Group Economics

The Royal Bank of Scotland Group

Can the UK inflate away its debt problems?

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Classification: Public

- On current plans, UK sovereign debt will remain above 40% of national income for at least 20 years. Some suggest that the Government could reach that level much sooner by inflating the debt away. We do not think this is a credible option.
- It would take 15% inflation to bring the debt ratio back towards pre-crisis levels within 5 years. In other words, a planned return to the 1970s. Engineering inflation of this magnitude would require a radical change in economic policy and generate enormously damaging side effects.
- Financial repression – forcing agents to hold government bonds in order to keep sovereign borrowing rates artificially low – represents a more likely tool than high inflation for reducing government debt.

Many developed economies are struggling to cope with high levels of public sector indebtedness. **The UK has seen sovereign debt double from 38% of GDP in 2007 to 77% in 2011**. Accordingly, the Institute for Fiscal Studies forecasts that it will take twenty years for the stock of debt to fall to 40% of GDP. Against this backdrop there has been increased focus on tools to reduce sovereign indebtedness. There have been suggestions that the burden of government debt, 75% of which is denominated in nominal terms, can be quickly and dramatically reduced by inflation.

Chart 1: UK net debt to GDP ratio (%)

Source: IMF

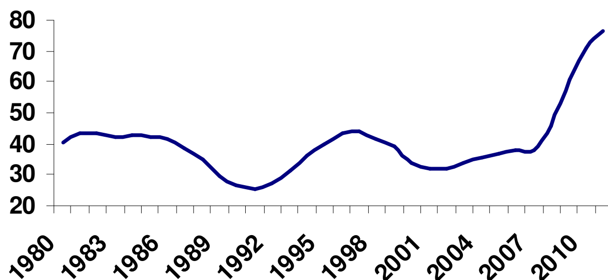
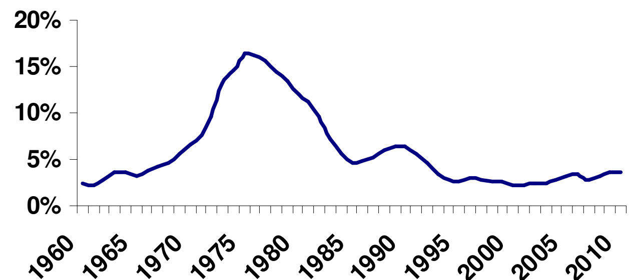


Chart 2: UK retail price inflation 5 year average (%y/y)

Source: ONS:



How do you engineer inflation?

Traditional economic theory states that inflation is driven by changes in the money supply. There is an (unrealistically) simple exercise that can illustrate this. Imagine that the Bank of England were to tomorrow replace every pound in the economy with two new pounds. All things being equal, prices for goods and services would simply double. In short, a change in the money supply should lead to a proportionate change in the price level, with no effect on the underlying value of goods and services. There is strong empirical evidence that this relationship holds in the long run (Chart 6), but it is less predictable over the short run.

Targeting moderate inflation, say between 4-8%, would require a new monetary policy approach. The Bank of England would need to explicitly target a higher rate of inflation or switch to nominal GDP targeting. Incoming Bank of England Governor Mark Carney has suggested that alternative targets could be used intermittently to provide extraordinary stimulus. Under a revised target the Bank could use both conventional and unconventional monetary policy (working primarily through the money supply) to boost inflation.

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Extreme methods would be needed to achieve a burst of high inflation (between 12-20%). This equates to an aggressive expansion in the money supply. The independence of the central bank would probably have to be revoked and public spending financed through printing money – a policy known as monetary financing. This would serve the dual process of paying for budget deficits and creating inflation. The primary deficit is currently running at £86bn, printing money to finance this would increase the monetary base by around 24% annually.

Cancelling the £375bn in government bonds that have been purchased through the Quantitative Easing Programme would have similar effects. This would make the £375bn increase in the money supply generated by this policy permanent. In the short run this might not have a large effect. Moving forward, history tells us that the long run relationship between inflation and the money supply is likely to re-assert itself, driving a surge in price growth.

What are the costs of inflation?

