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National Institute of Economic and Social Research

Light at the end of the fiscal tunnel?

Foreword

In his recent Spring Statement, the chancellor said that he saw light at the end of the fiscal tunnel. We are afraid that this will turn out to have been an illusion. While public borrowing has been reduced to sustainable levels, our analysis of the prospects for the public finances points to severe challenges ahead.

Sustainable borrowing has been achieved by cutting back on public services and restraining public sector pay. But 'austerity fatigue' is now setting in, and emerging recruitment difficulties and concerns about the quality of public services mean that there are already strong pressures for public spending to rise.

On top of that, the demand for public services is increasing sharply to meet the needs of an ageing population. That provides a difficult background for the 2019 Spending Review. We estimate that an additional £300 billion would be needed over the next seven years to meet reasonable demands. A hard Brexit would make the situation even more challenging. With debt already at an uncomfortable level, increasing public spending by substantially more than currently planned would need to be financed with higher taxation or more direct charging for services. The alternative option of continued spending restraint would not be palatable unless government can find significant ways to improve efficiency and get better value for money.

Dr. Garry Young, Director of Macroeconomic Modelling and Forecasting, NIESR

The pressure on the UK's public services has never been so intense; fiscal constraint has become the norm, citizen expectations about the accessibility and digital nature of services have never been so high, demand is only set to grow and in Brexit, we face the biggest market disrupter since the implementation of the NHS. An intervention is urgently required.

In lieu of an alternative fiscal plan, we must help government drive efficiencies from within. Current public service operating models may be too complex and outdated to deal with the multiple challenges ahead, but overhauling them entirely is too expensive and extreme. Instead, new technologies, such as the Internet of Things, AI and automation should be harnessed to deliver services that can not only cope with society's swelling needs, but are truly world-class.

Bigger, better and faster public services are within reach. We are excited to form a part of the solution to help government achieve these aims.

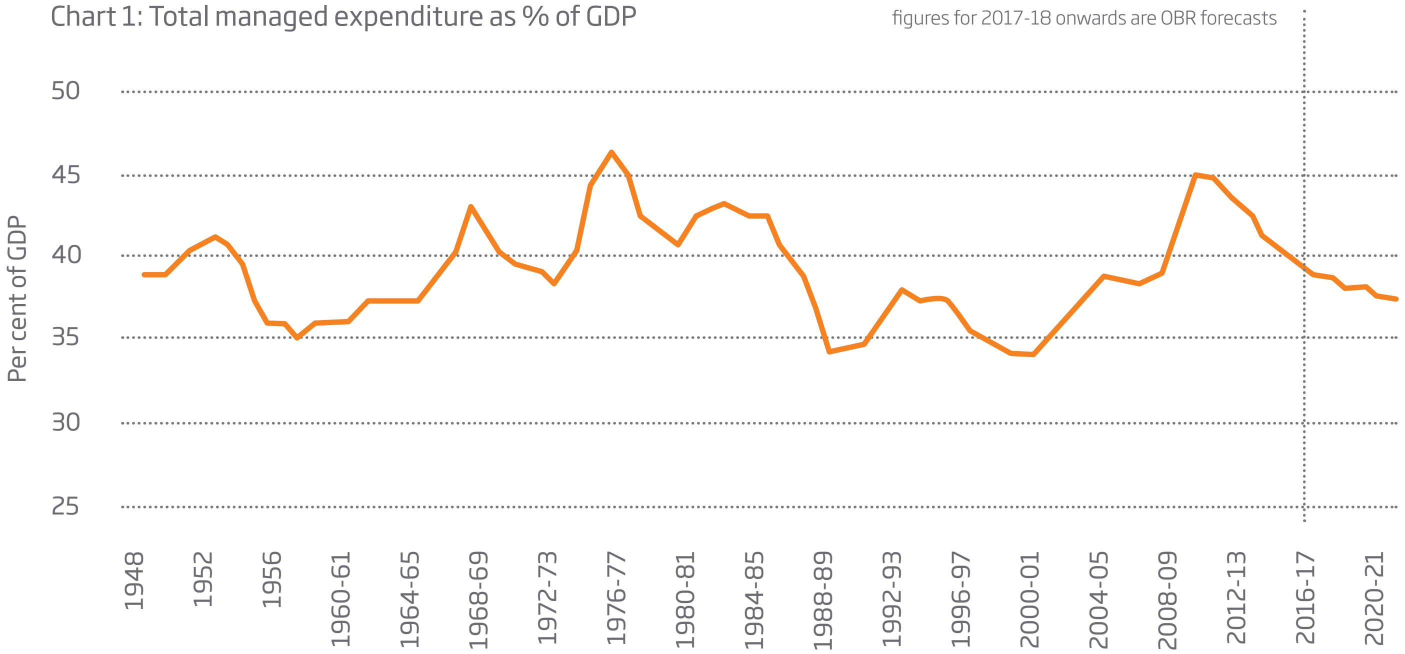
Adrian Fieldhouse, Managing Director for Government, Sopra Steria

Seven lean years

In the aftermath of the financial crisis and associated severe recession, public sector net borrowing reached a post-war record high of £153 billion in 2009-10 alone (9.9% of national income in that year). At the time, there was widespread agreement across the political spectrum that this needed to be brought down.

