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THE END OF AUSTERITY?

Pre Autumn Statement Briefing

A Policy Exchange Commentary

Policy Exchange

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Executive Summary

What are the Fiscal Consequences of Brexit?

- The extent to which the British economy ever experienced austerity is debatable, and most evidence suggests that the British economy started this year at near full capacity. The last Government's strategy of restraint in discretionary fiscal policy, monetary activism and allowing the automatic stabilisers to operate can claim to have helped deliver the second highest growth in the G7 and unemployment near historic lows.
- Overall, the economic data that has come out since June has been reasonably positive, surprising many on the upside. So far, there is little evidence of an increase in economic spare capacity and Britain looks unlikely to experience a technical recession.
- However, significant uncertainty remains over the short to medium term prospects for the economy: the final supply side impact is unlikely to be clear for decades, depreciation in sterling could have both positive and negative knock on effects, and we do not yet have clear data on business investment. This comes on top of the already significant pre-Brexit uncertainty over the UK's sustainable trend rate of growth and the causes of the 'productivity puzzle.'
- Current growth forecasts suggest that the Government is unlikely to achieve a surplus by 2020 without changed policy, while there are likely to be significant additional demands for resources for the NHS, welfare and to enable a post Brexit agenda.
- Given the significant uncertainty from both Brexit and the wider international situation, the Government should seek to maintain maximum flexibility in the very short term. That said, at present there is little case for a major fiscal loosening of policy, with the recent depreciation already leading to significant inflationary pressures. The Government should continue with the long term plan to reduce unsustainable levels of public spending and debt.
- Given the current stability of the economy, there is no need for dramatic policy interventions and the Chancellor should be unafraid to deliver a steady-as-it-goes Autumn Statement. Further actions can be saved for the Budget, if not later.

What should the Government's fiscal target be?

- The new Government has announced that it is no longer committed to delivering a balanced budget by 2020, although they still regard this is as ideal in the medium term. We are clearly in spirit in 'non-normal' times; therefore, it is probably reasonable to avoid setting an explicit deadline and it would be unwise to try and chase any disappointment in tax revenues.

- Overall, however, UK debt remains high, and aiming for a balanced budget in the medium term is likely necessary because of the continued occurrence of unexpected shocks, lower inflation than in the post war years, and continued optimism bias in the public forecasts. In the meanwhile, the Government should give greater guidance over its long term aspiration for the public finances. One way to do this would be to set an explicit target for the stock of debt in the long term - for example, for debt to fall back to 60% of GDP by 2040.

- As important as debt and the deficit is the long term sustainability of government spending. Unless the long term trend towards greater welfare and health spending can be turned around, the size of the state is likely to reach 45-50% of GDP in the next decades, creating both a substantial increase in the tax burden and slowing growth, and significantly hurting real disposable incomes. While most people assume that this increase is an unavoidable result of an ageing population, an expensive triple lock is pushing up future pension costs more than ageing, and just 0.2% of the 4.5% annual increase in per capita health costs is due to demographics.

- In the short term, the Government should not allow Brexit to distract it from the long term need to deliver a more sustainable Government and create a simpler, more efficient tax system. One of the Coalition's most impressive achievements, was that after thirteen years of stagnation, public sector productivity finally started to improve between 2010 and 2013. There are good reasons to be optimistic about the potential for future productivity improvements, but this will not happen if the Government loses focus now:

- The Government should become much more systematic about continuing to drive and monitor improvements in efficiency, placing the Public Sector Efficiency Group on a permanent basis.
- Individual departments to set out their own efficiency statistics in annually updated Single Departmental Plans. The OBR should have the authority to call out departments it believes are falling behind in the transparency agenda just as it pushes back against unrealistic costings.
- Alongside the publication of the review of the State Pension Age, the Government should launch a consultation on a long term replacement for the triple lock.

Do we need to Increase Spending on Infrastructure?

- In the immediate aftermath of Brexit, many politicians and commentators called for a significant increase in spending on infrastructure both to improve long term productivity and to act as a short term stimulus for demand.
- There are many reasons why prima facie an increase in infrastructure appears attractive: the UK has historically invested far less than other OECD countries, business surveys point to the quality of our infrastructure as a major obstacle to competitiveness, historically low interest rates suggest the cost of borrowing is now very low, and infrastructure spending is estimated to have one of the highest multiplier effects.
- In reality, however, the case is significantly more complicated than this. In the short term, the best forms of stimulus are timely, temporary and targeted, while infrastructure is among the least nimble forms of stimulus. Even looking at the long term, the growth impact of infrastructure has often been overstated and theoretical high benefit-cost ratios and low interest rates do not fully take into account opportunity costs.
- Most fundamentally, the barriers to more infrastructure spending are less financial than political and regulatory. While there is a good case for speeding up infrastructure projects which are already ready and can boost the long term productivity of the economy, in practice relatively few

‘shovel ready’ projects are likely to exist. There is no harm in harm in additional spending on infrastructure where genuinely valuable projects can be found – but this is unlikely to represent a step change above current plans.

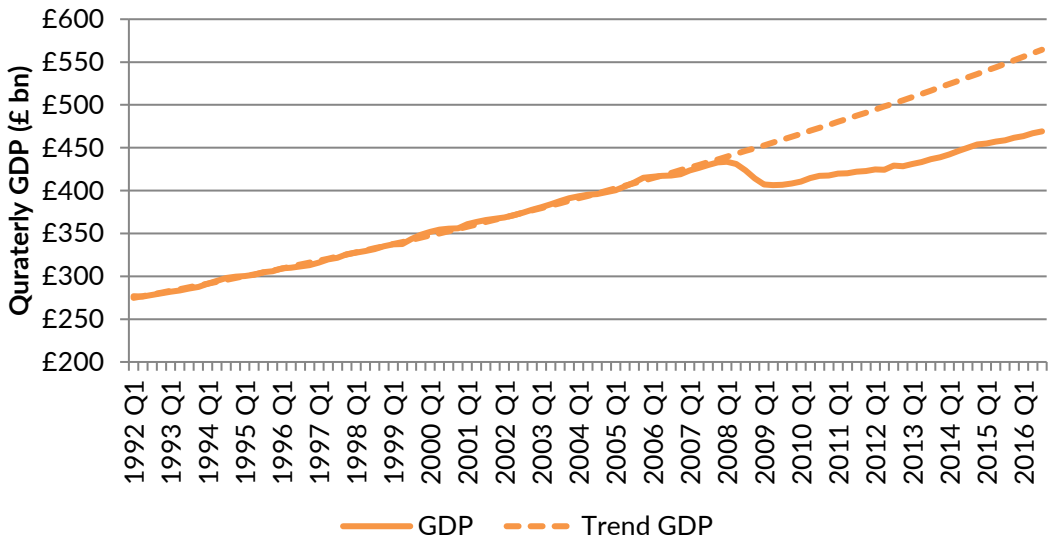
- Given our historically low levels of investment compared to our peers, higher public spending and direct support both of physical infrastructure and intangible R&D might be part of this. Trying to rush this in the short term, however, is likely to lead to significantly wasted resources, is a very inflexible means of stimulus and threatens to undercut more important long-term reforms like the National Infrastructure Commission.

What are the Fiscal Consequences of Brexit?

The Economy Before Brexit

The financial crisis between 2007 and 2009 was the most significant economic shock to hit the UK economy since at least 1931 and the height of the Great Depression. Even today, the economy remains 17% smaller than it would have been if it had continued on the steady growth trend seen during the Great Moderation period of 1992 to 2007. Together with Gordon Brown's 49% real increase in public spending and Alistair Darling's short term fiscal stimulus, this left the UK with a structural hole worth 8% of GDP in the public finances and an overall deficit of 10.1%.[1] Even if the short term recession could have been magicked away, any Government would have had to implement significant cuts to public spending or increases in tax revenues, or see debt rapidly spiral out of control.