Our entire economic policy is calibrated towards achieving low and stable inflation. Price stability prevents inflation from influencing the economic decisions of households and firms, which encourages the efficient utilisation of resources. **Inflation meanwhile generates unpleasant side effects, which increase as it becomes higher and more volatile**. Empirical evidence shows that inflation reduces both long and short run economic growth, predominately by lowering investment and productivity. The distributional impacts of inflation can also lead to social and political instability.

There is less research on the impact of inflation on the financial sector. There is however a fairly broad consensus that inflation subdues demand for credit, as investment opportunities become less profitable and predictable. This is expected to become more acute as inflation reaches a threshold of 10-15%. A recent paper by the Cleveland Fed finds that **inflation has a dramatic negative impact on bank profitability**, proxied by a number of variables (Net Interest Margin, Return on Equity, Gross Value Added). This paper attributes these declines to the delayed reaction of bank lending rates to the rise in inflation.

Finally, **inflation is not easily contained when unleashed.** Printing money to finance deficits has historically led to bouts of hyperinflation – most famously in Weimar Germany. It is also costly to bring down again. The UK struggled with persistently high inflation in the 1970s, an affliction that was only brought under control by a painful recession in the early 1980s. This process would be made more difficult by the loss of credibility from such radical economic policies.

Going it alone – a moderate dose of inflation

When used in isolation, moderate inflation has little effect on indebtedness. Our analysis (Chart 3) shows that inflation of 6% over 5 years reduces the UK debt ratio by just 10% (compared to debt under an inflation rate of 2%). An 8% inflation rate leaves the debt ratio at 71% in 2018, an improvement, but hardly inflating the debt away. These findings are in line with IMF analysis that inflation of 6% would on average reduce debt in OECD countries by just 8 percentage points over 5 years. Furthermore, these forecasts assume that austerity is taking place. If austerity is abandoned then moderate inflation can only hope to stabilise debt at a high level (Chart: 4).

Chart 3: UK Debt/GDP– moderate inflation & austerity

Source: IMF, Group Economics calculations

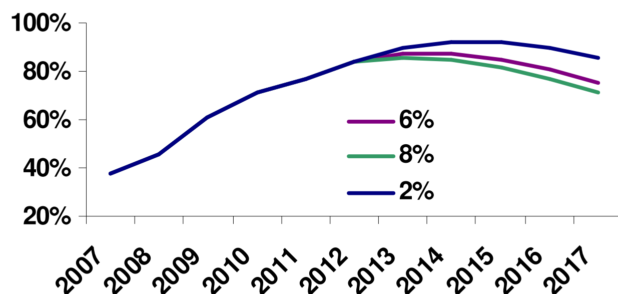
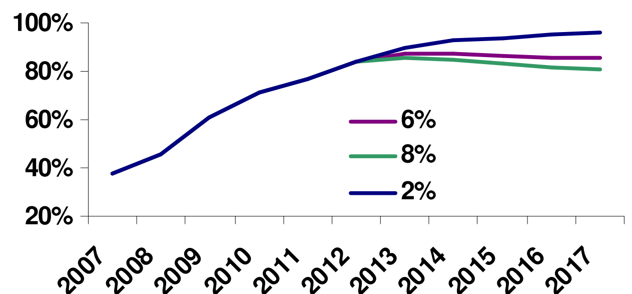


Chart 4: UK Debt/GDP – moderate inflation, no austerity

Source: IMF, Group Economics calculations



The limited effect of inflation is partly driven by the reaction of bond holders. Investors will demand a higher interest rate as inflation rises. The average maturity of UK Gilts is 14 years, which is unusually long (US: 5 yrs, Germany: 6 yrs). Nevertheless, the Government would still have to refinance a large portion of debt at higher interest rates over a 5 year period. **Overall it is highly unlikely that policymakers would consider this strategy worthwhile.** Certainly the difficulty of changing policy and the negative side effects it would generate are not worth the modest reduction in debt.

