House of Lords Economic Affairs Committee

Debt Sustainability

Written evidence from Professor David Miles,

Budget Responsibility Committee of the Office for Budget Responsibility

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I offer thoughts on debt sustainability issues in addition to those of my OBR colleagues Richard Hughes and Tom Josephs who gave oral evidence on January 23rd, a session which I was unfortunately unable to attend. I have tried not to repeat things said at that session.

1. The long run sustainability problem:

The OBR estimates of the trajectory of debt relative to GDP, assuming unchanged policies on tax and that public services and welfare payments evolve in line with a plausible estimate of demand, illustrate the high likelihood that without changes the fiscal situation will become unsustainable. Fifty years ahead the debt to GDP ratio could have tripled and be rising at an ever-increasing rate so that debt repayments would likely become unaffordable. While much improved productivity growth than has been seen over the past twenty years – if sustained over decades – could prevent ever increasing debt to GDP ratios, it would be a risky strategy to rely on that happening; past evidence suggests that government policies to bring it about cannot be relied upon to transform the fiscal outlook. In their absence the balance between taxation and spending does not look as if it can continue as it is.

To a large extent, the deterioration in the longer-run fiscal outlook over the past twenty years reflects the large decline in the levels of income generated in the UK (GDP) relative to what had seemed likely. Before the global financial crisis the UK seemed to be on a growth trajectory that would have taken its GDP to a level of around 25% above where it now is. But expectations about the provision of public services and of welfare support has not adjusted downwards to the same extent – perhaps even at all. The debt to GDP ratio in the UK has risen from under 40% twenty years ago to around 100% today. It is likely to rise further over the next few years before stabilising and then falling marginally five years ahead. But looking further ahead if the provision of public services and of welfare support at today's levels evolves in line with rising demand, while the tax system remains as it is, debt is highly likely to begin to rise in a sustained way relative to national incomes.

Something needs to change.

2. The tax burden

Tax relative to GDP has been on an upward trajectory for several years and looks likely to reach a near 80 year high of close to 40% of GDP a few years ahead. If all the longer-run adjustments that are needed to maintain fiscal sustainability come on the tax side then tax revenues relative to total incomes are likely to need to rise further. The distortions that such continued tax rises generate are likely to become substantial. That is because a rising tax take, with tax *rates* rising within a broadly unchanged *structure* of taxation, would mean that distortions would plausibly rise at increasing rates.

Such distortions are more likely to rise with the square of tax rates rather than with its level[1]. That would mean that whatever damage is done to incentives to work, save, invest and innovate by a rise in overall tax rates from 35% to 40% would be about 15% greater than a rise from 30% to 35%. A rise from 40% to 45% would bring costs that are 13% greater than that again. (So the 40% to 45% rise generates damage that is about 30% greater than the cost of the 30% to 35% rise). Put another way a rise in tax rates from 30% of GDP to 45% generates tax distortions that rise by much than the 50% in the tax rate; such distortions would more than double.

Such damage might be offset if the overall structure of taxation, and not just tax rates within an unchanging structure, can be improved so as to reduce distortions. But it is unlikely that there can be an ever-improving set of structural changes in the tax system that can keep up with the exponentially rising costs of increasing tax rates.

There is little comfort to be taken from the fact that many other high income countries – France, the US and most other G7 countries – have also seen debt rise greatly in recent years to levels comparable of that in the UK, and also face rising pressure on spending because of demographic shifts. Being in the same boat as others does not help you if it is sitting low in the water as the waves ahead are becoming larger. Indeed, the fact that government debt has risen sharply internationally means that issuance of government bonds across the world to finance ongoing deficits and to replace maturing debt looks set to be high in the future and that is not helpful to the UK with a great deal of gilts to issue for years to come.

3. The funding cost of government debt

The funding of the existing stock of UK government debt has already become a substantially greater burden. This reflects not just a much higher stock of UK government debt relative to GDP than in the past but also a recent substantial rise in the real interest rate on that debt. The balance between the real interest rate on debt (denoted r) and the growth of GDP (which is the rise in the aggregate tax base from which to raise revenue, denoted g) is a key determinant of fiscal sustainability. The difference between r and g reflects how great a primary fiscal surplus or deficit can be so as to maintain a given debt to GDP ratio. If the debt to GDP ratio (D/GDP) is close to 100%, which it is in the UK, r-g is the primary balance consistent with unchanged D/GDP. A few years ago the real interest rate at which the UK government could raise new debt (reflected in yields on index linked bonds of 10 years to 20 years maturity) was around -1.5%. If growth in GDP was around +1.5% it meant that a deficit of 3% of GDP could be maintained without the debt to GDP ratio rising. But now (January 2024) 10 to 20 year yields on indexed linked debt suggest the required real interest rate is over +1%. And it should be adjusted up by around a further 1% because growth in the prices of UK output (the GDP deflator) is likely to be below RPI inflation on which indexed linked real yields are based. So the likely rate of r-g today is now positive and perhaps around +1% rather than the -3% of a