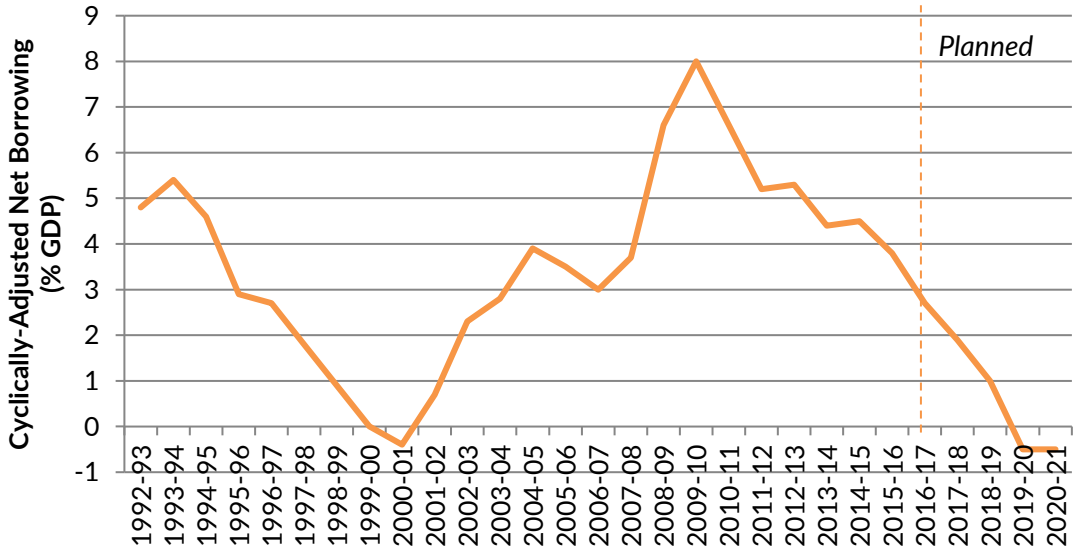
Figure 1: The Post Crisis Hole in GDP (ONS, author calculation)



Under George Osborne, the Treasury followed a relatively consistent strategy to balance out the twin challenges of restoring fiscal sustainability and supporting demand in the wider economy. Over the medium term, the Treasury sought to cut the structural deficit by around 1% of GDP a year and allowed the Darling stimulus to expire, with VAT rates increasing back up from 15 to 20p and public sector net investment falling back to the 2009/10 high of 3.4% of GDP to its 2005 level of 1.8%. This restraint, however, was balanced out by more latitude

elsewhere, with the Treasury proving surprisingly flexible in allowing the automatic stabilisers to operate, and choosing not react to disappointing forecasts instead continually pushing back the date when the budget would be balanced. Finally, responsibility for actively supporting aggregate demand was delegated to the Bank of England and monetary policy.

Figure 2: The Evolution of the Structural Deficit (OBR)



Many commentators worried that this 'austerity' went too far and too fast.

The extent that this strategy actually did represent austerity is debatable. While some areas of the public sector saw significant cuts, large parts of it were protected. Many of the cuts, particularly in local government, came from efficiency savings rather than reductions in quality or output. [2] Government borrowing was allowed to remain at historically high levels for an extended period, with efforts to reduce it proceeding no faster than the IMF's rule of thumb 1% a year, while the Bank of England was given free rein to pursue monetary stimulus.

Most evidence suggests that this combination of monetary activism and gradual fiscal contraction was successful. By 2015, the UK had the second highest growth in the G7[3], most estimates suggested that the level of spare capacity in the economy was 1% of GDP or less,[4] and at 5.1% unemployment was barely above its forty year low of 4.7%.[5] While it is true that growth has disappointed compared to the initial expectations of June 2010, as the OBR's latest Forecast Evaluation Report argues, the most plausible explanation for this is "the

deterioration and subsequent improvement in confidence and credit conditions, largely associated with the sovereign debt crisis in the euro area… [and] the oil-price driven rise in inflation in 2011."[6]

The Consequences of Brexit

How does Brexit change this picture?

In principle, Brexit has an impact over three time scales:

- In the **long term**, Brexit's most significant impact will come through its effect on the supply side of the British economy. Brexit opens the potential for Britain to reform its system of regulation and seek new trade deals, but it also creates the risk of new barriers on trade with Europe and reducing the competitive pressure on the domestic economy. Before the referendum, a majority of studies predicted a negative impact on long term growth, with estimates ranging from a negative net hit of around -8% of GDP (CEP, NIESR and the Treasury) to a positive boost of 4% of GDP (Economists for Brexit).[7] The most negative results, however, assumed that Brexit will be overwhelmingly bad for trade and competition, presuming for example that no new trade deals are struck, that Britain chooses to impose major tariffs on European imports and that leaving the EU largely undoes its past positive impact on productivity and competition. Many of these are endogenous factors, and largely under the control of the political system. Brexit could be used as an opportunity to liberalise the supply side of the economy – in many ways, negative forecasts of the long term effects are simply forecasts of bad policy choices being made.

- In the **medium term**, there will be a modest 'Brexit dividend' from the UK no longer having to make a net contribution to the EU's budget. In 2015, the UK was liable for £18 billion in contributions, although £5 billion of this was immediately rebated and a further £4.5 billion was spent by the EU in Britain, much of which will have to be replaced.[8] On the other hand, some argue that 'hard Brexit' with the immediate imposition of tariffs and non-tariff barriers to trade would act as a negative supply shock, with spill over effects from trade to the economy as a whole. The quantitative impact of this is hard to judge, and in any case, again is largely

endogenous to choices made in the Brexit negotiations about potential transition mechanisms.

- In the **short term**, the main transmission mechanism of Brexit is likely to come through its impact on confidence. Increased uncertainty could see reduced investment in skills and infrastructure, and lead to slower growth down the line. Devaluation in sterling will boost exports in the short term, but has the potential to feed through into higher inflation and lower real incomes, hurting aggregate demand a few years down the line.

Overall, the economic data that has come out since June has been reasonably positive, surprising many forecasters on the upside. Growth has stayed strong at 0.5% in Q3, unemployment remains low at 4.9%, household spending has continued to grow, consumer confidence remains strong and both the FTSE 100 and FTSE 250 remain above their June 24th level. If the UK's output gap was largely closed before the referendum, with the economy running at full capacity, there is little evidence so far of a significant increase in economic slack. Given that consumption makes up the vast majority of demand, as long as households maintain their confidence Britain looks unlikely to experience a technical recession.

On the other hand, probably the most striking change has been an increase in fundamental uncertainty over the future of the British economy.

There are now at least three major unknowns, each of which could significantly change the Government's fiscal prospects:

- The final net supply side effect is unlikely to be clear for decades, and in any case is endogenous to the decisions both the British Government and European Union choose over regulation, trade, tax and immigration. At one extreme, an 8% hit to GDP would be the equivalent of another financial crisis, with similar likely effects on the public finances – albeit played out over much longer time scales, and without the simultaneous shock to demand. On the other, a positive Brexit scenario could actually reduce the pressure on the public finances, offsetting some of the current 1.1% of GDP long term fiscal gap as the population ages in the 2020s.[9]

- The combination of a 20% depreciation in sterling and the Bank of England's loosening of monetary policy is likely to have created a significant stimulatory effect on the domestic economy, boosting

exporters and reducing the trade deficit. If this sustained, it is likely to more than offset any plausible imposition of tariffs, given that the average WTO tariff is 9%.[10] However, the lag before this fully feeds through into the economy is unclear, as is the cost of potential side effects from stimulative domestic monetary policy distorting capital markets and prolonging the endurance of 'zombie' firms.

- Business investment has held up less well than household spending, with the Bank of England's survey indicators suggesting significant uncertainty.[11] However, clear data is unlikely to be available on this to at least the middle of next year, while many businesses are likely to be waiting for more clarity on the expected form of Brexit before making any long term decisions.

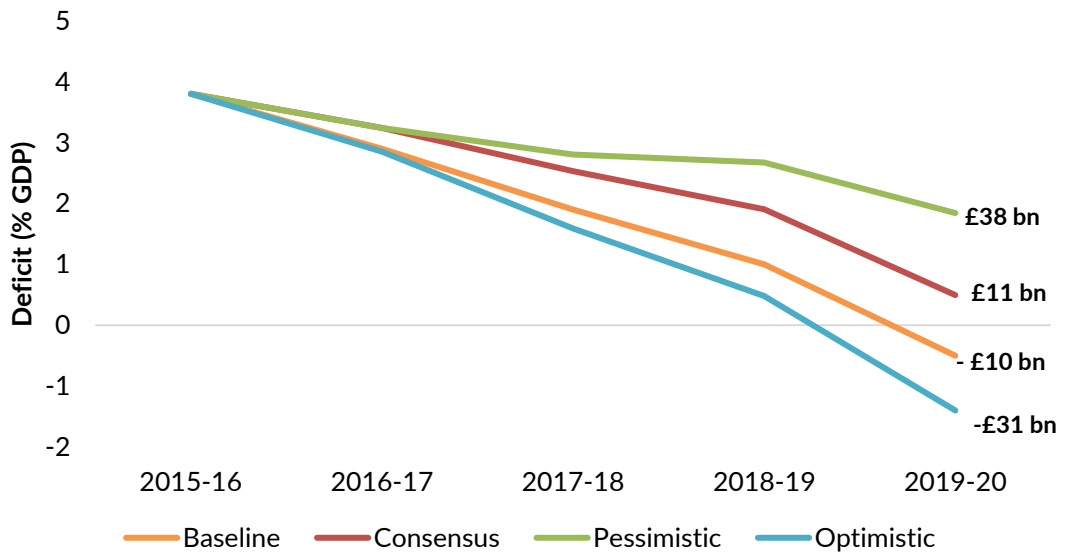
All this comes on top of already high levels of uncertainty over the state of the British economy. There is increasing evidence that trend growth may now be lower than the pre-crisis per capita assumption of 2.2%, while over the last decade productivity has disappointed across advanced economies. Britain has not only failed to catch up with much of the gap in level terms that opened up after the financial crisis, but has seen slower rates of growth as well.[12] There are also some indications that a given amount of growth may be delivering lower amounts of tax revenue as the structure of the economy changes.

