

3 – Red ink rising: how worrying is the UK economy’s total debt burden?

There has been much concern in recent years about the UK’s rising public debt burden and many commentators have been concerned for some time about the increasing level of UK household debt relative to income levels¹. In this special article we revisit these issues but put them in the context of the overall debt burden of the UK economy including not just government and households but also financial institutions and other companies.

The discussion is organised as follows:

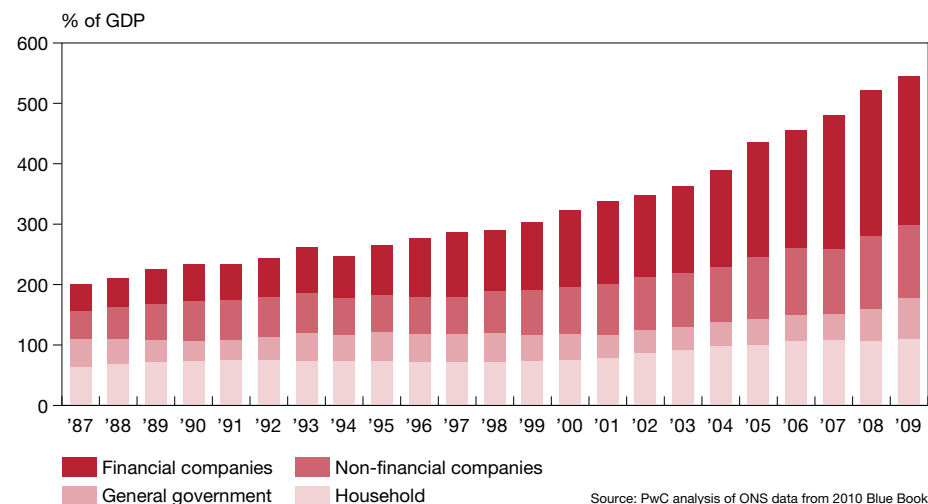
- Section 3.1 presents and discusses trends in total UK debt levels over the period since the late 1980s;
- Sections 3.2 to 3.5 look in more detail at trends in the levels of debt in the four major sectors of the UK economy as defined in the national accounts: households, non-financial companies, government and financial corporations; these sections include discussion of key risks and vulnerabilities for each of these four sectors;
- Section 3.6 presents some illustrative projections as to how total UK debt might evolve over the next five years and what this might mean for debt servicing costs as and when interest rates return to more normal levels in the medium term; and
- Section 3.7 summarises and draws conclusions from the analysis.

3.1 – Trends in total UK debt: 1987-2009

Figure 3.1 shows official ONS data on total gross debt² outstanding of the UK household, non-financial corporations, general government (i.e. central and local government) and financial corporations sectors as a share of GDP in each year from 1987 to 2009. These are taken, like most of the data quoted in this article, from the latest annual Blue Book³ published in July 2010. We can see from Figure 3.1 that:

- total gross debt outstanding has risen almost every year from around twice national income in 1987 to around 5.4 times national income (543% of GDP) in 2009;
- the rate of increase in the total debt to GDP ratio appears to have accelerated after 2003, with all sectors seeing their debt stock rise relative to GDP, but the most marked increase occurring in the financial and non-financial corporations sectors;
- the recession of 2008-9 has not seen any halt in this upward trend, although it has been marked by a significant rise in general government debt as a share of GDP, which had been much more subdued than private sector debt up to 2007; and
- despite this recent rise, government debt remains a small part of total UK debt outstanding, which may be contrary to the

Figure 3.1 – Gross UK debt stock outstanding by sector as % GDP



impression sometimes given in general media commentary that rising public debt is the major economic challenge facing the UK at present; while this fiscal challenge is clearly significant, Figure 3.1 makes clear that it is in the private sector where the debt explosion of the period since the mid-1980s has been most marked.

Table 3.1 provides some more precise figures for selected years, including cash totals for the gross debt stock outstanding at the end of 2009, which was around £7.5 trillion for the economy as a whole. Comparing cash figures between years is, however,

less relevant than looking at ratios to the national income (GDP) from which debt will ultimately have to be repaid.

The rise in debt of the financial sector from 46% of GDP in 1987 to 245% in 2009 is particularly striking, although there are some special factors to bear in mind here as discussed further in Section 3.5 below. Even excluding the financial sector, however, gross UK debt almost doubled relative to GDP from just over 1.5 times national income in 1987 to around 3 times in 2009, with most of this increase coming in private sector debt. On the face of it, such rapid

¹ Including an article in the July 2004 issue of UK Economic Outlook on ‘How affordable is UK household debt?’, which concluded that either a sharp rise in interest rates or a marked decline in house prices could raise questions about the sustainability of UK household debt. House prices have fallen back since their 2007 peak, but exceptionally low interest rates have so far softened the blow. We discuss later in this article how long this can continue.

² Gross debt is defined to include loans taken out and bonds and other debt securities issued by economic units in each of the four sectors (but excluding financial derivatives for the reasons discussed in Section 3.5 below).

