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UK DEBT IN PERSPECTIVE

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Summary

- National debt figures need perspective. This can come from viewing them as a ratio to national income.
- That ratio has surged in the last 20 years. But despite many assertions, the debt-to-income ratios of the past few years are not unprecedented.
- When the ratio reached such peaks in the past, much concern was expressed. But there was not a panic for immediate action. Problems may indeed follow, but they do not *inevitably* follow.
- The debt can be coped with and there need not be resort to any emergency measures. Historical investigation shows how and why. Control of spending and measures to allow and, if possible, promote steady growth are sufficient.
- Inflation is a danger, but honest government and good sense can work.

Introduction

The UK debt/income ratio is currently around 100 per cent and set to rise further. But this has happened before. To put these current figures in perspective, and to understand the long history of discussion of UK national debt, we look at the experience not just over the fifteen years since the last crisis, but over the past 270 years. During those years, British government debt has been discussed by economists, mathematicians and philosophers.

The industrial revolution in Britain is usually dated from around the middle of the eighteenth century. It is worth bearing in mind though that the rate of growth of GDP was barely 1 per cent before the nineteenth century. The debt/income ratio at the beginning of the industrial revolution was 100 per cent. In the period from the middle of the eighteenth century until well into the second half of the twentieth century – the period often referred to as ‘modern economic growth’ and the tail-end of which from 1950 to 1973 is usually referred to as ‘the golden era’ – the debt/income ratio was above 100 per cent over 75 per cent of the time. In each of 165 years of the 217 years between 1748 and 1965 it was 100 per cent or more (on occasions reaching above 250 per cent).

This is worth emphasising: most of the time between the beginning of the industrial revolution and the present, the debt/income ratio has been 100 per cent or more, and that in a period when our living standards have been transformed for the better.

The debt surges

In that period there have been three similar, but far from identical, episodes when vast new spending needs arose. All were during and immediately after major wars. The first occasion was the Revolutionary/Napoleonic Wars of the late eighteenth/early nineteenth centuries, when spending resulted in a debt-to-income ratio of more than 200 per cent. There was a similar expansion in World War I and again during World War II, when spending rose dramatically once more. Debt followed and the debt-to-income ratio reached about 250 per cent at its peak in 1947.

In contrast to historical episodes when other countries faced large debt overhangs as a result of wars and collapsing tax revenue, in Britain tax revenues increased during the wars. But taxation alone did not produce sufficient sums. Borrowing had to be relied on. Britain had certain advantages here. It had been at war most of the time between the 1680s and the late eighteenth century. In that period, it built a reputation for probity in peacetime and the servicing of debt acquired in wartime. When it came to these three major wars, it had no difficulty borrowing both domestically and abroad. Hence the high debt-to-income ratios.

Why worry?

Throughout most of the period there were two concerns. One was that a large national debt burdens the nation in the future; and the second that a large national debt is risky because should an adverse shock hit the economy it will be more difficult to borrow, desirable as borrowing might be at that time.

The discussion is over two centuries old. The modern discussion was initiated by James Buchanan (1958) and gave rise to a debate in the *Journal of Political Economy*, in which the leading protagonists included E. J. Mishan (1963), as well as Buchanan (1964).

The classical function of budget policy is to change the pattern of resource allocation that the market has produced. That is well exemplified by moving an economy from its peacetime operations to the fighting of a war. Britain's wars against France (in the 18th and 19th centuries) provide a clear example. How is the transfer to be paid for?

Payment can come from taxation or from borrowing. The method by which the resources are raised can affect from where the resources come. If resources come purely from private saving, then there is no cost in current consumption; the effect on future consumption depends purely on the rate of return on the government spending as compared with the rate of return that would have been achieved by privately invested savings. Whether, then, the future is burdened depends on the source of funds the private sector draws on, and how growth is affected.

While that may seem obvious, it still has to be clarified. Does the servicing of debt lead to taxation that damages output, or to inflation (that also damages output)? The taxation debate is as old as the burden debate, and from the very beginning featured many of the same protagonists.[1] Some early contributions are worth examining.

The origins of the British national debt lie with the 1688 Revolution and the ensuing hostilities with the France of Louis XIV. It was not possible to impose taxes to defend the newly acquired liberties against the encroachments of a foreign power. To quote McCulloch (1845 and subsequent editions), '...the contraction of debt was not then a matter of choice but necessity; and to it we are in great measure indebted for our liberties'. But McCulloch goes on, '...the practice of funding was found to be so very convenient a means of obtaining supplies that it has since been resorted to on all occasions whether it were really required or not. And hence the rapid growth and vast magnitude of the debt' (ibid.: 421).

The reasons for concern about the level of debt and the costs of servicing it were economic, certainly, but also social and political. The best-known contributors to this discussion are Hume, Smith and Ricardo – that great trinity.