Getting more specific, consider four different scenarios for growth and whole economy inflation over the next five years:

1) **Baseline.** The OBR's last pre Brexit forecast in March predicted that growth would stay at or just above 2%, with inflation averaging a touch under.
2) **Consensus**. The latest Treasury average of independent forecasts, imply growth will drop to 1.3% in 2017 before rebounding in the following years, with inflation largely unaffected.
3) **Pessimistic**. In this scenario, real growth falls to 1% from 2017-18 and doesn't recover to 2% until after Brexit is completed in 2020-21.
4) **Optimistic**. Finally, in this scenario, growth continues to surprise on the upside, with more slack in the economy than forecasters had feared – leading to sustained 2.5% growth through the forecast period.

Using the OBR's ready reckoner for the public finances, we can translate these growth forecasts into implications for the deficit.

Figure 3: Short Term Scenarios for the Deficit



Under the plans from the last Budget, the Treasury was at least theoretically targeting a £10 billion surplus by 2019-20. The Consensus growth figures imply that without any policy changes this target will be substantially missed, with a deficit of 0.5% of GDP or £11 billion. Interestingly, this is still substantially less than the Government is currently planning to invest (1.5% of GDP), suggesting that both the previous Coalition and Labour fiscal rules to balance the current budget would have been comfortably met.

On top of this, there are likely to be several demands for additional resources over the next year that the Government will find hard to resist:

- The NHS appears to be struggling to meet the efficiency and spending targets assumed under the Five Year Forward View, implying it will need a further cash top up soon.

- The predicted rise in inflation will increase the pressure for the Government to abandon or ease the current freeze for working-age welfare, and substantially raise the cost of pensions through the triple lock. (On the other hand, the Government will likely offset some of this by not fully updating other tax threshold targets for changes in inflation.)

- The Government will not want to wait to get started on its post Brexit agenda to take advantage of new opportunities, introduce a proper industrial strategy and improve social mobility. Some of this is likely to take additional resources, while any 'Brexit dividend' will not appear to 2019 at the earliest.

What should we make of all this?

While much is still uncertain, three principles should guide the Government's fiscal decisions for the Autumn Statement and the imminent Budget:

- **The Government should seek to maintain maximum flexibility at a time of high uncertainty**. The Chancellor's budget decisions are normally tightly constrained by the pincer of his or her own fiscal rules and the independent OBR's forecasts. Under these circumstances, there is little reason to believe the OBR has any special knowledge over the future of the economy, and its forecasts will be even more speculative than normal. Given this, the Chancellor should hold off on tying his own hands, and wait for more and better economic data.

- **That said, at present there is little case for a significant loosening of fiscal policy**. Given the substantial stimulus already provided by the Bank of England and the current strong performance of the labour market, if anything the risk is that policy is already too loose rather than austere. The Bank of England's latest Inflation Report suggests it is growing wary over inflationary pressures from currency depreciation, and fiscal stimulus would only make this worse.

- **Given wider uncertainty in the international community over the British economy and the implications of Brexit, this is a good time for a steady-as-it-goes Autumn Statement.** It is much easier to loosen policy in the future than to announce new cuts. While many have spoken of 'the end of austerity', under many scenarios, Brexit could make the short term fiscal prospects worse. Given the current stability of the economy, there

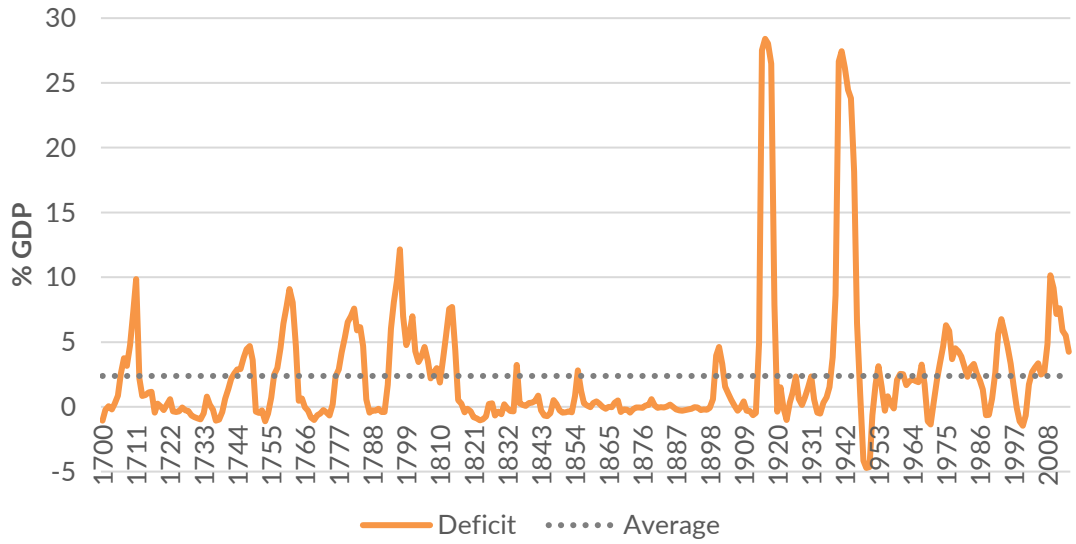
is no need for dramatic policy interventions. The Chancellor should be unafraid to make this Autumn Statement relatively boring, saving the real action, if necessary, for next year's Budget.

What should the Government's fiscal target be?

Balancing the Budget

Eight days after the historic referendum vote on June 23rd, the then Chancellor George Osborne suggested that his central fiscal ambition of a balanced budget was no longer 'realistic.' While by the letter of the rules, the economy may not quite fall below the 1% threshold needed to invalidate the target, in spirit at least, these are clearly 'non-normal' times. The new administration has been clear that they still intend to balance the budget in the medium term, but they are no longer committed to reaching this goal by 2020.

Figure 4: Public Sector Net Borrowing (Bank of England)

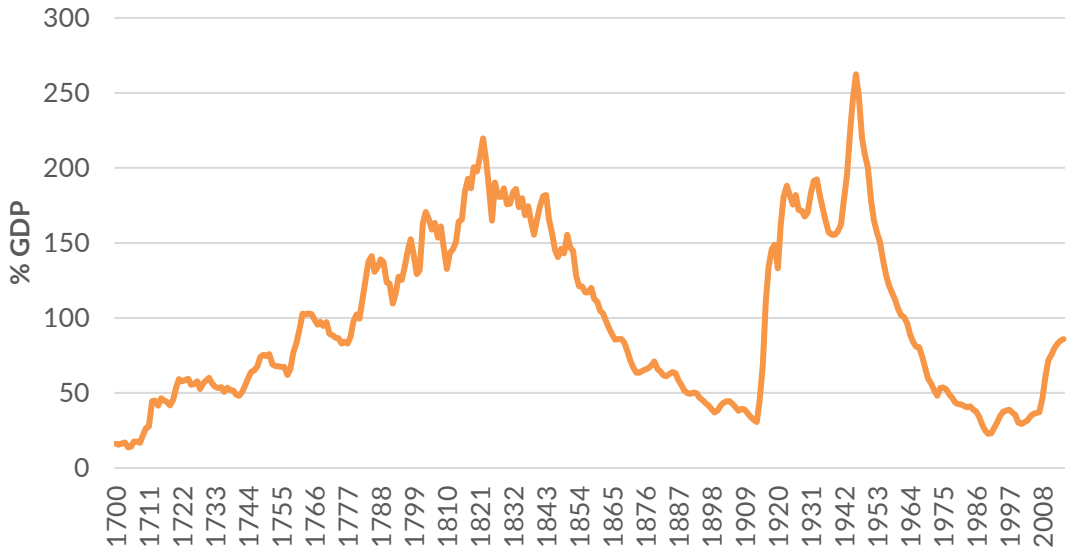


Why does balancing the budget matter?