Note that gross debt does not include unfunded or under-funded pension liabilities, which would add considerably to the total for government and (to a lesser degree) non-financial companies, but are not included in the national accounts.

increases might not seem sustainable, but the counterarguments to consider are that:

- both real and nominal interest rates (both in the UK and globally) have fallen markedly since the early 1990s, which has made it possible to service a larger debt stock relative to income levels; and
- the rise in debt has been matched (or more than matched) by increases in the market values of the assets of households and companies over the period, despite the declines seen in housing and equity values since their cyclical peaks in 2007.

To explore these issues further, it is useful to look in more detail at each of the four sectors individually, since their circumstances vary and different metrics are appropriate in each case to assess debt sustainability. We return to the more general question of future debt sustainability for the UK⁴ as a whole in Section 3.6 below.

3.2 – Household sector debt

While GDP is the obvious income variable to use as a denominator in debt ratios when looking across all sectors of the economy, for the household sector it is more meaningful to look at ratios of debt to household disposable income (i.e. after paying tax and other net transfers). Figure 3.2 shows this ratio for both total household debt and mortgage debt, which is the dominant element in the total (the difference between the top

two lines in the chart represents unsecured household credit).

We can see that both total and mortgage debt of households was on a rising trend relative to disposable income during the housing and consumer boom of the late 1980s, but then fell back in the 1990-92 recession (particularly for unsecured credit) and remained fairly flat until the late 1990s. During the period from 2001 to 2007, however, household debt rose very sharply as both mortgage debt and unsecured credit rose much faster than incomes, encouraged by booming house prices, low interest rates, low unemployment rates and generally stable economic conditions in the UK, which enjoyed continuous growth in GDP in every quarter from 1992Q3 through to 2008Q1 (see Figure 2.1 in Section 2 above).

These relatively benign economic conditions boosted the confidence of households in taking on debt, particular to fund house purchases. As the bottom line in Figure 3.2 shows, the ratio of mortgage debt to housing assets did rise during the first half of the 1990s as house prices fell or stagnated and some households were pushed into negative equity. Mortgage arrears rose sharply during this period, bearing in mind that nominal interest rates were high, particularly in 1990-92. Relative to that period, the recession of 2008-9 has not put nearly as much strain on household finances because interest rates

Table 3.1 – Trends in gross UK debt by sector

% of GDP (except last column)	1987	1995	2003	2009	£ trillion at end of 2009
Households*	63	73	92	110	1.5
Non-financial corporations	45	62	89	122	1.7
General government	47	48	38	67	0.9
Total debt of non-financial sectors	155	183	219	299	4.1
Financial corporations	46	82	144	245	3.4
UK total debt	202	266	363	543	7.5

*In line with standard national accounting practice, this sector includes non-profit institutions serving households (NPISH). This definition applies to all data for the household sector included in this article.

Source: PwC analysis of data from ONS Blue Book 2010. Columns may not add up exactly due to rounding.

have been so much lower than in the 1990s and mortgage arrears have picked up only modestly during the current downturn.

For example, official ONS data from the Wealth and Assets Survey published in December 2009 showed that around 15% of borrowers had missed at least two regular repayments on their debt, but this was almost entirely relatively small amounts on unsecured consumer credit. Only around 1% of mortgage holders had missed more than two monthly payments.

In the short term, therefore, the high level of household debt looks sustainable, but this is heavily dependent on current low levels of interest rates and also the fact that house

prices rallied in the year after March 2009, so avoiding too many households falling into negative equity. But, as noted in Section 2.1 above, more recent data suggest that house prices have started to weaken again in the second half of 2010 and, while the Bank rate has remained at an historic low level of 0.5%, margins on mortgages and other consumer debt have risen relative to the boom period of 2003-7 according to Bank of England analysis⁵.

Eventually, the Bank rate is likely to go back up to more normal levels of around 5% (and quite probably higher at some points in the economic cycle) and when that happens, even if it is 4-5 years away, interest rates on mortgages and other household debt could

³ The 'Blue Book' is the annual ONS report that gives the most comprehensive analysis of the national accounts for different sectors of the economy and in aggregate. Latest available data are for 2009.

⁴ Our focus in this article is on the UK, although clearly total debt levels have also risen rapidly in recent decades in the US and some other European countries such as Spain and Ireland. But analysis by the McKinsey Global Institute (Debt and deleveraging, January 2010) shows that the UK has had the most rapid rise in total debt to GDP ratios since the late 1980s of any of the major G7 economies. The McKinsey analysis does not, however, go into as much detail as this article in analysing UK debt trends and is based on somewhat less up to date information.

⁵ For recent data on household lending rates and margins, see the article on 'Understanding the price of new lending to households' by R. Button, S. Pezzini and N. Rossiter in the Bank of England Quarterly Bulletin, Q3 2010.

well be higher than before the recession if margins do not fully return to previous relatively low levels given that lenders will face tougher regulatory regimes than in the past that will tend to push up their costs (e.g. due to higher capital ratios).