David Hume (1752: 282-286) pointed to the injurious effects of rising taxation on growth. Further, he foresaw a society where economic power was concentrated in the hands of bondholders, with no middle class, and heading for political instability: 'Adieu to all ideas of nobility, gentry, and family'. He was also concerned that debt issue increased the ever-present danger of profligate government. 'It is very tempting to a minister to employ such an expedient, as it enables him to make a great figure during his administration, without overburdening the people with taxes, or exciting any immediate clamours against himself'.

Adam Smith's concerns (1776, Book V) overlap with these. Deficit financing, he feared, would divert resources from productive investment. Moreover, if the government relied on taxation rather than debt, its spending propensity might be curtailed, and wars would be less easily embarked on and more speedily ended. Smith also attacked the notion that paying by taxation the interest on internally held debt was merely a transfer from one hand to the other. Rising taxation would, he maintained, lead to a decline in investment, to emigration, and to capital flight. David Ricardo's (1817) criticisms were similar. He feared the distorting effects on resource allocation of high taxation, and how the diversion of resources that such taxes produced would damage economic performance.

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1 The inflation debate came later, and is considered later in this paper.

Thus, the firmly held classical view was that a national debt was undesirable. It was a burden, as has been argued in modern times and on the same grounds by, for example, James Buchanan (1958; 1964). But this does not mean that debt should never be incurred, and that, if incurred, it should be repaid as soon as possible. The decision depends on the available alternatives and on whether sharing a burden with future generations seems justified by those future generations benefiting.

In the classical view, debt can be incurred to finance a response to an emergency – these classical authors had war in mind – but once the emergency was over government expenditure should be cut back to the pre-emergency level, and the debt gradually reduced through taxation on what was expected to be a steadily growing income. This conclusion of course embraced the insurance principle, as that simply provided an additional reason for what was in any case recommended. These principles can guide policy only so long as the debt is sustainable, so long as it does not feed on itself and inevitably outgrow the economy supporting it. When does that benign outcome emerge?

What is debt sustainability?

How might a debt/income ratio be sustainable? For that to hold the cost to government of debt servicing is usually simply compared to the rate of growth of the economy. If the cost exceeds the economy's growth rate, debt service eats up more and more of income. But what rate of interest should be used? Is it best captured by the yield on government debt? Imagine a period of zero inflation and the government issues £100 million in bonds with a coupon of 3 per cent. The cost of servicing that £100 million of debt is £3 million per annum. That does not vary over the course of the life of the bonds, say 30 years, irrespective of what happens to prices or yields. So, at the end of year 1, government needs to borrow £3 million to pay bondholders. (And that £3 million of course is added to the stock of debt.) If interest rates have risen, then the cost of servicing the debt that year rises. Over the course of the loan a series on the appropriate interest rates is required. The cost of borrowing is likely to vary, possibly quite substantially. It is not an easy calculation.

If at some point the cost is regarded as too high there is the possibility of lowering it by means of a conversion to a lower coupon. For example, in World War I, one stock issued was War Loan at 5 per cent, £2,500 million, equal in size to approximately 25 per cent of the total debt, and equal in value to about half of GDP. In the 1920s, the cost of servicing was heavy and a conversion operation was carried out reducing the coupon to 3.5 per cent and extending the duration. To achieve a successful conversion requires some favourable circumstances and possibly some incentives for the holders (Capie, Mills and Wood 1986).

Towards the end of the Thatcher era, when the global economy was still adjusting to the restrictive monetary policy measures needed to tame the Great Inflation of the 1970s, it seemed reasonable to assume that interest rates exceeded the economy's growth rate. But the UK (and global) economy is no longer in such a counter-inflationary environment, nor are there high nominal and real interest rates. Olivier Blanchard (2019: 1219) recently observed in his American Economic Association (AEA) Presidential Address that 'not only are today's interest rates low, they are lower than growth rates'. Blanchard (1991) had previously acknowledged the possibility that the interest rate on public debt could fall below the growth rate of the economy, in which case 'the government could run permanent primary deficits … and these would eventually lead to a positive but constant debt level'. While flirting with this possibility, in this earlier paper Blanchard still fell back on the general presumption that the interest rate on government debt exceeds the growth rate - that situation, he wrote, 'prevails generally' (ibid.: 15).

However, it might be that the 1980s and 1990s, when the nominal interest rate indeed exceeded the growth rate, are an historical aberration. During a good part of the post-war period the nominal growth rate of the UK economy was consistently above the average interest rate on government debt - this was the case until the 1980s.