In the short term, when the economy is already running at full capacity, a high government deficit has the potential to crowd out private saving, leading to lower investment in infrastructure and a worsening trade balance.[13]

Equally important, however, and arguably more applicable in the present economy, is the long term implication of persistent deficits for debt. Taking the very long view, while many make the point that current levels of debt are not particularly high by historical standards, the sharp increase seen after the financial crisis is unprecedented in peacetime and borrowing remains above its long run average.

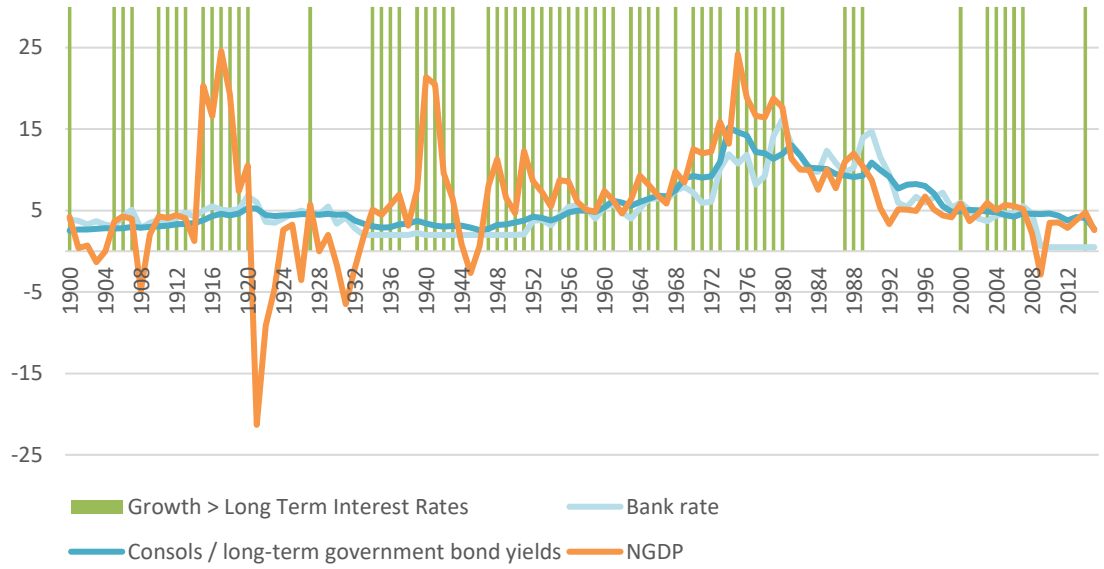
Figure 5: Public Sector Debt (Bank of England)



Ultimately, the sustainability of government debt is determined by the difference between growth rates and the combination of the primary deficit and interest rates paid by the state. In the post war period, with nominal growth rates persistently above interest rates and inflation high, governments found themselves able both to run sustained average deficits of 2% of GDP or so, and to keep paying off debt. In the forty years between 1946 and 1986, nominal growth averaged 9.9% while the deficit was only 1.8%.

Unfortunately, this sweet spot is much less likely to occur in today's low inflation, global savings glut world. Since the financial crisis, growth has fallen more than interest rates in advanced economies,[14] and given interest rates are now constrained by the zero lower bound, this dynamic is unlikely to go away.

Figure 6: Sustainability of Public Sector Debt



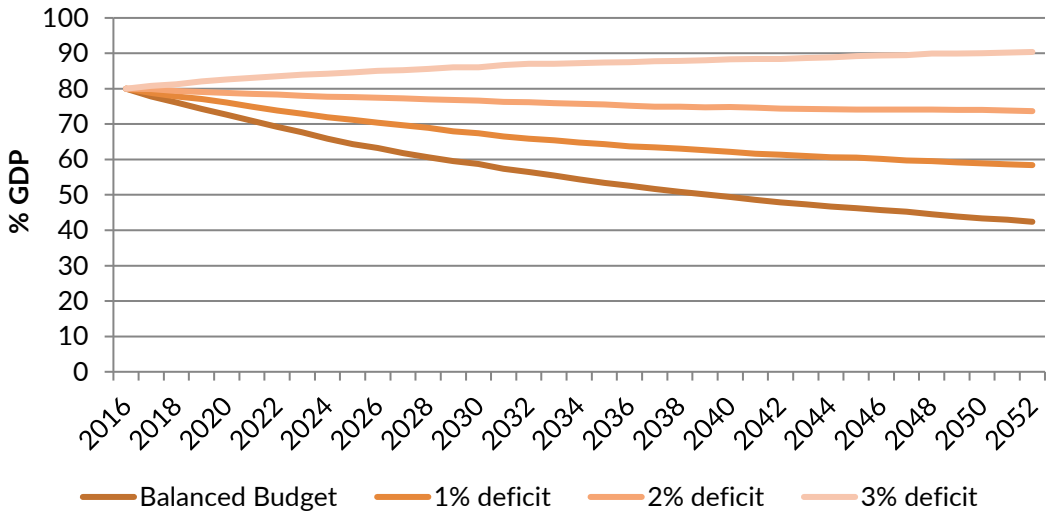
Overall, high levels of debt are likely to hurt growth. Despite the controversy over data errors in Reinhart and Rogoff's infamous 2010 paper and its 90% of GDP threshold for harm, this basic principle has not been debunked, replicated in for example, Kumar and Woo (2010), Cecchetti et al. (2011) and Baum et al. (2013). Overall, the OECD concludes "negative effects of debt start to dominate, of 70 to 90% of GDP for higher-income countries."[15] While lower global interest rates may ease the short term burden from debt, given that UK debt is currently around 80% of GDP, it would be preferable for it be to lower.

On average, the UK experiences a recession every five to ten years, while the last three recessions have been associated with increases in public debt of 12%, 8% and 48% of GDP respectively.[16]

Given that recessions do happen – there is no end to boom and bust, and the economic cycle still exists – how fast do we need to pay down debt in non-recession years to ensure overall debt keeps coming down?

Suppose we assume that the UK is likely to face on average a shock every eight years that increases debt by 10% of GDP. As a stylised model, we can simulate a thousand random runs under four different budget rules, and then look at what the average path for debt is. Under this model, the deficit needs to be roughly 1% or smaller to see significant falls in debt on average.

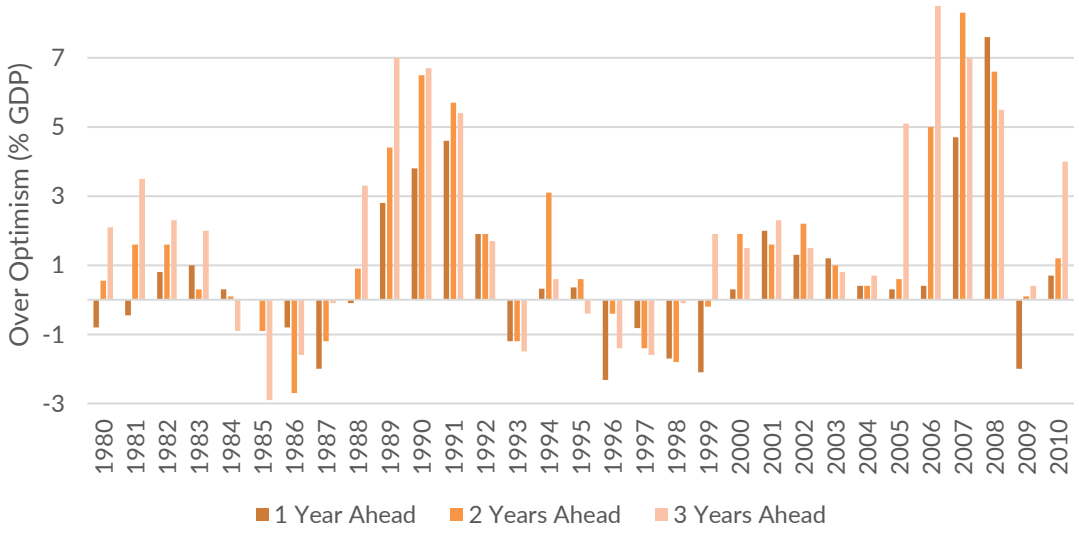
Figure 7: Average Debt under Different Budget Rules



Similarly, the OECD estimates that the UK ought to aim for a debt level of around 75% of GDP by 2040 in order to remain within prudent debt levels (with 75% confidence), and that this will require a primary balance worth 1% of GDP.[17] With interest costs today at 2% of GDP, that is the equivalent of a deficit of around 1% of GDP.