At this point, many more households will feel the squeeze of inherited high debt levels, which as Figure 3.2 shows have not fallen back all that much during the recession of 2008-9, particularly for mortgage debt. Based on the household debt stock data in Table 3.1 above, for example, every 1 percentage point rise in average interest rates on this debt could add around £15 billion to household debt interest costs. It is quite possible that by, say, 2015, average interest rates on household debt might have risen by around 3-4 percentage points (allowing for a rise in the official Bank rate from 0.5% to 5% offset by some reversal of the rise in average lending margins since Autumn 2008), so the impact on household borrowing costs could be around £45-60 billion per annum based on debt levels at the end of 2009⁶. This would be offset by some gains in interest income for savers, but probably not entirely⁷ and, in any event, many households with significant savings would just allow such additional interest to build up in their savings accounts, whereas borrowers may find it harder to absorb such large increases in debt interest payments without cutting

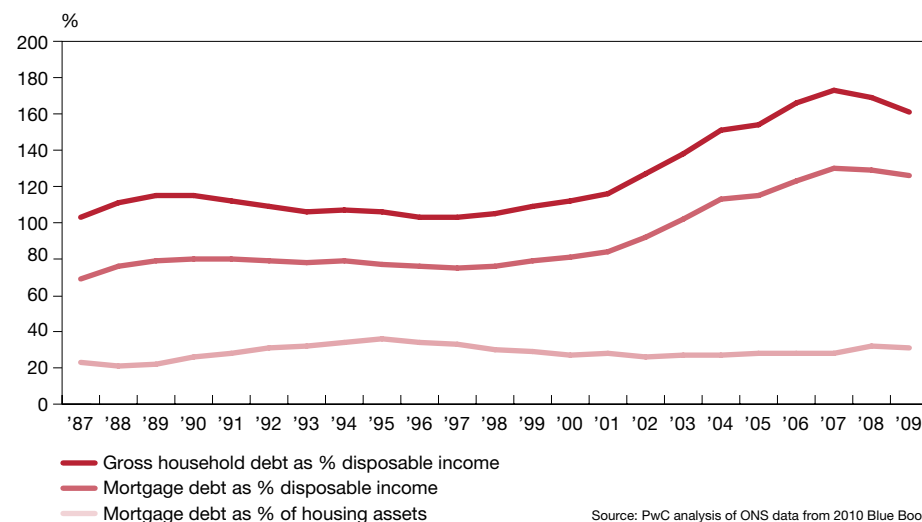
back on consumer spending. Selling your home to reduce these debt service costs may not be possible for most households, while the other key household asset in the form of funded pensions is even less liquid.

3.3 – Non-financial company debt

As shown in Figure 3.1 and Table 3.1 above, the debt stock of UK non-financial companies⁸ has risen even more rapidly than household debt since the late 1980s, with particularly rapid growth in the ratio to GDP in the period from 2003-7. This reflected factors such as the private equity boom and use of debt to fund mergers and acquisitions during those years, as well as rapid growth in debt-financed commercial property investment (which accounts for almost half of all UK bank lending to non-financial companies according to Bank of England data⁹).

Rather than looking at ratios to GDP, a more common way to assess corporate debt levels is to look at gearing ratios of the kind shown in Figure 3.3. These are defined as the ratio of debt to debt plus equity (i.e. capital employed), where equity is expressed at market values. We look both at gross gearing and at net gearing where debt is adjusted by deducting holdings of currency and bank deposits. The latter ratio is lower, but the trends are very similar over time in both measures:

Figure 3.2 – Key household debt ratios



Source: PwC analysis of ONS data from 2010 Blue Book

- gearing follows a clear cyclical pattern with a rise in the late 1980s (also a period of strong M&A activity and of leveraged buyouts that were the precursor of more recent private equity deals), then a long period of decline in the aftermath of the early 1990s recession;
 - gearing rose sharply in 2001-3, but this was primarily due to falls in equity prices due to the dot.com crash, rather than particularly rapid growth in corporate debt;
 - during the boom years of 2004-7, equity values rose strongly along with corporate debt, so the gearing ratio was relatively stable; and
 - as equity values declined in 2008, so the gearing ratio picked up again sharply, but fell back with the equity market rally in the last three quarters of 2009.
- Cyclical movements in gearing over time therefore appear more linked to fluctuations in equity prices, reflecting the fact that the latter can occur much more rapidly than fluctuations in the value of the debt stock, which evolves only gradually. Nonetheless, if we look through the cycle variations in Figure 3.3, there does appear to be an

⁶ As discussed in Section 3.6 below, the figures would be higher after allowing for plausible projections of rising household debt levels up to the end of 2015.

⁷ Bearing in mind also the significant, if declining, customer funding gap that UK banks still face between their stocks of loans and deposits.

⁸ Note that the national accounts data cover companies of all sizes, both quoted and unquoted. Due to different accounting standards, this is not easy to reconcile fully to estimates based on aggregating data on debt and gearing ratios from company accounts. This is particularly true where the latter only relate to quoted companies and so exclude, in particular, highly leveraged private equity deals.

underlying tendency for both gross and net corporate gearing ratios to trend upwards since 1987 according to this national accounts data. The most plausible explanations for this trend are lower real interest rates and, until the last two years, the ready availability of credit for private equity deals and other highly leveraged transactions¹⁰.

To assess how sustainable this rise in corporate gearing may be, it is useful to look at ratios of gross and net debt to a measure of corporate income¹¹, as shown in Figure 3.4.