The main approach to fiscal consolidation since 2010 has been to restrict public spending by means of pay restraint and by cutting public services in non-prioritised areas. Adjusted for inflation, public spending has hardly grown at all since 2010 and, more significantly, the amount spent per head of population was 6% lower in 2017 than it had been seven years earlier. As a share of spending in the whole economy, public spending fell from 45.1% of GDP in 2009-10 to an estimated 38.9% of GDP in 2016-17, and is now lower than the post-war average of 39.3% of GDP (Chart 1).

Chart 1: Total managed expenditure as % of GDP



Source: OBR public finances databank

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Seven lean years

Fiscal consolidation

The fiscal consolidation was not spread evenly across the public sector (chart 2).

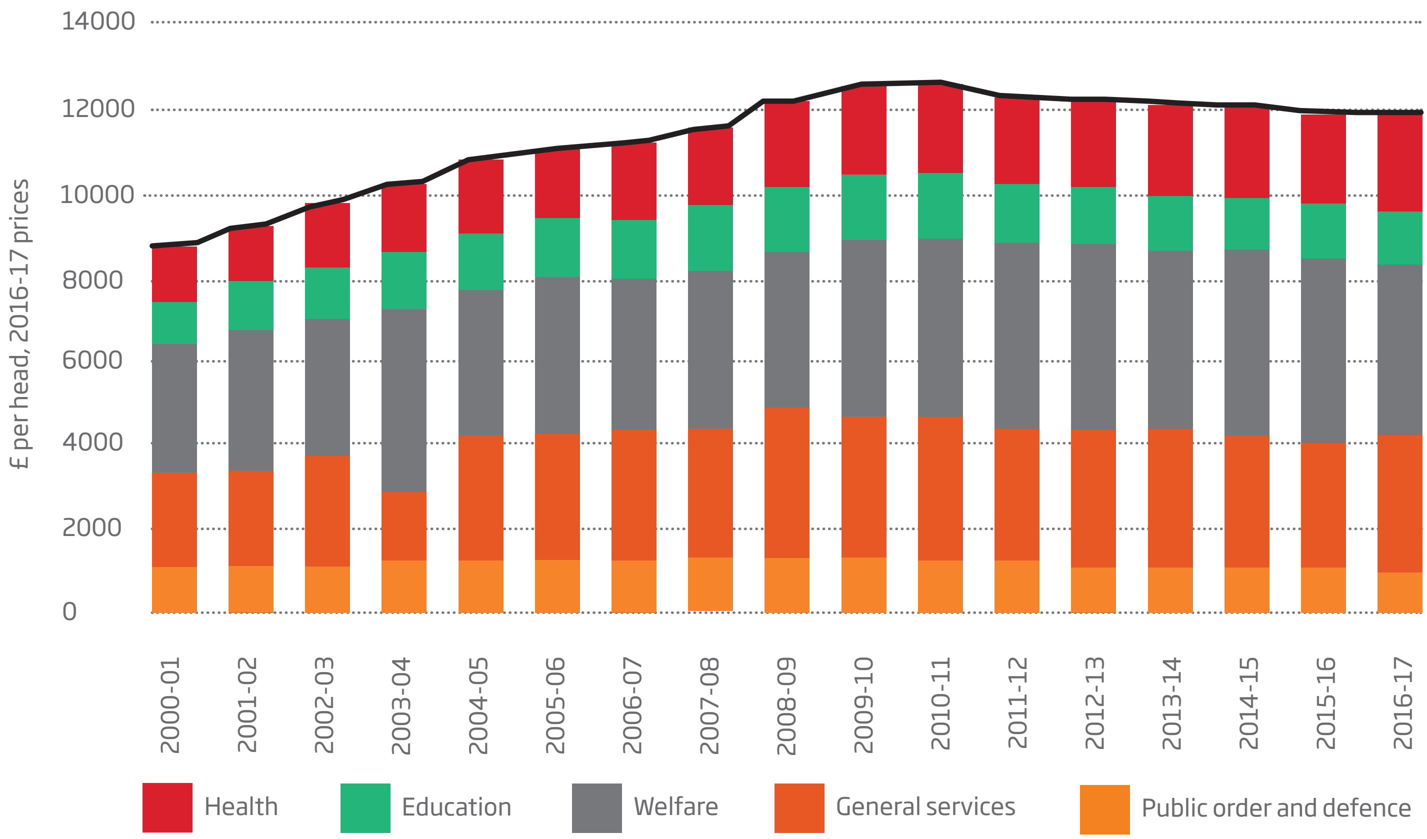
From the outset, certain types of spending were protected. These included spending on schools, health, overseas aid and pensions (via the so-called 'triple lock').

