all future pension commitments. For the Bank of England's pension fund a 3% discount factor was used. Why: Because discounting cannot be done with the help of uncertain future returns over inflation levels which themselves are also uncertain. Notwithstanding the great actuarial insights in longevity factors, the needed level of provision for old age cannot be an accurate science, even if all investments outstrip inflation levels. There will always be some risks.

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Tables and References

Table 1: U.K. home value changes from year to year, loans' changes and the net equity effect on individual households 2002-2011 in £billion

Table 2: U.K. house prices by property type 2002-2012

Table 3: Great Britain Annual new housing starts 2002-2011

Table 4: New home mortgage approvals 2003-2012

Table 5: Company bankruptcies in England and Wales 2002-2012

Table 6: U.K. government net debt level outstanding end of fiscal year 2005-2013

Table 7: Annual mean yield 10 year gilts, base rates and inflation level (RPI), 2002-2012

Table 8: Employment, Unemployment in numbers and as a percentage of the labour force 2002-2012

Table 9: Current account deficit in percentage and amounts £billion 2004-2012

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