We can see from Figure 3.4 that there has been a marked upward trend in the ratio of debt to corporate income since the late 1990s, although somewhat less so for net than gross debt. This measure of the affordability (or non-affordability) of debt has risen further during the recession of 2008-9, although this will have been offset by lower interest rates for those companies that could access credit. However, for many small and medium-sized enterprises (SMEs) this may not have been the case and latest Bank of England surveys suggest that the availability of credit to such companies remains highly constrained¹², with spreads over base rates remaining elevated, at least relative to the pre-recession period (where they may, however, have been unsustainably low). Bond markets have been more accessible since Q2 2009 for larger companies, supported by quantitative easing that

underpinned this market, but there must be risks that recently relatively low rates cannot be sustained in the medium to long term.

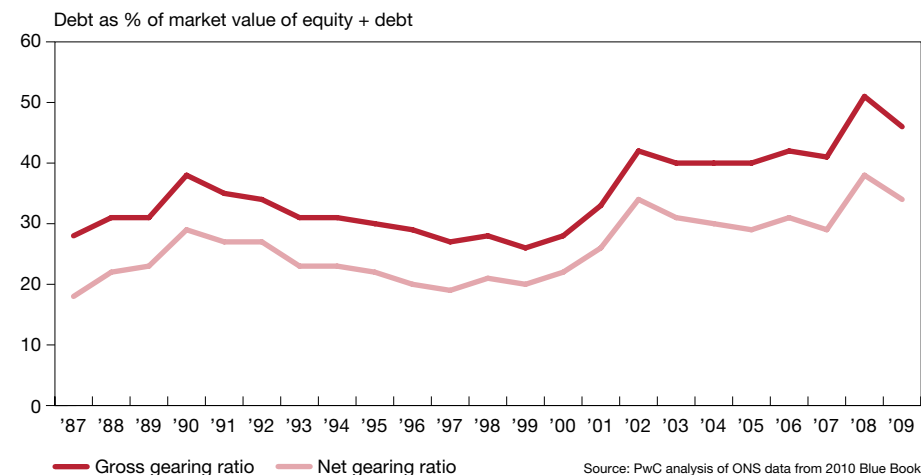
The national accounts data are not broken down further by industry sector, but earlier analysis by PwC based on more than 6,000 companies listed on Datastream suggests that gearing ratios were relatively high (see Figure 3.5) for utilities, hotels and restaurants, transport companies, food manufacturers and both food and non-food retailers. Utilities may be protected by their regulated status but other sectors, and particularly commercial property which was not separately identified in our earlier analysis, could be relatively highly exposed to any future rise in interest rates given their high inherited debt levels.

For sectors without much debt related to commercial property, however, Bank of England data suggest that gearing ratios have not risen materially over the past decade and so there may be less exposure here to future rises in debt service costs and/or renewed property price falls.

3.4 – General government debt

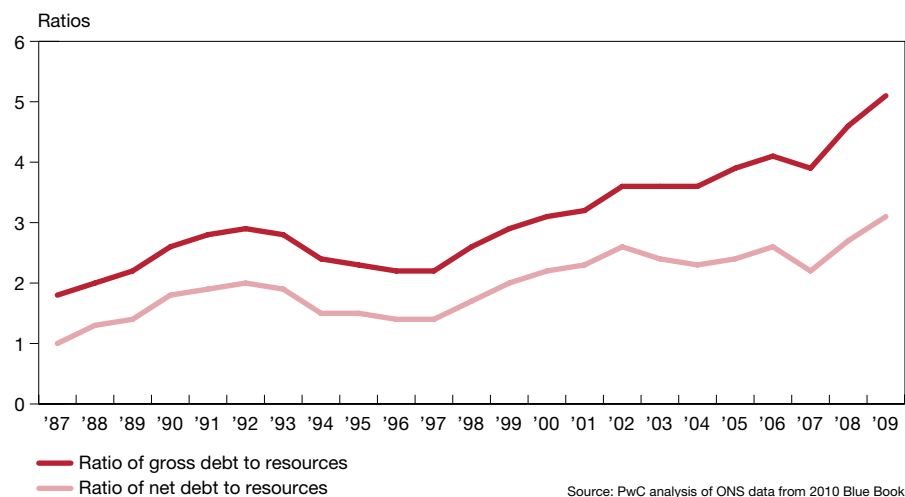
In the aftermath of the second world war, UK government debt was well over 200% of GDP and dwarfed the private sector debt outstanding at the time. This public debt burden was brought down in the 1950s and 1960s by a combination of reasonably steady economic growth and inflation (given the debt was not index-linked) and, in gross

Figure 3.3 – Gearing ratios of non-financial companies



Source: PwC analysis of ONS data from 2010 Blue Book

Figure 3.4 – Debt of non-financial companies relative to corporate income levels



Source: PwC analysis of ONS data from 2010 Blue Book

9 Based on the discussion of commercial real estate lending risks on page14 of the August 2010 Bank of England Inflation Report. That report notes that commercial real estate prices in mid-2010 were still around 35% below their mid-2007 peak, despite a rise of around 15% from their trough in mid-2009.

10 The abolition of dividend tax credits in 1997 also tended to increase the potential tax advantages of debt relative to equity.

11 The national accounting measure used here is 'resources', which broadly equates to the post-tax income of non-financial companies.