This meant that non-priority spending areas experienced severe cutbacks. Real spending on defence was 14% lower in 2016-17 than it had been in 2010-11, spending on public order and safety was 17% lower, and spending on housing and community activities was 37% lower. Spending on education as a whole was 13% lower, though this partly reflected a switch in university funding to student fees.

But even some of the priority spending areas may not have received enough resources to maintain the quality of service expected. For example, at a time when the elderly population is increasing, it is now generally accepted that not enough resources have been allocated to health, even though its budget has not been cut. And this has been compounded by real cuts in funding for adult social care that have reportedly led to delayed discharges of elderly hospital patients and high levels of bed occupancy.

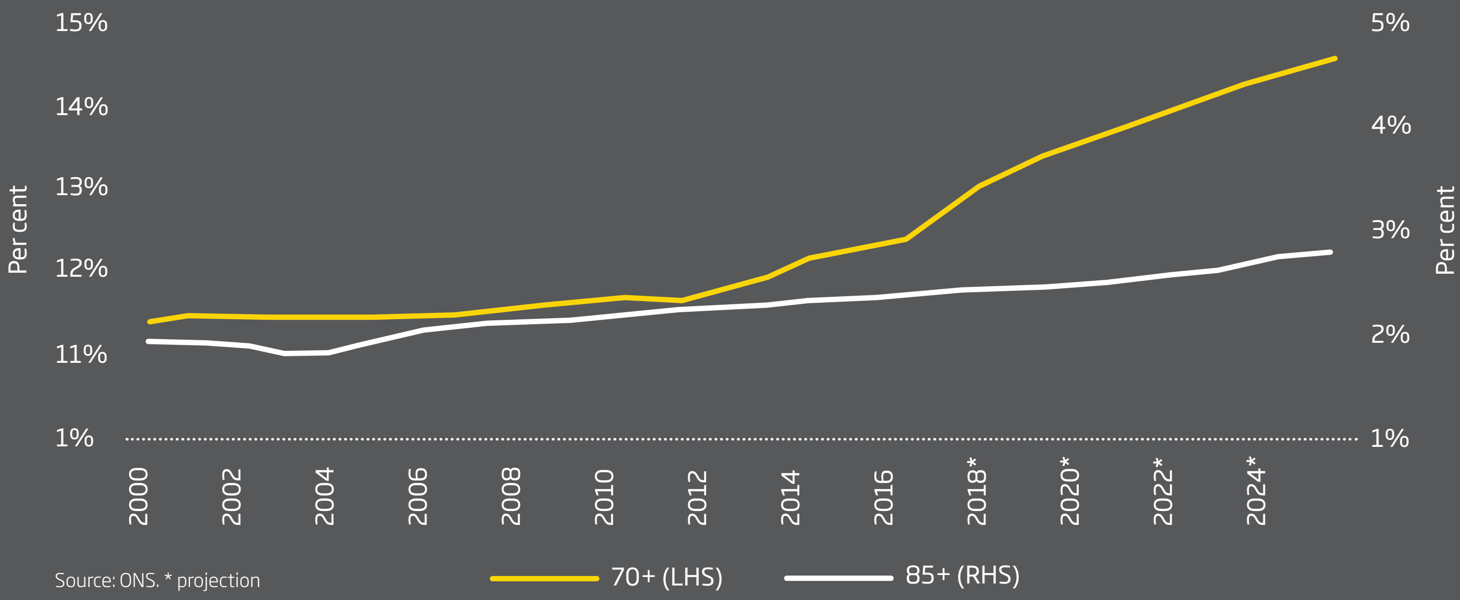
Chart 3 shows the upward trend in the proportion of the UK population who are over 70 and over 85 - the points in their lives when they need more health and social care. Chart 4 shows Office for Budget Responsibility (OBR) estimates of how public spending per person rises sharply when people reach 70 and is even higher at 85.