All this assumes, however, that that the Government actually hits this deficit on average outside a recession. In practice, fiscal rules are more honoured in their breach than their observance, while official forecasts for the deficit have a sustained average optimism bias of 0.7% of GDP for 1 year ahead and 2% of GDP looking three years ahead.[18] Given this reality, targeting a balanced budget as a rule of thumb, it is not unreasonable to leave some leeway for the failures of real world politics.

Figure 8: Optimism Bias in Budget Forecasts (OBR, author calculations)

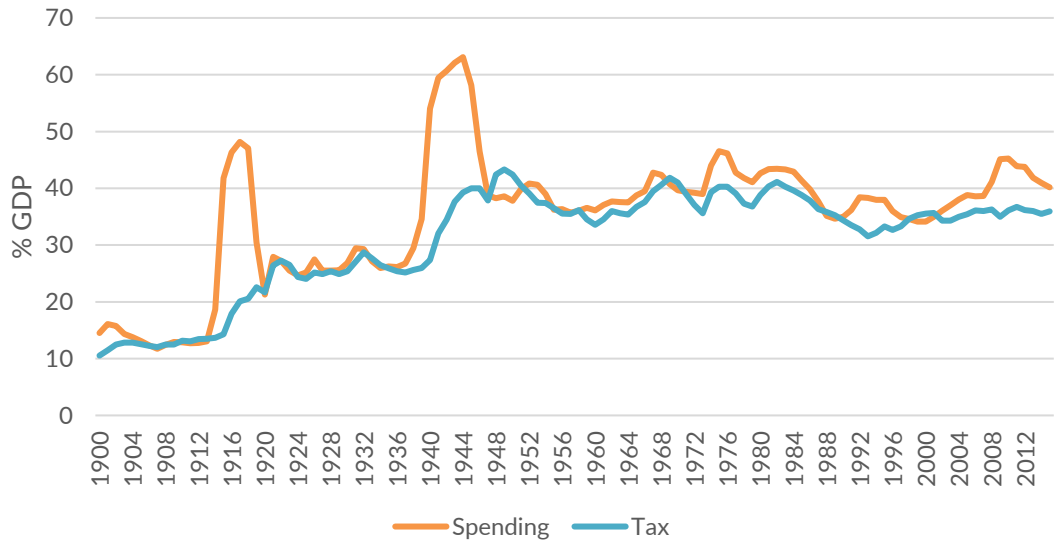


Given the high levels of uncertainty after Brexit and wider international events, the Government should avoid setting an explicit date for returning the budget to balance at the Autumn Statement. However, in order to give a better idea of its long term intentions and assure markets that the deficit will not be allowed to slip forever, the Government should give greater guidance over its long term aspirations for the public finances. **One way to do this would be to set an explicit target for debt in the long term** - for example, for debt to fall back to 60% of GDP by 2040 – and ask the OBR to audit the probability of achieving it given current fiscal plans. While not perfect, this would better proxy what the Government is trying to achieve in the long term, while still allowing significant flexibility for the Government to respond to short term events.

The Size of the State

While the deficit and debt can be important in their own right, what really matters for economic growth and fiscal sustainability is the size of the state.

Figure 9: Government Spending and Taxation (Bank of England)



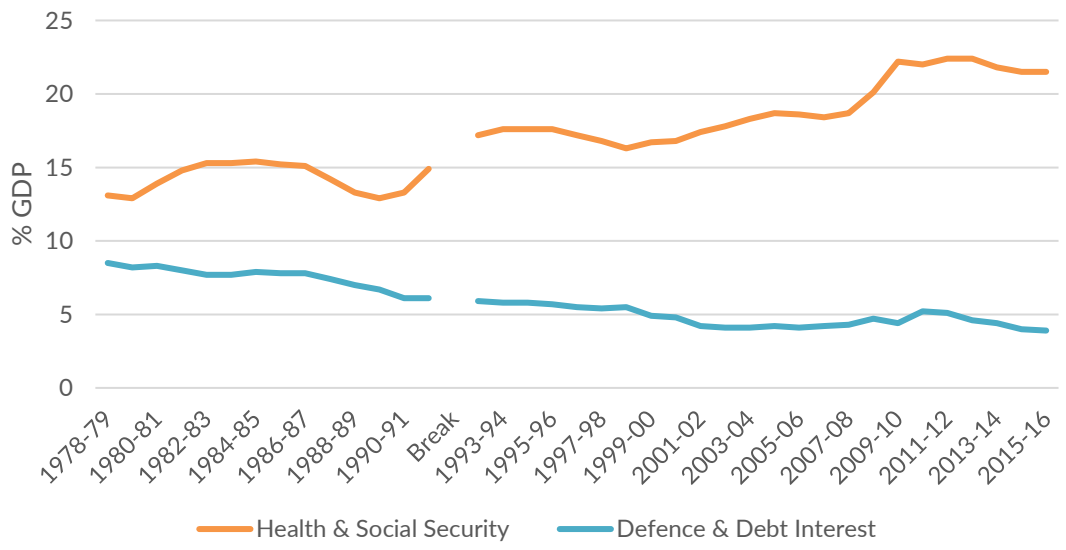
While the difference between a state accounting for 37% or 38% of GDP might seem arcane, every percentage point difference is the equivalent to raising the main rate of income tax or national insurance by five percentage points, or the equivalent of £700 per household. Beyond this static effect and the administrative costs of collecting them, taxes also distort the incentives to work, invest or save, creating significant deadweight costs. Most estimates suggest that the deadweight cost of personal income taxes, for example, is in the order of 20-30%[19], while overall as a rule of thumb every 10% increase in the size of the state reduces growth by 0.5 to 1%.[20]

The damaging effects of tax are further amplified by an overly complex system, with in effect two overlapping taxes on earnings, a lengthy and slightly surreal list of exemptions to VAT, and significant cliff edges in strange places. Both near the top and bottom of income distribution, it is still possible to withdrawal rates above 70% as tax credits and child benefit respectively are tapered away. All in all, the Office for Tax Simplification estimates that 6,102 pages of primary tax legislation in 2011 and as many as 639 numerical tax thresholds in 2012.[21] Despite frequents complaints by tax experts, few governments have to chosen to make long term simplification and reform a priority since Nigel Lawson left the Treasury in 1989.[22]

While the size of the state has fluctuated around 41% of GDP in the post war era, its composition has changed significantly. Over the last thirty years,

combined health and social security spending have increased from around 15% to 21% of the economy, but this has been largely offset by a 4% drop in the cost of defence and debt spending. While the 'peace dividend' looks largely to have run its course – both interest and defence spending are as likely to increase as to fall – a continued sustained increase in welfare state spending at the same pace would see Government reach around 45% of GDP by 2045. That would like require both a substantial increase in the tax burden and slow growth, significantly hurting real disposable income.

Figure 11: The Growing Welfare State (IFS, PESA)

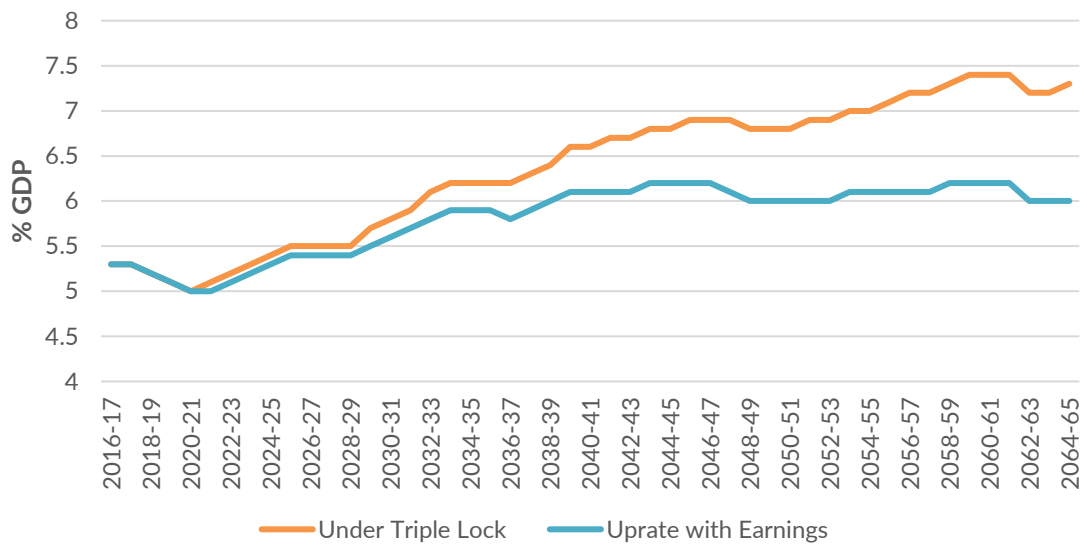


Many people assume that the long term increase in welfare spending is unavoidable, a side effect of an ageing population increasing cost pressures in pensions and health. However, while it is true that the population is ageing, this only explains a small part of increases in spending.