12 The banks would argue that low net lending reflects lack of demand as much as lack of credit supply, although this is not the message coming from SMEs themselves.

terms, it then tended to settle at around 40% of GDP, which was where it stood in the late 1980s (see Figure 3.6).

Since then UK government debt, whether measured in gross or net terms, has followed a cyclical pattern, with reductions in time of relatively strong growth (late 1980s and late 1990s) and increases during recessions (early 1990s and 2008-9). The latest rise in government debt is particularly marked and is set to continue for some years to come before the planned fiscal squeeze brings it under control at a peak of around 80% of GDP in gross terms in 2013.

The tax rises and public spending cuts planned will clearly impose pain on the economy, but it does look as if UK public debt will be contained at sustainable levels so long as the announced measures are implemented over the next 4-5 years. Public debt should remain below the 90% of GDP level at which a serious negative impact is estimated to occur according to statistical analysis of financial crises around the world over the past two centuries by Reinhart and Rogoff (2009)¹³.

Of course, the ageing population will put further upward pressure on UK public debt (and/or taxes) in the longer run through increased state pension and healthcare costs, but for the next few years the key issue is how the fiscal squeeze will impact the

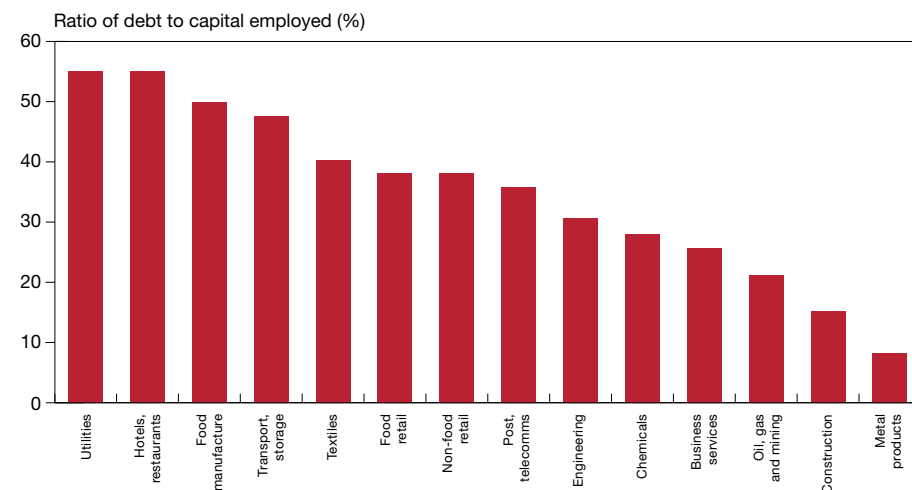
economy (as discussed further in Sections 2 and 4 of this report) rather than whether UK public debt is sustainable. Compared to private sector debt, it appears relatively modest as shown in Table 3.1 above.

3.5 – Financial sector debt

Definitions of debt are reasonably straight forward in the household, government and non-financial corporate sectors, but data for the financial sector is rather more complex to interpret¹⁴. It should first be noted that we are looking here at the loans taken out and the bonds issued by banks and other financial institutions, not the loans they make themselves. In other words, we are focusing on the liabilities side of their balance sheet, not the assets side.

Second, we do not include deposits of banks and building societies in our measure of debt, even if they are (in most cases) interest-bearing liabilities of these financial institutions. This is because such deposits form the basic inputs to the banking process in its traditional form, although it must be admitted that the difference between banks raising money as deposits to lend on to their customers rather than, say, short-term money market instruments like certificates of deposit (CDs) or commercial paper is open to debate given how central the latter funding approach has become to the business of most banks over the past 30 years in particular.

Figure 3.5 – Gearing ratios by industry sector



Source: PwC analysis of information from Datastream for 6,000 companies (2009)

We do, however, look at the ratio of financial sector debts to deposit liabilities as a measure of how vulnerable the funding of banks and other financial institutions has become in recent years. As illustrated by the bottom line in Figure 3.7, this ratio has shown a long-term trend increase, although this was actually more marked between 1987 and 2000 than in the last decade.

The other ratio shown in the top line in Figure 3.7 is a measure of gearing that is defined as the ratio of gross debt¹⁵ to debt plus the market value of equity as recorded in the national accounts. We can see that this ratio has been much more stable over

time, at least until before the fall in equity values seen since mid-2007. On this basis, the rise in financial sector debt might not look so dangerous in a balance sheet context. However, the experience of the global financial crisis shows that this can change rapidly if equity prices fall and, perhaps more importantly, if liquidity and therefore funding dries up in the debt markets as it did during the crisis.

Another way to look at financial sector debt is in relation to a measure of income for the institutions required. As Figure 3.8 shows, this debt to income ratio has shown a strong upward trend since 1987 that is

13 C.M. Reinhart and K.S. Rogoff, 'This Time is Different: Eight Centuries of Financial Folly', Princeton University Press (2009). The 90% of GDP figure is somewhat arbitrary in their analysis, but the view that there is some level of public debt above which financial shocks are more likely to occur that disrupt economic growth seems plausible and other studies by the IMF and OECD suggest that debt levels above 100% of GDP can certainly increase these risks materially, except in special cases like Japan where there is a deep domestic market for public debt.