Chart 2: Total managed expenditure per head



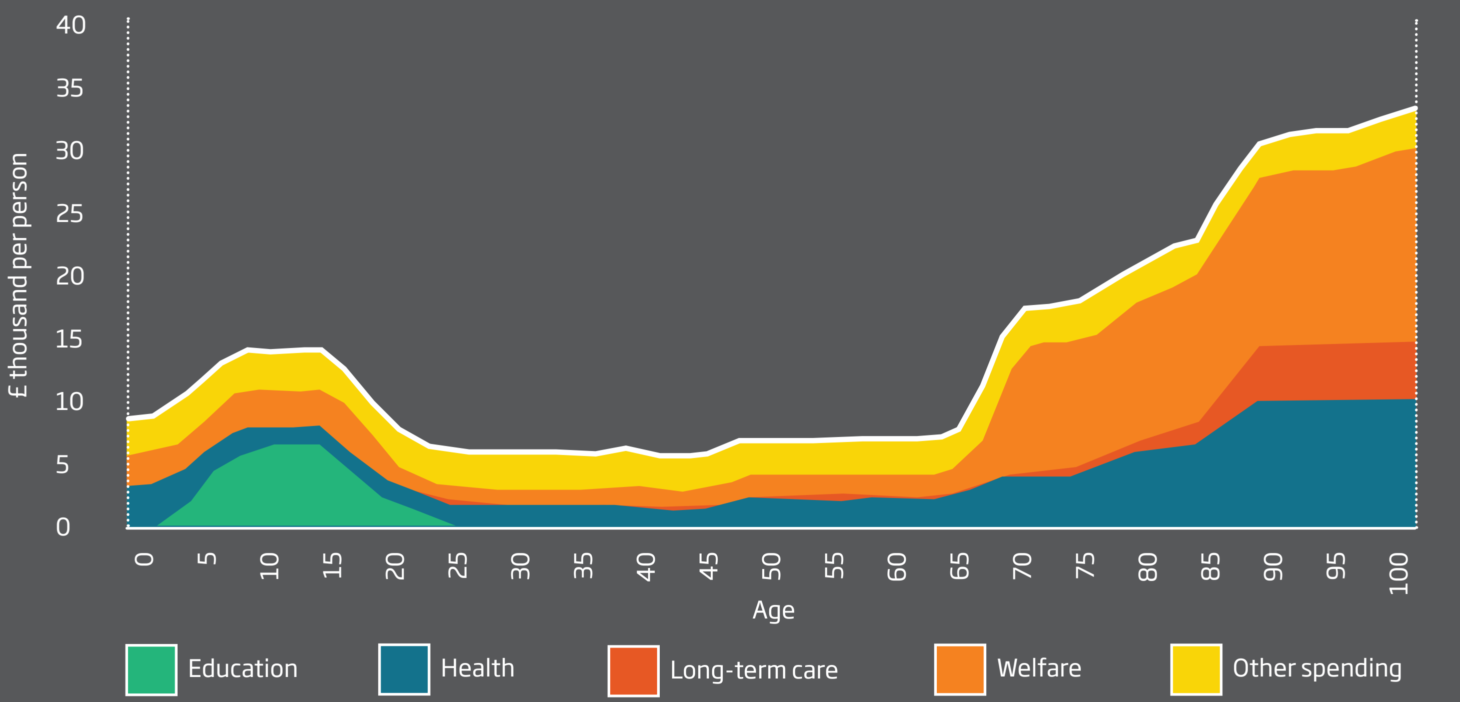
Source: Public Expenditure Statistical Analyses, 2017 and NIESR calculations

Chart 3: Old age share of population



Source: ONS. * projection

Chart 4: Average public spending per person by age



Source: OBR Fiscal Risks Report 2017

Seven lean years

How much spending is warranted?

This raises the important question of how to judge what level of spending on public services is warranted?

One approach is to compare government spending in the UK with that of other countries. Government spending as a share of GDP in the United Kingdom was broadly in the middle of the pack of OECD countries in 2016[1]. But one size does not necessarily fit all. And using that yardstick does not take into account the different preferences and characteristics of countries, as diverse as Finland, at the top end of the range, and the United States, towards the bottom, that lead them to choose different levels of spending.

Instead, we suppose that the level of public spending as a share of GDP has evolved over time in accordance with the preferences of the British people, and is determined through a careful calibration of existing spending commitments, the demand for public services (proxied by the proportion of people who are over 70), the state of the economic cycle, and a judgement of what can be afforded. We then use statistical methods to estimate the importance of these different factors over the post-war period. That allows us to construct an estimate of the amount of public spending that would have been chosen by previous governments if confronted by the circumstances of today. We call this 'warranted' spending as it reflects the historic choices made by democratically elected governments in the UK.

Chart 5 shows our estimates of warranted spending as a share of GDP over the seven-year period from 2010-11 to 2016-17 in comparison to actual spending.