In the pensions system, the OBR estimates an ageing population will add around an extra 1% of GDP to costs over the next fifty years. While real, an even more significant factor is the last Government's 'triple lock' decision to uprate pensions with the higher of earnings, inflation or 2.5%. The OBR estimates that on average this will see pensions grow 0.39% faster than an earnings link, and add an additional 1.3% of GDP to pension costs over the same time frame. The Government has commissioned an independent review of the State Pension Age to report by May 2017, but it makes little sense to consider the fiscal

implications of any change in age going forward without looking at the indexing assumption that goes alongside it. Although we have to be careful about the negative effects higher pensions create for savings, there may be good reasons to redistribute more the working aged to pensioners, and in particular the less well off. However, if that is the aim of Government policy, it would be better to do it openly.

Figure 12: The Additional Cost of the Triple Lock (OBR)

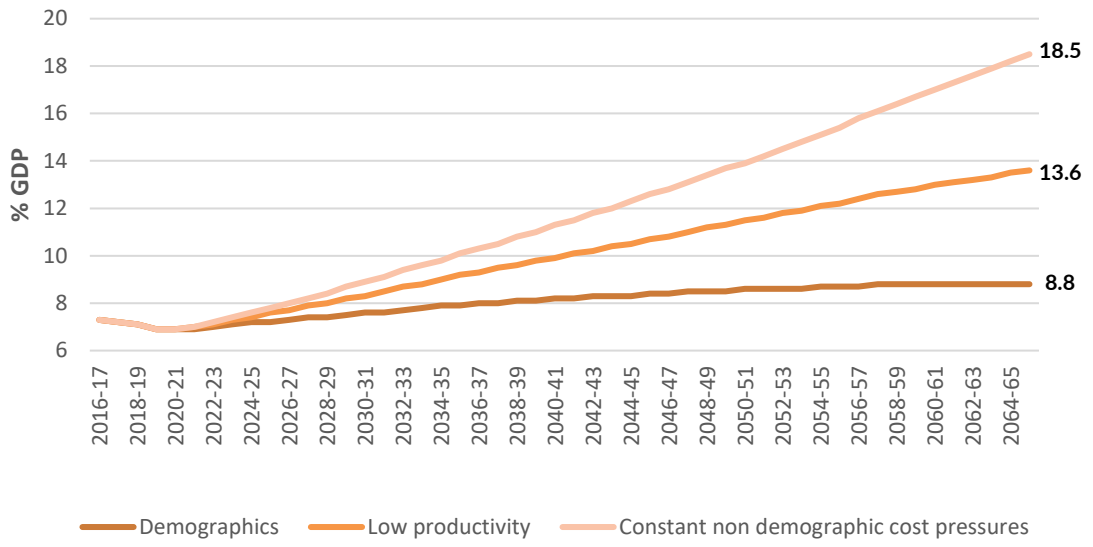


Ageing is in an ever greater distraction in the health system, where lagging productivity and higher demand have played a much bigger effect on costs. Between 1997 and 2010, health productivity grew by just 7.2% compared to a 24.6% growth in productivity across the economy. While demand has been growing fastest among the elderly, utilisation rates of health services have been growing strongly across all age groups, for both in and outpatients. Overall, the OECD estimates that just 0.2% of the 4.5% annual increase in real per capita spending between 1995 and 2009 can be explained by demographics.

Looking forward, the OBR estimates that under current budget assumptions, changing demographics will increase health spending on net by 1.5% of GDP from 7.3% in 2016-17 to 8.8% by the 2060s.[23] If you instead project forward the NHS average productivity since 1979, health spending would grow much further, to 13.6% of GDP. Even more strikingly, if you look at all current non demographic cost pressures, including the implied impact of new technologies

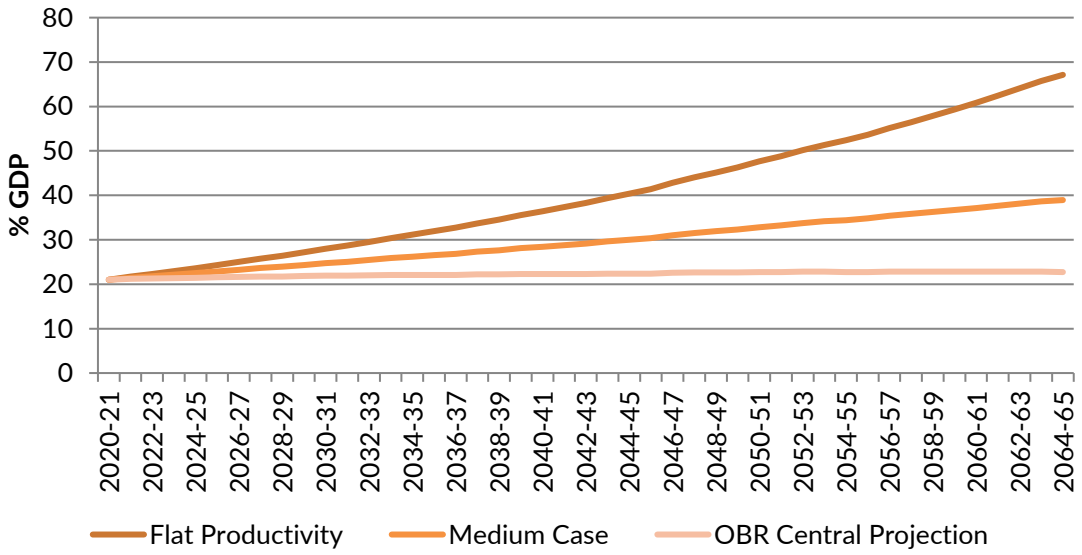
for previously untreatable conditions or the rise of chronic illnesses, NHS spending could rise to as much as 18.5% of GDP. That implies total government spending above 50% of GDP.

Figure 13: Future Health Cost Scenarios (OBR)



The OBR's central long time scenario for public spending as a whole assumes productivity matches that in the private sector, but that would be a significant achievement compared to its historical performance. Between 1997 and 2010, total public sector productivity was near zero, if not falling, while whole economy productivity grew 18%. If flat government productivity was to continue, and you assume that our demand for public services rises roughly in line with our incomes – an income elasticity of one – total departmental spending would rapidly grow out of control, far beyond conceivable levels. Even if it was to only grow at half the pace in the private sector, that would still imply a doubling of departmental spending to 40% of GDP.

Figure 14: Department Spending Scenarios



Why has productivity traditionally struggled so much more in the public than private sector?

There are many reasons, but three 'headwinds' have been particularly important:

- **Government is very labour intensive.** Many government services could only be performed by skilled human workers operating locally, with little potential to automate, outsource or offshore.
- **Government doesn't know as much as it thinks it does.** Without the feedback loop provided by user choice, market prices and provider competition, public services find it much harder to allocate resources.
- **Government is the ultimate incumbent.** The top down centralised model of government makes it hard to launch disruptive innovation, admit what programmes aren't working very well or test new initiatives.

The good news is that future changes in technology look to offset or reverse many of these trends. Automation and AI will make public services increasingly less labour intensive, with the potential for automation in the pubic sector little different from the estimated 35% for the labour market as a whole. Digital technology will make it much easier to frictionlessly measure performance without creating excessive paperwork, and put the individual in far greater

control, linking up with preventative health data from wearable tech or real time tax or welfare information. Finally, Cloud technologies will commodify some of the advantages of scale, making it possible for smaller teams closer to the front line to match the efficiency of big organisations, while maintaining nimbleness and a human connection.

Over the next few months, Policy Exchange will be releasing more work looking at how Government can take advantage of new technology to become more efficient, flexible and innovative.

In the short term, the Government should not allow Brexit to distract it from the long term need to deliver more financially sustainable Government. One of the Coalition's most impressive achievements was that after thirteen years of stagnation, according to the latest data (2010 to 2013), public sector productivity finally started to improve, by 2.6% on total. **There is a danger that with the deficit fallen back towards its historic average and Brexit taking up much of the attention, the drive for efficiency and reform is allowed to slide, reversing many of the hard won benefits from fiscal consolidation.** Seeking a more effective Government is not in opposition to supporting the economy through any uncertainty created by Brexit – in contrast, more ambition now in current spending gives more leeway for greater support later on.

In order to maintain the focus on fiscal sustainability:

- **The Government should become much more systematic about continuing to drive and monitor improvements in efficiency.** Rather than allow momentum to be lost, the Public Sector Efficiency Group should be placed on a permanent basis, with the 2018 Efficiency Review subsequently repeated annually as an opportunity to share learning across the public sector.