14 Another complication is that many leading UK financial institutions are global players, so a significant part of the debts we refer to here will relate to overseas operations. Unfortunately data are not available in the national accounts to break liabilities down in this way but, in any event, if the home country of these institutions is the UK, then problems with their overseas lending could still lead to the risk of bailouts by the UK authorities and ultimately the UK taxpayer.

15 Net debt is not as meaningful for most financial institutions as it is for non-financial companies

similar to the financial sector debt to GDP ratio, although with considerable volatility in recent years. In 2006-8, financial sector incomes were strong so the ratio dropped, but this was sharply reversed in 2009 after the global financial crisis took full effect. Looking through this volatility, however, the financial sector looks relatively exposed on this measure.

Note that the financial sector definition includes not just banks and building societies here, but also a wide range of other financial intermediaries and auxiliaries (hedge funds, fund managers, private equity houses etc), as well as insurance companies and pension funds (except where the latter are classified as non-profit institutions serving households, in which case they are included in the household sector figures discussed in Section 3.2 above). We can show how these sectors vary by breaking down their debts at the end of 2009 as shown in Table 3.2. This illustrates that:

- loans are the preserve of financial intermediaries and auxiliaries other than banks and building societies, whereas bonds and other debt securities are used significantly by both categories of institution;
- insurance companies and pension funds included in the financial sector in the national accounts do not have debts of any material level (they do have other large liabilities that may be debt-like in some

respects, notably as regards pensions, but these are not included here since this article is based on national accounting conventions).

Table 3.2 also includes some information on financial sector assets and liabilities in the form of derivatives. These were very large in gross terms at over £5 trillion at the end of 2009 and had been over £9 trillion just a year earlier before the process of post-crisis unwinding began, but they largely net out across the financial sector. However, as we saw during the crisis, the assumption that these derivative holdings are reasonably liquid and that counterparty risks are not too great may not be valid. This means that the scale of gross derivative holdings is also a source of risk for the sector and clearly remained very high at over £5 trillion even at the end of 2009.

The Bank of England will therefore want to monitor derivatives exposure in much more detail going forward, but it is beyond the scope of this article to consider this issue further here, other than to note that derivatives are very much a game played between financial institutions. Gross liabilities (or assets) held in the form of financial derivatives were minimal for all other sectors of the UK economy according to national accounts data (e.g. £33 billion outstanding at the end of 2009 for all non-financial companies, as compared to £5,274 billion for financial institutions).

Figure 3.6 – General government debt as % GDP

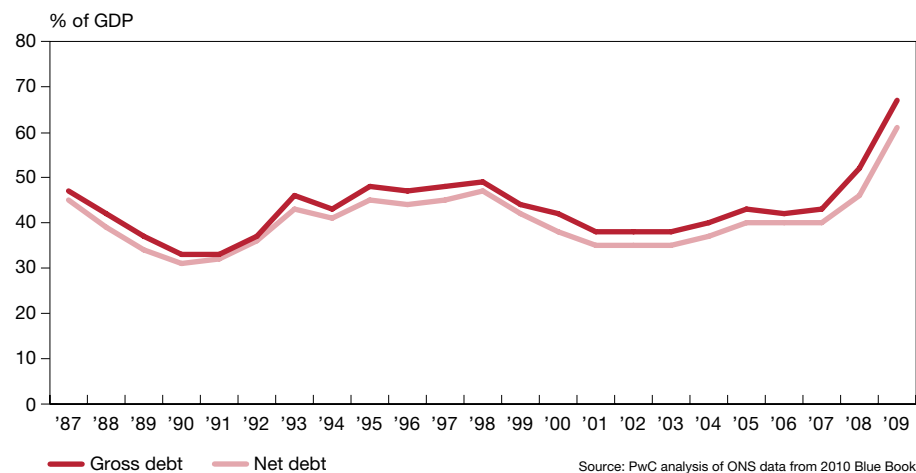


Table 3.2 – Breakdown of financial sector debts and financial derivatives by type of institution (end of 2009)

£ billion	Banks and building societies	Other financial intermediaries and auxiliaries	Insurance companies and pension funds*	Total financial sector debt
Bonds and other debt securities	1027	784	2	1812
Loans	3	1546	46	1596
Total debt**	1030	2330	48	3408
Derivative assets	4105	1096	73	5274
Derivative liabilities	4052	1127	5	5184
Net derivatives	53	-31	68	90

* Where not included in the household sector
 ** Excluding financial derivatives

Source: ONS Blue Book 2010

In summary, UK financial sector debt has risen very rapidly over the period since the late 1980s and the global financial crisis has not reduced the ratio to GDP materially so far. This is even before considering additional risks associated with financial derivatives. Although the position of the UK financial sector appears to have been successfully stabilised since the peak of the crisis in autumn 2008, it is clear that for the foreseeable future the legacy of high debt will remain a burden on the sector, and a source of potential risk for both the institutions concerned and the wider UK economy.