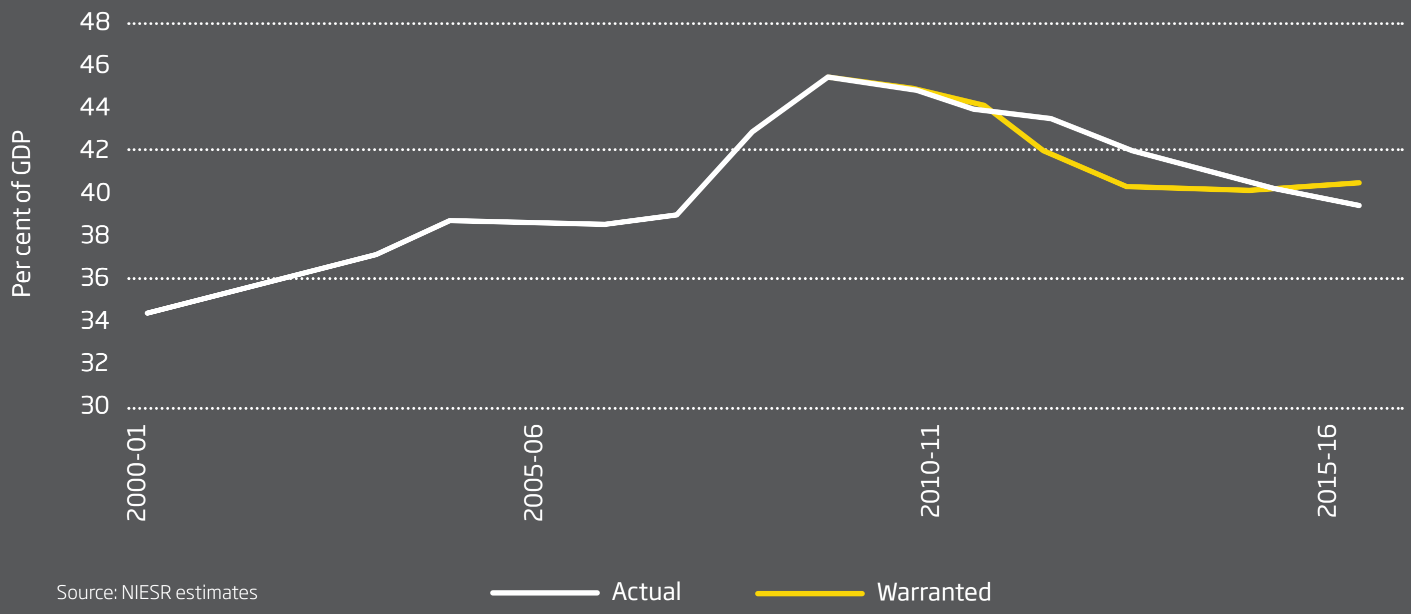
On this basis, our analysis suggests that the pace of spending reduction between 2010-11 and 2014-15 was actually a little slower than what was warranted (yellow line in Chart 5). However, our analysis shows that after 2014-15, actual spending became more stringent than would have been warranted by previous governments' spending priorities.

We can apply this same approach to individual areas of public spending (Chart 6). This shows that even in areas, such as health care and social protection, where spending was in line with our estimates in the early years of the fiscal squeeze, it now appears that consolidation has gone on too long. For instance, our analysis implies that in 2016-17 the health care sector lacked around £440 per head in funding. And any room to reduce spending on social protection appeared to be fully exhausted by 2017.

Our analysis implies that in 2016-17 the health care sector lacked around £440 per head in funding.

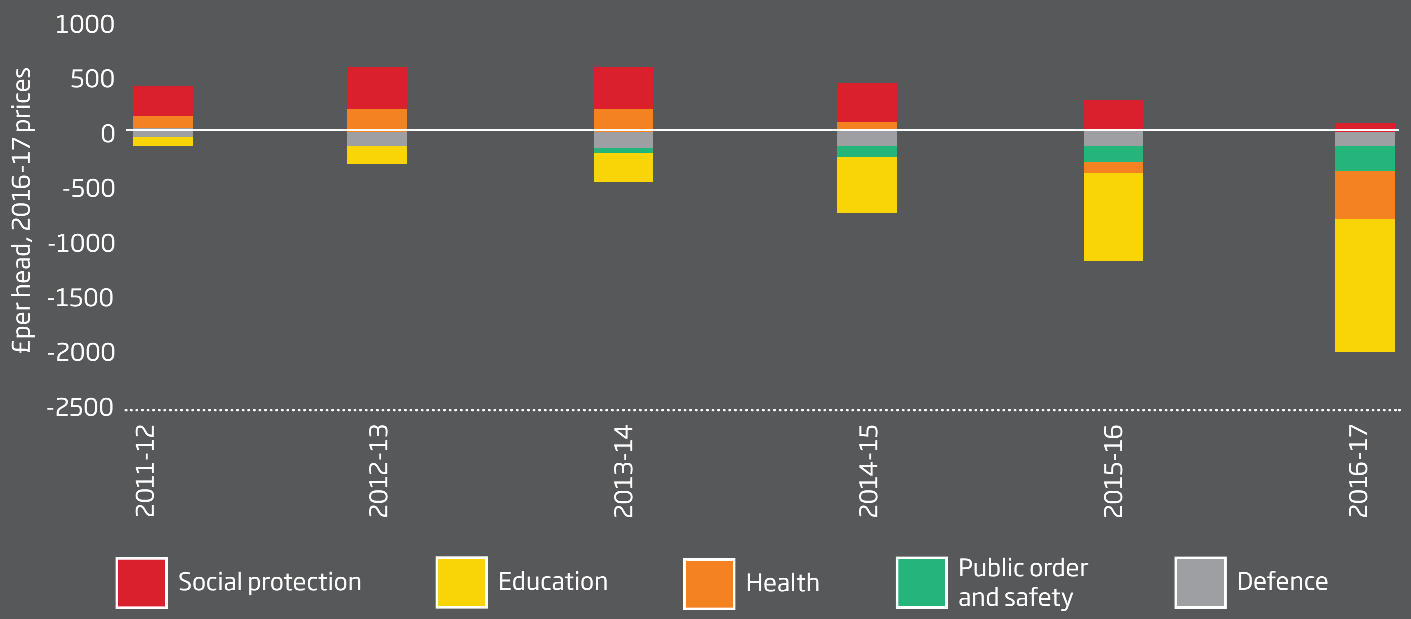
1. OECD (2018), general government spending (indicator) doi: 10.1787/a31cbf4d-en (Accessed on 18 April 2018