It can be argued that a lower public debt stock should be sought to provide 'insurance' in case another shock emerges. But experience with lowering or even stabilising public debt stocks in recent decades illustrates the possibility of problems with implementing this. Further, it should not be forgotten that raising taxes to pay interest on debt can act as a disincentive to work and to private sector investment.[2]

2 This was a concern of some classical authors, as it was more recently with James Buchanan (op. cit.) among others.

Previous efforts

Nevertheless, the burden of the debt after all of these wars was extremely heavy. How could it be reduced? There were really only two viable ways. One was from economic growth and the other was from inflating the debt away. Strictly speaking there were two additional options. One was simply to default. But that was anathema to the governments of the time, and in any case would have damaged or even destroyed future borrowing options. A fourth option would have been strict spending rules and the further raising of taxes. In the climate of the times these were unacceptable. Following the Napoleonic Wars, there were demands for smaller government. But after World War I, the pressure was for spending, particularly on housing for returning servicemen. And after World War II, a newly elected Labour government came to office on the promise of big spending that included extensive nationalisation. Thus, the two serious options were growth or inflation.

After the Napoleonic Wars, there were also demands for greater probity in the affairs of the state and a return to the gold standard that had been abandoned in the early years of the war. As that was aimed for and achieved, inflation was ruled out, leaving only growth alongside modest primary surpluses. Similarly, after World War I the gold standard that had been suspended on the outbreak of war in 1914 had to be restored and in 1925 it was, albeit in slightly different form. Again, there was no inflation. Following World War II, there were the large spending plans of the new Labour government. There was also a much looser association with a metallic base for the currency and the possibility for inflation certainly existed, and some inflation appeared.

Interestingly, in all three cases the rate of economic growth following the peak point in the debt-to-income ratio was strong and the ratio slowly declined. Only in the last of the three did inflation play some part, as did an increasingly heavy tax burden to pay for an increasing role of the state, a tax burden that continued for many years.

It is clear that approaches to reducing the debt-to-income ratio have differed from episode to episode. However, managing the debt overhang has typically been constrained by the overall policy framework – in particular, the money supply regime and the nature of the state.

The importance of the money supply regime has already been implied. With a fractional reserve banking system, the money supply can change according to the reserve-holding behaviour of banks. But the only source of *sustained* money supply change is a sustained change in the liquid reserves of banks – the monetary base, as it is known in many countries. The major study of this was Phillip Cagan's (1965) for the USA, but similar results appear for other countries. Hence, so long as the growth of the so-called monetary base was constrained, the growth of broader measures of the money supply was in the longer term constrained, and so too was inflation. If the monetary base comprised gold (the gold standard) or some other metal (silver for example, or even a bimetallic standard) then the base could grow only to the extent that the supply of the metal or metals did. Of course, the question of what kept countries on that gold standard must arise, but it is useful also to consider - for the underlying questions are the same - what keeps countries to any low inflation commitment.

Britain could have left the gold standard after the Napoleonic Wars, but instead of perpetuating the wartime suspension the standard was restored (in 1821). Again, Britain could have perpetuated the suspension of World War I, but instead resumed gold (in 1925), and at the pre-war parity, until finally forced off in the turmoil of the Great Depression in the USA.

Why did Britain stay on gold? Partly there was simply a feeling that being on the gold standard was natural, that there was nothing else that could be done. But it was also well established that stable prices were morally desirable and also good for prosperity and growth. Then, too, it was well established that if a country in effect repudiated its debts by debasing the currency it would be unable to borrow, or at the least experience great difficulty in borrowing, at future times of stress. And Montagu Norman made this among other arguments when he urged Britain not only to return to gold after World War I, but to do so at the old parity.

Thus, governments were reluctant to use rapid inflation to reduce the debt-to-income ratio. It makes future borrowing more difficult. Today's monetary framework - including a clear inflation target - provides some policy freedom not previously available. But it does not allow an excessive reliance on inflation. Such a credible monetary framework can help contain future borrowing costs.

There are many other factors aside from the level of debt that can lead to or allow inflation. Important among them is, quite simply, the ability to make mistakes. There can also be one-off shocks to the price level that are allowed to turn into inflation through a reluctance temporarily to squeeze the economy – that might be a mistake, or a conscious and perhaps well-informed decision about trade-offs.

In other words, many things can lead to governments allowing inflation. But choosing to inflate deliberately, as a way to reduce the debt-to-income ratio, involves a neglect of the future. This is what Pigou (1920) referred to as a 'defective telescopic faculty'. That applies whether keeping to a metallic standard or adhering to a rule or to an inflation target. All are self-imposed constraints.

Accordingly, then, without exception such deliberate inflation is avoided by states that are secure, with a rule of law and the expectation of a basic level of political stability. In contrast, kleptocracies, unless they are stupid as well as corrupt, must always have an eye on the exit and are not too worried about the country's future. Systematic debasement to reduce the burden of debt does not happen in well-ordered societies. When the Governor of the Bank of England, Andrew Bailey, was asked about the possibility that inflation would surge in Britain as a response to the sharp increase in the debt, he responded that Britain was not Venezuela.[3] That is as neat a summary of the above argument as one can imagine.