- **Instruct individual departments to set out their own efficiency statistics in annually updated Single Departmental Plans**, with more live information on performance against core targets and the core unknowns each department is facing. The OBR should have the authority to call out departments it believes are falling behind in the transparency agenda just as it pushes back against unrealistic costings.

- **Alongside the publication of the review of the State Pension Age, the Government should launch a consultation on a long term replacement**

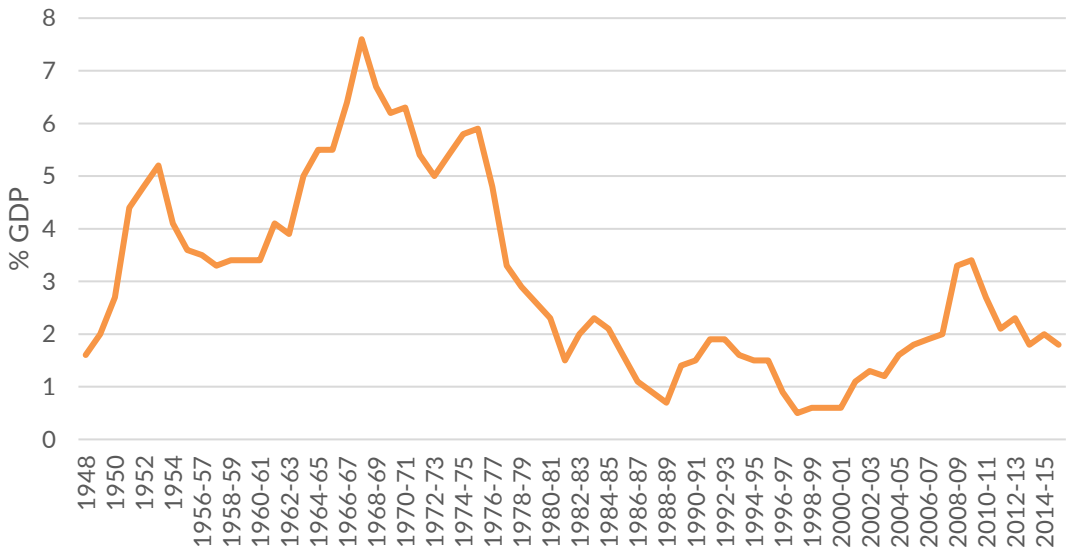
for the triple lock. While the Government is committed to maintaining it until the end of this Parliament, there are good arguments to believe that in the medium term it should be replaced by a more sustainable system, such as a relative earnings link with additional protection during periods of high inflation.[24]

Do we need to Increase Spending on Infrastructure?

The Case for Infrastructure

In the immediate aftermath of Brexit, many politicians and commentators repeated the increasingly popular call for a significant increase in spending on infrastructure. While infrastructure remains above its medium term average, it is still far below its peak in the post crisis stimulus, let alone the levels in the post war decades when the state still owned the nationalised industries.

Figure 15: Public Sector Net Infrastructure (OBR)

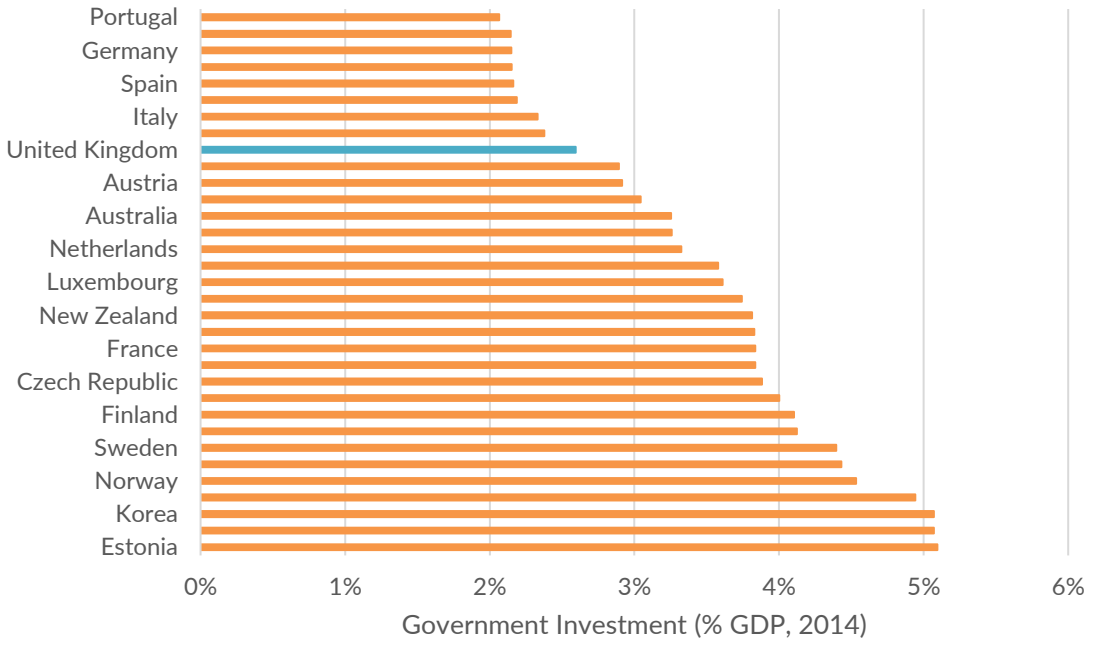


On the face of it, there are a number of reasons why a significant increase in spending on infrastructure would be attractive for both term long term productivity and short term demand:

- **The UK has historically invested far less in infrastructure than other OECD countries.** While international comparisons are far from perfect given the different structure of national economies, the UK has clearly been at the low end of government infrastructure spending for a substantial period of time. Between 1980 and 2013, gross government investment spending averaged 1.8% of GDP in the UK, compared to 3.5% in Canada, 4.2% in France, 3.5% in Switzerland and 4.3% in the United

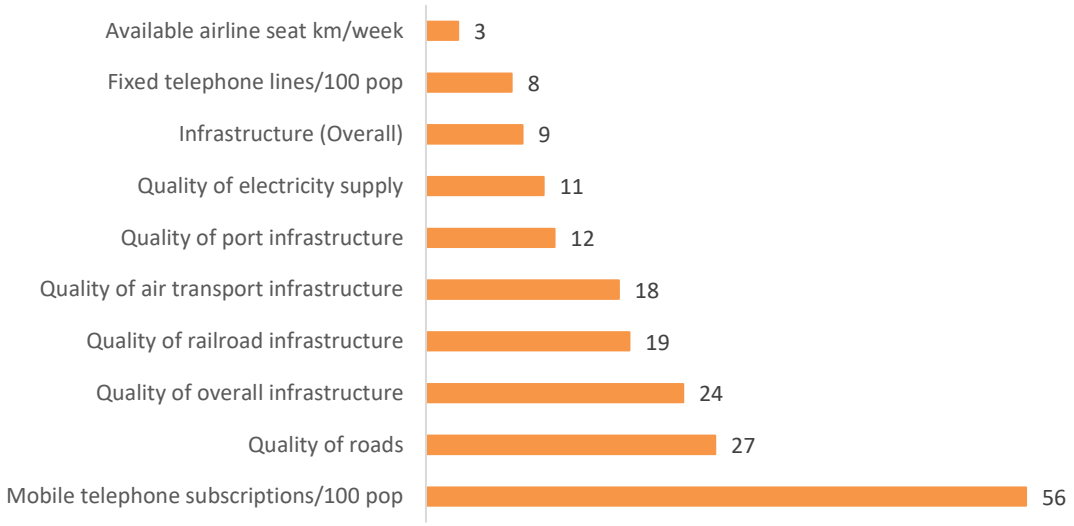
States. The average OECD spending on infrastructure today is 3.5% of GDP, while the UK spends just 2.6%.

Figure 16: International Comparison of Infrastructure Spending (OBR)



- **Inadequate supply and quality of UK infrastructure is still seen as a long term barrier to economic competitiveness.** Inadequate supply was the second most cited factor behind tax regulations in the latest Global Competitiveness Report, with the overall quality of infrastructure ranked 24th. The UK has some strengths – notably in the aviation sector – but other areas such as roads or rail are seen as more of a drag on the economy's performance.

Figure 17: Ranking of UK Infrastructure (World Economic Forum)



- **Historically low interest rates reduce the cost of borrowing, and increase the implied benefit-to-cost ratio of investments in infrastructure.** Despite perceived uncertainty over Brexit and the fall in sterling, Gilt rates remain at historically low levels. Given the substantial pipeline of investments the Government believes necessary in the coming years – a £483 billion pipeline in the latest National Infrastructure Delivery Plan – bringing some of this spend forward has the potential to save significant amounts of money.