Chart 5: Warranted public spending as a share of GDP



Source: NIESR estimates

Chart 6: Estimated under-spending, selected functions



Source: NIESR estimates. Chart shows difference between real total managed expenditure per capita and estimated warranted level by year

Seven lean years

Public sector output, costs and efficiency

What people care about is what public sector services deliver in terms of improved health, crimes prevented and examinations passed, rather than just the amount of money spent on providing the services. And it is possible for the output of public services to increase even when spending is limited.

This can come about in two ways. First, when public sector costs are kept low so that more can be purchased with less. Second, when the efficiency of public service delivery is improved, so that more can be achieved with less.

On the first point, public sector costs have been kept down by public sector pay restraint. During the first two years of the fiscal consolidation, a freeze was imposed on public sector pay. This was then followed by a 1 per cent annual growth cap. An extended period of pay restraint has meant that a gap has built up between public sector pay and what is available in the private sector. Recent NIESR research has estimated that public sector wages had fallen more than 3% below their equilibrium level in 2016-17[2]. A consequence of the growing divergence between pay in the public and private sectors is that the public sector has become a less attractive place to work. This has resulted in increasing recruitment difficulties in a number of areas. For example, in February 2017 it was announced that prison officers would receive immediate pay rises to reverse a 'dangerous staffing crisis'. In January 2018, the Public Accounts Committee criticised[3] the government for giving 'insufficient priority to teacher retention and development'. And shortages are apparent in the NHS. By 2017, one in nine nursing posts in England remained unfilled[4]. Partly as a consequence, a new pay deal for NHS staff was announced in March 2018 to be funded by additional NHS spending.

This pattern suggests that continued pay restraint in the public sector is unlikely to be sustainable. Indeed, the government has now lifted the across-the-board 1% pay cap. But that does not mean that the government will provide extra money to fund additional pay. While the Treasury has committed to do this in the case of the NHS pay deal, it has reportedly warned other government departments not to regard the NHS deal as a signal that it will provide extra resources to them to fund pay increases to their staff.

On the second point, there is little evidence of an improvement in measured productivity in the public sector. But measuring public sector efficiency is complex. For some public service activities, the Office for National Statistics (ONS) measures output by the activities and services delivered. But in other areas, such as defence and police, there is no obvious way to measure the output. It is assumed for such services that the volume of output is equal to the volume of inputs used to create them.

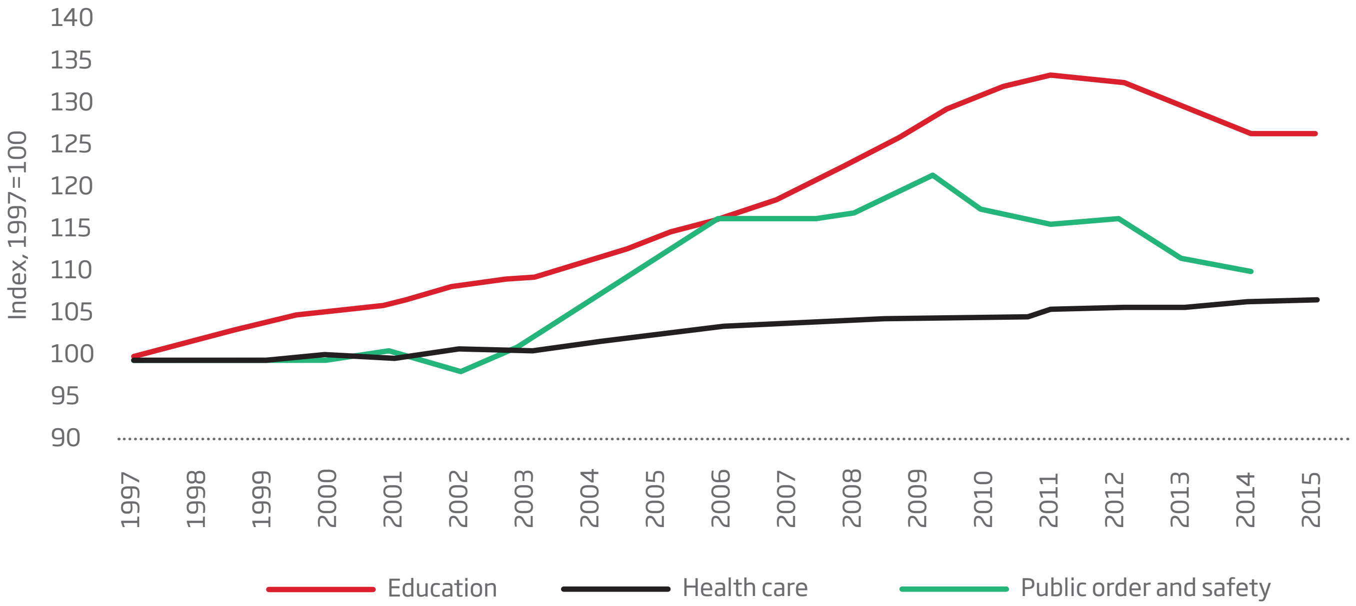
The three main areas of public sector output in the official statistics are public administration and defence, education, and human health and social work activities. Their output was estimated to have grown by -13%, 8% and 21% over the period between 2009 and 2017[5]. It is worth stressing that measured public service output grew by more than real spending in these areas. This largely arose because public sector pay restraint allowed services to be provided more cheaply than might have otherwise been the case.