3.6 – Medium term outlook for UK debt levels

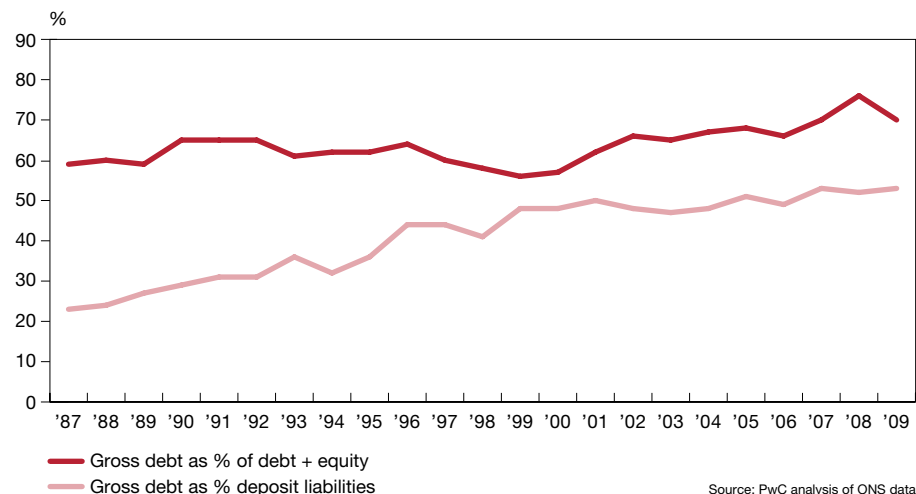
Looking forward, there are clearly many uncertainties surrounding the future evolution of UK debt levels, but in this section we sketch out a main scenario that we consider plausible for the period to 2015 and then indicate what might be a realistic range of outcomes around this central view.

Our main scenario has the following key assumptions and features:

- nominal GDP rises in cash terms by around 4.5% in both 2010 and 2011, picking up gradually to around 5% in 2012 and an average of 5.5% per annum in 2013-15;

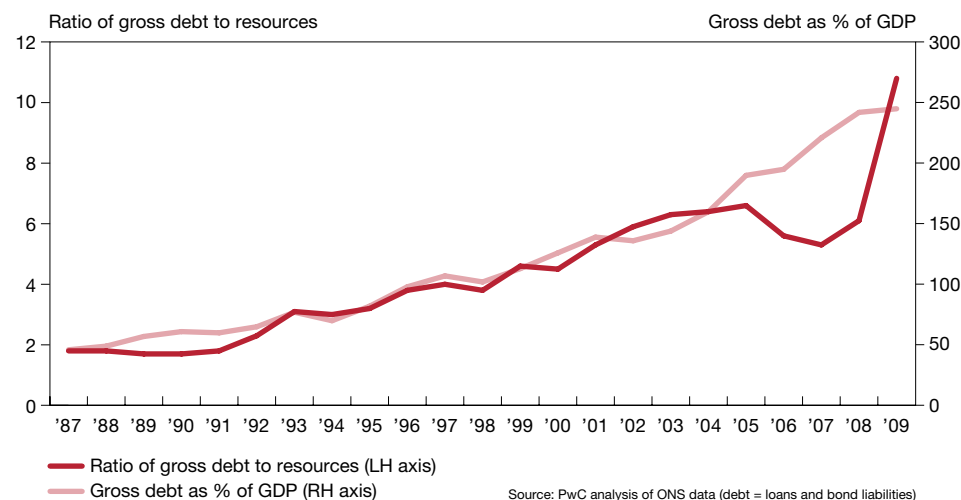
- non-financial companies remain cautious in their borrowing (as do lenders) for the next few years, with growth of the corporate debt stock being 2 percentage points per annum lower than nominal GDP growth in 2010 and 2011 and 1 percentage point lower in 2012; thereafter, conditions normalise but lenders maintain a relatively cautious approach and therefore the corporate debt stock rises only in line with GDP in 2013-15;
- financial sector debt falls over the next few years relative to GDP as banks cut back on their reliance on money market funding and other financial intermediaries are constrained in their borrowing by new regulations; from 2012, however, this trend flattens out and, by 2014-15, financial institutions are again leveraging up (albeit still on a much smaller scale than in earlier boom years) with the result that financial sector debt resumes its rising trend relative to GDP;
- household borrowing rises much more slowly than GDP for the next 3 years reflecting subdued housing market conditions, tight lending constraints and the impact of the fiscal squeeze; only from 2013-15 does household borrowing stabilise relative to nominal GDP growth; and

Figure 3.7 – Gearing and funding ratios for UK financial institutions



Source: PwC analysis of ONS data

Figure 3.8 – Key gross debt ratios for UK financial institutions



Source: PwC analysis of ONS data (debt = loans and bond liabilities)

- public sector borrowing evolves in line with OBR projections; as a result, gross general government debt rises to a peak level of around 81% of GDP in 2013, but declines gradually thereafter due to the effects of the fiscal squeeze and a return to reasonable nominal GDP growth.

Putting together these assumptions in a simple model gives the main scenario projections for UK debt in 2015 in total and by sector shown in Table 3.3 in both cash terms and as a % of GDP.

We can see that, in our main scenario, rising government debt as a share of GDP is narrowly outweighed by constrained growth in private sector debt over this period, so that the ratio of total UK debt to GDP declines slightly from 543% in 2009 to 536% in 2015. But this is a very marginal change and any such projections are subject to considerable uncertainty as shown by the plausible range indicated in the bottom row of Table 3.3. This could see total UK debt in 2015 anywhere between 500% and 580% of GDP, depending both on the health of the economy and the appetite of both lenders and borrowers. Even in the low scenario with significant private sector deleveraging, however, a total debt to GDP ratio of 5 would be way above historic total debt to GDP

ratios of around 3 in 2000, let alone levels of only around 2 in 1987.