3 'Bailey rejects monetary financing as tool in virus crisis', *Financial Times*, 6 April (https://www.ft.com/content/e7fa6ac4-c2a0-4c6c-b1e1-17ab91316915).

Sources of inflation and the role of honest government

There is, nonetheless, the widespread fear that growing deficits in Britain and other countries affected by Covid-19 run the danger of being monetised, producing rapid monetary expansion and inevitable inflation. It is true that all the very rapid inflations and hyperinflations of the last few hundred years have followed ballooning deficits. There are many examples in the twentieth century, when technology made it easy to print money. But there are also examples from earlier times. The American War of Independence in the 1780s was one, and the French Revolution of the 1790s was another. The extreme cases of hyperinflation came in the twentieth century (with improved note-printing technology) and can be found in Hungary, Russia, Poland, Austria and Germany in the few years after World War I. The general story that is told is of governments seeking finance first raising taxes. But when a limit is reached on raising revenue from taxes they turn to borrowing. When the cost of borrowing becomes too high, they turn to the printing press.

Given that very rapid inflation has always appeared in a period of monetary expansion following or contemporaneous with growing budget deficits, the question arises what circumstances produced the latter? Grave social unrest or actual disorder provokes large-scale spending by the established authority in an attempt either to suppress or placate the rebellious element. At the same time the division in society results in a sharp fall in revenue. As Keynes (1923: 41) put it, inflation 'is the form of taxation which the public find hardest to evade and even the weakest government can enforce when it can enforce nothing else'.

But does inflation *inevitably* flow from a burst of growing deficits and the accompanying rise in the stock of debt outstanding? The answer to that question is ‘most certainly not’. Why does inflation sometimes follow and sometimes not? Some historical experience gives guidance. Britain, during the Revolutionary Wars and Napoleonic Wars with France in the late eighteenth and early nineteenth centuries, abandoned the gold standard for over 20 years. Deficits grew and the stock of debt rose until it stood at around 250 per cent of GDP. The note issue rose, monetary expansion did take place and there was a little inflation – around 3 per cent per annum. But Britain had acquired a reputation for servicing its debts in the many wars across the eighteenth century. Even so, the debt/income ratio at the outbreak of the wars in the 1790s was around 150 per cent. But leaving gold in 1797 was seen as being temporary. The commitment to return to the standard as soon as practicable was credible and no worrying inflation followed.

That can be contrasted with France, where the issue of paper money in the 1790s was on a colossal scale and there was no belief that it would be reversed. Inflation in the thousands of per cent per annum followed, and the French reputation, destroyed during John Law’s monetary experiments a century earlier, was again destroyed and France suffered for a long time afterwards.

Britain experienced further *strengthening* in the credibility of government. The most general explanation for the changes has its origins in the great reaction against the ‘Old Corruption’ of the eighteenth-century mercantilist state. (See the work of historians Harling, Rubinstein, and Howe). The all-pervasive feature of British government from the early eighteenth century until the age of reform in the nineteenth century was the widespread use of sinecures, and gratuitous payments to people the government wished to bribe or buy or otherwise reward. The consequences of state expansion, which is what mercantilism constituted, were corruption, rent seeking, tax evasion (notably smuggling in England) and other illegal activities. There were dangers then for the fiscal base. The beginnings of the dismantling of mercantilism meant that much of the old had gone by the end of the eighteenth century but much persisted into the nineteenth. Large government had to go. There was by 1850 small government, sound money and a permanent civil service chosen by competitive examination. And the aim in the period was to remove all vested interest from the legislative process. As Donald Winch (2002: 8) expressed it, ‘What began as opposition to mercantilism ... left political economy with a continuing interest in exposing those special interests seeking legislative privileges at the expense of a concept of the public interest...’.

Trust in the system and within the system had an important role to play. Modern money, as opposed to commodity money, rests on trust. From where does that trust come? The legitimacy of the state is a reflection of the confidence or the trust that the populace has in it. In a study of the politics of taxation, Daunton (2001) argued that the necessary trust in Britain in the early nineteenth century rested on the success of governments replacing the 'Old Corruption' with a fiscal constitution that emphasised probity in collection and expenditure, with full accountability and transparency.

We do not wish to downplay the seriousness of the scale of the debt. Clearly steps should be taken by government to curb spending and behave extra prudently. Our central point is that large-scale debt is far from unknown in our economic experience. And it would be misguided and futile to jump to tax-raising measures. The debt can be coped with and the best way of doing that is to encourage economic growth. We would suggest that this would be best achieved in the first instance by removing swathes of unnecessary regulation and simplifying taxes.

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