In addition, the ONS attempt to measure quality improvements in healthcare, education, and public order and safety. The purpose is to reflect the extent to which the services succeed in delivering their intended outcomes and the extent to which services are responsive to users' needs.

Recent NIESR research has estimated that public sector wages had fallen more than 3% below their equilibrium level in 2016-17.

2. Dolton, Peter, Hantzsche, Arno and Kara, Amit (2018), 'Follow the Leader? The interaction between public and private sector wage growth in the UK', presented at Royal Economic Society annual conference, March 2018
3. Retaining and Developing the Teaching Workforce', Public Accounts Committee
4. Estimates by Royal College of Nursing, May 2017
5. Source: Office for National Statistics

Chart 7: Quality of public services



Source: Office for National Statistics and NIESR calculations, indexed

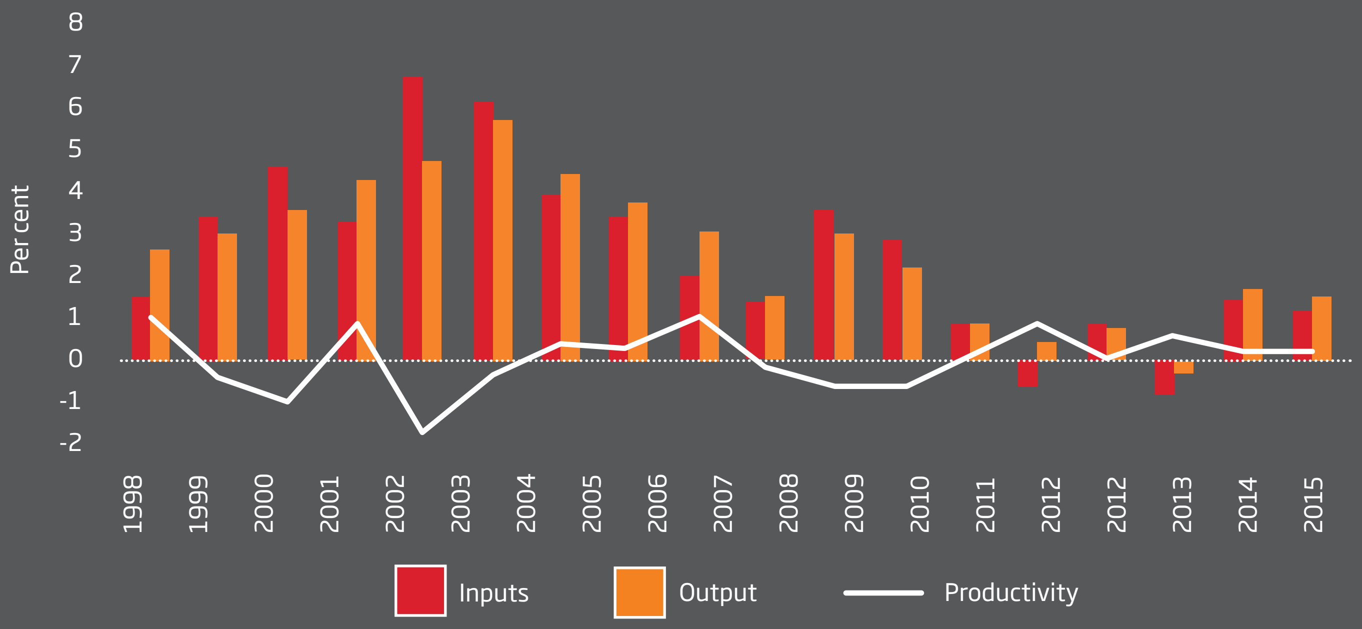
Chart 7 shows ONS estimates of the quality of healthcare, education and public order and safety services. In education and in public order and safety there has been a marked reduction in measured quality since the onset of the fiscal consolidation. In education, this decline in measured quality may be misleading as it partly reflects changes in examination passes that may not be due to changes in the quality of education provided. In public order and safety the measured decline was due largely to increases in the number of reported self-harm and assault incidents in prisons. Improvements in quality appear to have stalled in health care.