Potential impact of medium-term interest rate rises on debt servicing burden

We can also note that the absolute amount of debt in our main scenario is projected to top £10 trillion by 2015 at a time when GDP will still be less than £2 trillion. This is a heavy burden of debt for the economy to continue to bear, particularly with interest rates likely to rise significantly at some point over the next 5 years (and indeed bearing in mind the longer term challenge of paying for the pensions and healthcare costs of an ageing population).

We noted in Section 3.2 above that a potential 3-4 percentage point rise in average interest rates by 2015 could add around £45-60 billion a year to household debt interest payments at 2009 values, which could rise to around £57-76 billion per annum based on projected household debt levels at the end of 2015 in our main scenario. The same rise in average interest rates could add around £66-88 billion a year to non-financial corporate debt payments in 2015, or around £42-56 billion to government debt interest payments by that year. In total, debt interest payments

Table 3.3 – Main scenario projections for UK debt stock in 2015 (and plausible ranges)

Sectors	Debt in cash terms (£ trillion)		Debt as % of GDP	
	2009	2015	2009	2015
Households	1.5	1.9	110	101
General government	0.9	1.4	67	77
Non-financial companies	1.7	2.2	122	116
Financial sector	3.4	4.5	245	242
Total UK debt	7.5	10.2	543	536
Plausible range	n/a	9-11.5	n/a	500-580

PwC estimates and projections based on ONS Blue Book data for 2009

of the non-financial sector could rise by around £170-230 billion per annum by 2015 in our main scenario. In order of magnitude terms, this would not change all that materially in lower or higher debt scenarios with a likely range of around £150-250 billion per annum, equating to around 8-13% of projected GDP in that year.

These conclusions need to be qualified by saying that household savers would gain from higher interest rates, as would companies with large interest-paying deposits. The net effect on the financial sector, despite its high debt levels, could also be positive from

higher interest rates, which is why we did not try to include them in the gross estimate above. Bearing this in mind, the lower end of the above range (i.e. 8% of GDP) is likely to be more realistic.

Nonetheless, there is likely to be a significant negative dampening effect on spending power across the non-financial sector if and when interest rates do rise back to more normal levels, although the fiscal squeeze does mean that this will take longer to occur than would otherwise be the case and could indeed extend beyond the 2015 date assumed in the illustrative calculations above.

3.7 – Summary and conclusions

Our analysis has shown that the total burden of debt on the UK economy rose from around twice national income in 1987 to around three times national income in 2000, but then accelerated much more rapidly to around 5.4 times national income by 2009. This total debt to GDP ratio continued to rise even during the recession of 2008-9 as GDP fell back and public debt rose enough to offset some decline in corporate and household debt.

This rise in total UK debt has been driven by all three private sector groups: households, non-financial companies and (most dramatically in recent years) financial institutions. Public sector debt was, by contrast, broadly stable as a share of GDP up to 2007 and remains relatively low in absolute terms even after the recession.

The huge rise in private sector leverage in the last decade in particular has pushed the ratio of debt to income to historic highs in all parts of the private sector. In our main scenario projection, the total UK debt to GDP ratio remains around 5.4 times national income up to 2015, but with some switch from private to public sector debt during this period. Even in our low scenario with more significant private sector deleveraging, total UK debt remains around 5 times national income in 2015, way above historic levels.

At present, with Bank rates at record low levels, these kind of debt levels may be sustainable for the household and corporate sectors as a whole¹⁶, but this may not remain capital for lenders). For the UK non-financial the case in the longer term as and when interest rates return to more normal levels (but perhaps with a higher margin over Bank rates or

Libor due to tougher financial regulation and consequent higher costs of capital for lenders). For the UK non-financial sector as a whole, including government, gross debt interest payments could increase by around 8% of GDP or more by 2015 in our main scenario, implying a sharp dampening effect on spending power. The impact on net debt interest would be less marked due to benefits to household savers in particular, but if such additional interest is left in savings accounts rather than spent, then this may not do much to mitigate the overall squeeze on the spending power of the UK non-financial sector as and when interest rates do increase.

Admittedly, the severe fiscal squeeze planned by the coalition government should allow interest rates to remain lower for longer and so should delay the point at which any such debt service squeeze on spending power would

take effect, perhaps to some time beyond 2015. This fiscal squeeze should also serve to keep public sector debt at sustainable levels in the medium term. Nonetheless, we need to be aware of the fact that private sector leverage levels in the UK have reached historically unprecedented levels and, sooner or later, this will have a dampening effect either through debt having to be run down significantly, or through a persistently heavy debt service burden on both households and companies. The period of relatively modest UK domestic demand growth could therefore extend beyond the fiscal squeeze of the next few years if, as we expect, this is followed in due course by a return to more normal levels of interest rates on a continued very high outstanding debt stock. Deleveraging will be a long and painful process for the UK economy.

¹⁶ Although this may not be true for those individuals and companies judged less creditworthy by lenders and so facing significantly higher margins over Bank rate, Libor or gilts.