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[1] The proposition that tax distortions rise with the square of the tax rate, and so increase faster than if they were just proportional to the level of tax rates, is a standard result in the economics of taxation. It dates back at least to the work of Arnold Harberger in the 1950s. Since then, estimates of so called Harberger triangles, a measure of the cost of tax distortions, has been standard in tax analysis. Those triangles of welfare losses rise in line with the tax rate squared and so rise exponentially with taxation and not linearly.
For a review of the use of Harberger's techniques see "The Research Contributions of Arnold Harberger" by James Hine in *Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association, 2001, vol 94, pages 1-8.*

few years ago. If that is how things remain a primary surplus of around 1% of GDP – nearly £30 billion at today's prices – would be needed to prevent debt rising further.

Real interest rates on UK government debt could of course fall back. But they could also rise further. There is one factor that may add upward pressure to gilt yields. This is the likely sustained decline in the size of Defined Benefit (DB) pension funds which in recent decades have switched rising portfolios of assets increasingly into bonds and substantially into gilts. That portfolio switch generated a large and sustained period of net purchases of gilts. It has now largely run its course and in the future company pension scheme stocks of assets will be declining as DB schemes are already overwhelmingly closed and will increasingly be in run off.

4. Reaching fiscal sustainability

In the light of these forces it is likely that the path to a more sustainable fiscal stance will be one on which some combination of three factors are at play: faster growth in productivity; a more favourable trajectory for labour supply so that participation and/or average hours worked rises more than in recent years; a fall in the rate of growth of government spending so that it rises less fast than demand for public services and for welfare payments and does not increase consistently in excess of GDP.

More rapidly rising productivity is the almost pain free route to fiscal sustainability. And a sustained return to the sorts of growth in productivity seen in the UK in the thirty years before the financial crisis would go a long way to return the debt to GDP ratio to a flat trajectory. If productivity growth over the next five years were to be 1% higher than the OBR central forecast – and so close to pre financial crisis levels – the stock of debt relative to GDP could be £150 billion lower and the debt to GDP ratio over 5% lower and falling steadily. But if productivity growth is barely positive over the next five years debt would around £200 billion higher, some 7% of GDP, than the OBR central forecast of November 2023.

It is also hard to see what government policies would reliably put the UK on a faster productivity path. Higher public sector investment might boost growth for a while but only if returns on that investment are strong. Higher public spending to accelerate the path to net zero would be a source of greater public sector capital investment but it should probably seen as a means to produce GDP in a less environmentally damaging way rather than a way of producing more GDP. And many large-scale public sector infrastructure projects seem to run into cost overruns and delivery lags; HS2 is a case in point.

Faster growth in the labour supply would boost GDP growth. A greater supply of labour from the population in the UK, particularly if it reflected fewer people not participating because of health issues and fewer people under-employed (or not employed at all), is fiscally highly advantageous. Not only do these sorts of rising employment generate more incomes and tax revenues they can also reduce the welfare payments bill.

It is much less clear that persistently high levels of net immigration to boost the labour force can generate sustained fiscal improvements. New immigrants, particularly if they come on work visas, may generate a favourable balance of extra tax revenue relative to extra public spending for some years. But immigrants who stay grow older and have children so the favourable tax to spending balance does not persist. And even when the favourable fiscal effects persist, they may do so largely because government spending on public services (particularly on health and education) falls in per capita terms and the quality of those services is eroded as population rises.

In contrast welfare reform that generates a rise in labour supply and a smaller benefits bill is likely to be unambiguously beneficial and fiscally very helpful if as well as boosting labour incomes it allows those who would benefit from being in employment to find paid work. Those benefits may be particularly great for those who have mental health issues, a group whose numbers have grown greatly in recent years and largely amongst the young for whom finding jobs may create long lasting gains in wellbeing.