Letting the Genie out of the bottle – an inflation surge

High inflation can significantly reduce indebtedness. Our model suggests inflation of 15% over 5 years would push debt below 50% of GDP. This assumes that the government finances annual deficits through printing money, triggering uncomfortably high inflation. While this scenario is successful in eroding the debt burden, it **would generate severe repercussions for the economy**. Furthermore, the UK would lose credibility and face a long painful adjustment to bring inflation under control. Finally, there would be social outcry due to distributional impacts. **This is not a credible option.**

Chart 5: UK Debt/GDP - high inflation

Source: IMF, Group Economics calculations

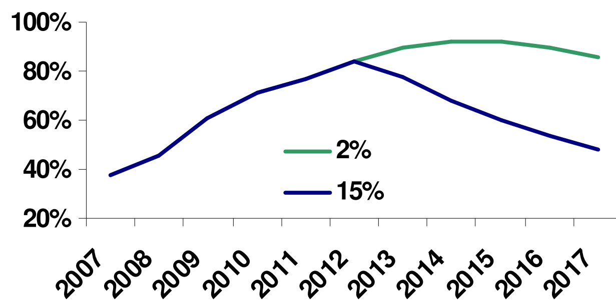
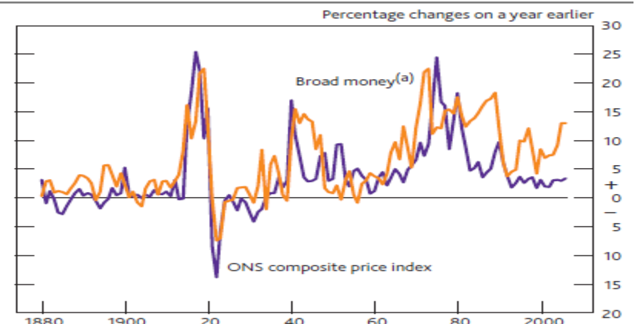


Chart 6: Broad money growth and inflation

Source: Bank of England



Steady as she goes – inflation as a tool for long term debt erosion

Inflation can be used alongside other debt management tools to erode debt over a longer timeframe. Financial repression is a policy of coercing agents into buying government debt in order to artificially reduce borrowing costs (Chart: 8). Crucially this reduces the problem cited earlier of investors charging the government higher interest rates to compensate for inflation. Therefore the real interest rate at which the government borrows remains low, or negative. If we add fiscal prudence to the mix and a gradual acceleration in growth then we see a pronounced impact on debt levels. Indeed the scenario in Chart 7 shows the debt-GDP-ratio halving over ten years.

Chart 7: UK Debt/GDP – 5% inflation & financial rep

Source: IMF, Group Economics calculations

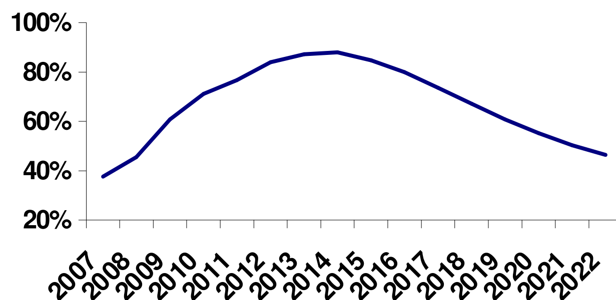
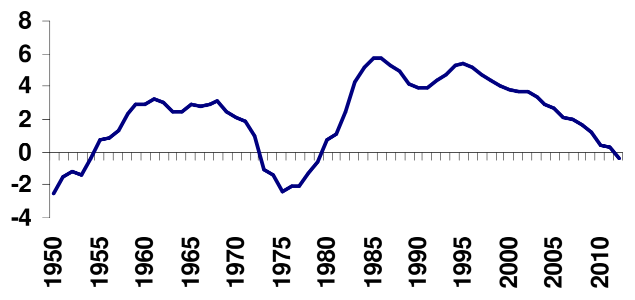


Chart 8: UK real interest rates (%, 5 year ma)

Source: Bank of England



This package of tools looks attractive at first glance, but there are downsides. Financial repression is painful for the captive holders of government bonds, who are being forced to swallow a loss on their investment. Furthermore, while inflation at 5% sounds moderate, this would still generate negative side effects over the longer term. Therefore **inflation in this context is still unlikely to be used, unless the economic or debt position deteriorates significantly**

Concluding remarks

Inflation can reduce debt but it is not an easy solution to the UK's fiscal challenges. If used in isolation inflation needs to be painfully high. If used in conjunction with other debt reduction policies inflation can help, but comes at a cost. Accordingly it is only likely to be considered if **growth remains persistently weak in a Japan like scenario, or we see another severe crisis**. Alternatively it could be employed if **the debt burden becomes too high to manage** (empirical evidence suggest that this happens at around 100% of GDP).

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