- **It is misleading to look at fiscal sustainability only through the lens of debt, without taking into account any new assets infrastructure spending might create.** Equally, moving spending off balance sheet through public-private partnerships might flatter the Government's books, but it is unlikely to genuinely improve the public finances unless a real transfer of risk occurs. Public interest rates remain significantly below those paid by the private sector, and additional annual spending on infrastructure is much easier to reverse than current spending, implying the dangers of supporting an unsustainable increase in government as a share of the economy are far less than in current spending.

- **In addition, in the short term spending on infrastructure can act as a stimulus to support the economy through Brexit uncertainty.** The OBR believes that infrastructure demand spending has the largest multiplier

effect of 1%, three times as powerful as reductions in the tax rate.[25] In recent years, the IMF has argued that the multiplier can be even higher than this (1.4%)[26], while others such as Summers and Delong (2012) claim that when monetary policy is constrained the multiplier can be so high that fiscal expansion such as infrastructure can be self-financing.[27] More speculatively, if the economy is in a prolonged period of inadequate demand from the private sector – a 'secular stagnation' – Summers argues that the Government may need to pursue long term higher spending in infrastructure to boost the neutral real interest rate.

The Case Against Infrastructure

Given this strong prima facie case, arguing for increased infrastructure spending has been perhaps unsurprisingly popular on both sides of the political spectrum.

In reality, however, the arguments over infrastructure are significantly more nuanced than this, and it is far from clear that in particular a short term government surge in infrastructure spending should be a priority:

- **Infrastructure spending is among the least nimble forms of stimulus, while we remain in a period of high uncertainty.** Given the state of the data today, it is not clear that the British economy needs any stimulus – if anything, there is a case for the Government to be doubling down on consolidation to reduce the inflationary spike from depreciation. Unlike monetary policy or tax cuts, infrastructure spending has long lead times, making it difficult to shift or alter to changing circumstances in the short term. Moreover, the historic record of pursuing persistent infrastructure spending over the long term is far from promising: between 1991 and 2008 Japan spent $6.3 trillion on public investment, leaving it with a debt burden worth 250% of GDP but with little improvement in growth.[28]

- **While early studies found government infrastructure had exceptionally large returns in the long term and a positive impact on the supply side, newer studies are more nuanced.** There are good theoretical reasons to believe investment in basic public goods and infrastructure might raise the productivity of the economy, but in practice government investment often targets the wrong projects and crowds out private spending. It is

difficult to empirically show any impact on growth even from the post war building of the motorways, one of Britain's least controversial investments.[29] Overall, most recent studies find some positive impact of infrastructure investment, but there is considerable variation across countries and sectors, and a not insignificant number that find no or even a negative effect.[30] On average, as an order of magnitude estimate, a doubling of infrastructure capital might raise GDP by 10%.[31] Perhaps the safest conclusion is that while support of infrastructure is useful and worthwhile, it is far from a silver bullet that can be applied without thinking.

- **Low interest rates and high theoretical benefit-cost ratios can be misleading.** Real world interest rates have been declining for decades, with the Bank of England's latest Inflation Report arguing that this is likely to have largely been a result of changed demographics, reduced growth expectations and increased risk aversion.[32] Such factors are equally likely to reduce the implied benefit cost ratios for public investments[33] - while the public sector might think it knows better than a risk averse private sector, this is clearly a big gamble.

  Even ignoring this, government estimates of benefit cost ratios should be taken with a large grain of salt. A recent study by Flyvbjerg and Sunstein concluded that, "ex-ante benefit-cost ratio produced by conventional methods is typically overestimated by between 50 and 200 percent… [making them] so misleading as to be worse than worthless."[34]

  Given the highly skilled nature of modern construction, any public investment is likely to create some form of crowding out on the private sector, implying the true opportunity cost is not near the 0% from Gilts, but instead closer to the 7-15% rate of return you might expect from private investment.[35] Even when interest rates are low, there can still be crowding out of real resources and significant opportunity costs. Equally, to be worthwhile public infrastructure paid for out of taxation has to have returns higher than the expected deadweight cost of taxation, which as above is likely in the order of 20-30%.[36]

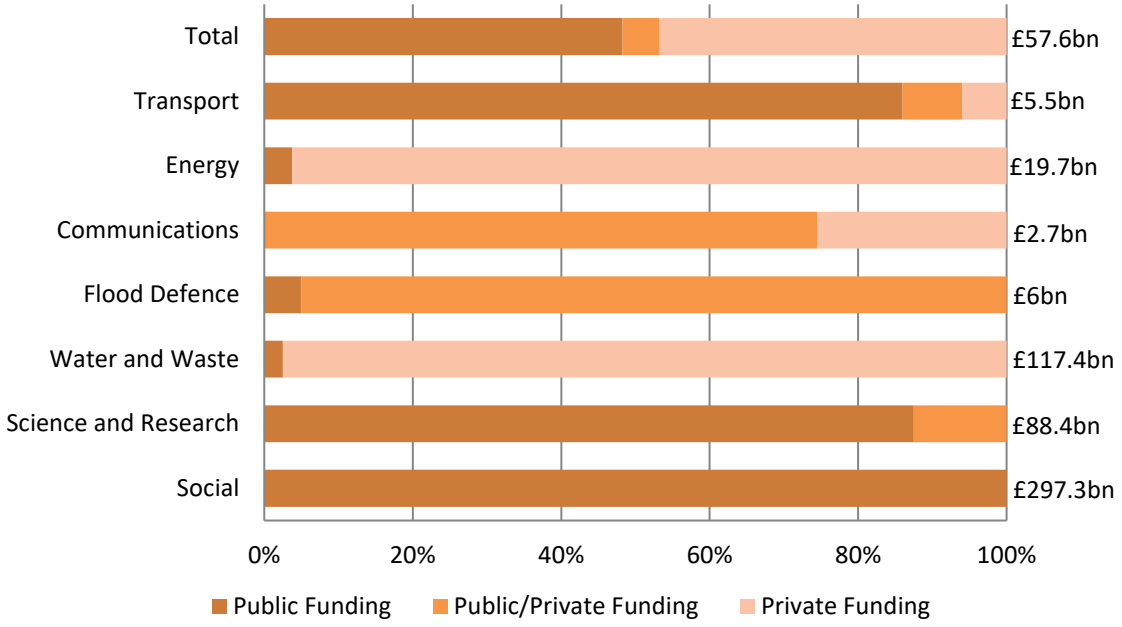
- **Public accounts should take account of both liabilities and assets, but this is unlikely to substantially alter the case for or against public infrastructure.** On the broadest official measures, total public sector

assets (£1.5 tn) are less than half the size of its liabilities (£3.6 tn).[37] Even broader measures, such as generational accounts, show that spending needsed to fall or taxes rise by around 6% of GDP to deliver intergenerational budget balance.[38] More fundamentally, the very reason many forms of government infrastructure are public goods in the first place is that their benefits are intangible or difficult to monetise. Building a new hospital might be a good idea, but it is unlikely to pay for itself directly through higher GDP.

- **Most importantly of all, the barriers to more and better infrastructure are less financial than political and regulatory.** To put it simply, Britain hasn't procrastinated for decades over a new runway because of a lack of money. In principle, it is possible to conceive of a long list of worthwhile infrastructure projects – in practice, relatively few 'shovel ready' projects exist[39], and attempts to overly accelerate the regulatory process is likely to lead to waste and political backlash. There is a good case for looking at how to speed up the planning process and provide more persuasive compensation, but this is unlikely to occur in the next six to twelve months.

  Moreover, while direct Government funding is important, it only makes up around half the expected value of the current National Infrastructure Pipeline – or just over a third if you look at economic infrastructure alone.[40] The most important means of securing long term investment in infrastructure is through putting in place the right tax, planning and regulatory systems, and creating cross party consensus for longer term projects through initiatives like the new National Infrastructure Commission.

Figure 18: Funding mix of National Infrastructure Pipeline



Overall, there is a good case to be made that Britain needs to do more over the long term to improve its infrastructure, with a focus on improving the planning system. Given our historically low levels compared to our peers, higher public spending and direct support both of physical infrastructure and intangible R&D might be part of this. If projects can be found that will genuinely boost long term productivity, there is no harm in moderately higher spending to pay for them. However, this is unlikely in the short term to represent a step change on current plans of infrastructure spending of around £32 bn or 1.5% of GDP. **Trying to rush this in the short term, however, is likely to lead to significantly wasted resources and threatens to undercut more important long term reforms like the National Infrastructure Commission.** Even if more short term stimulus is needed, public infrastructure is unlikely to the most effective means.

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