Chart 8 (see page 8) shows the latest official estimates of public service inputs, outputs and productivity, after quality adjustment, covering the period up to 2015. This shows a sharp slowdown in the growth rate of public sector output over the years 2011-2015. These estimates show little evidence of an increase in public sector efficiency in recent years, though they pre-date the Efficiency Review that was announced in the 2016 budget.

There are a range of other indicators of the quality of public services, many of which are not yet taken into account in the official ONS statistics. The Institute for Government (IfG) maintains an excellent Performance Tracker that highlights where pressures are building in the provision of public services. For example, in the health sector, there has been a marked deterioration since 2010 in the percentage of A&E visits being dealt with in four hours. And there are pressures building in areas where the ONS makes no quality adjustment. For example, continued cuts in police numbers may be having an effect on the quality of service, with victim satisfaction with the police having fallen since 2014.

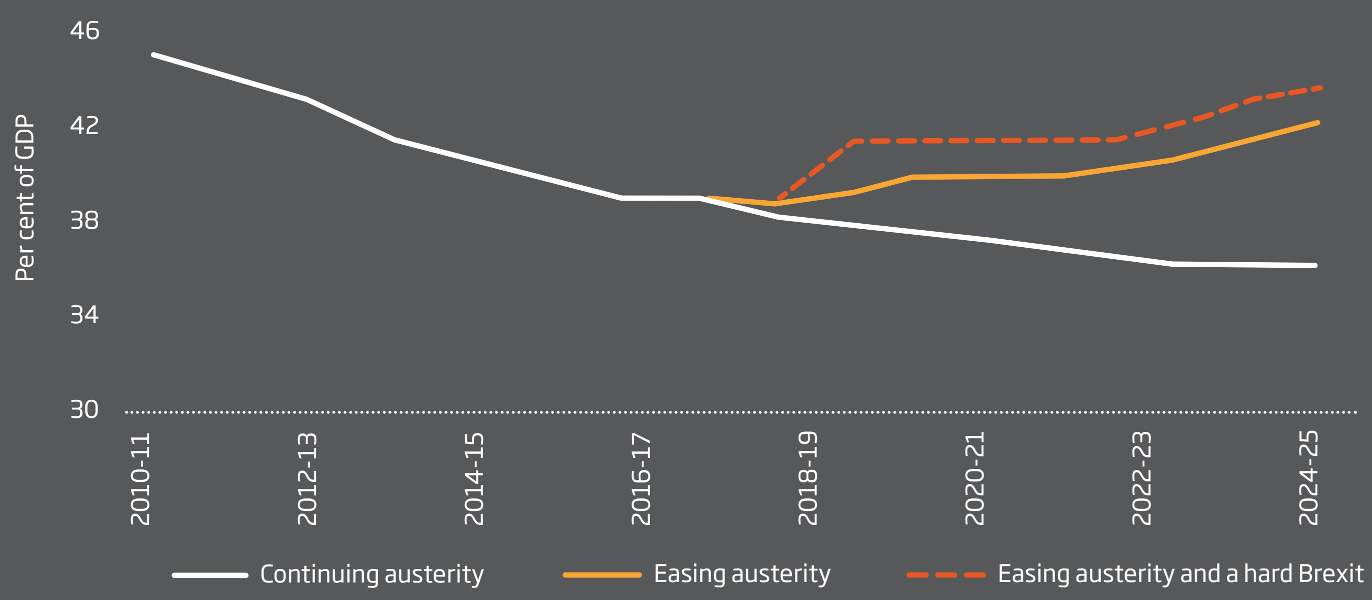
Taken together the evidence in this section suggests that, following a sustained period of fiscal restraint, low levels of public spending have had a detrimental effect on the provision of public services. To some extent public sector pay restraint has helped to keep costs down and so allowed the public sector to keep staff numbers and service output higher than would otherwise been possible. But it is very doubtful that pay restraint can be maintained given the better rewards available in the private sector. This suggests that the emerging pressures on public sector service quality are likely to be stronger in the future.

Chart 8: Growth in public service outputs, inputs and productivity



Source: Office for National Statistics

Chart 9: The outlook for public spending under different assumptions about austerity



Source: NIESR estimates using NiGEM

Seven more lean years

What if scenarios

The government's approach to fiscal policy and public spending is set out in the Charter for Budget Responsibility. In his post-2017 election autumn budget, the chancellor confirmed that the government was committed to following fiscal rules that would 'guide the UK towards a balanced budget by the middle of the next decade'.

This is expected to mean that spending restraint will extend further into the future. Departmental spending levels for the period up to 2019-20 were fixed in the 2015 Spending Review, and will be agreed for the following five years in the 2019 Spending Review. The future path of government spending will be set to achieve the government's fiscal objective. The latest forecast by the Office for Budget Responsibility (OBR), representing its interpretation of the government's declared policy, shows spending continuing to fall from 38.8 per cent of GDP in 2017-18 to 37.6 per cent in 2022-23. But even with this level of fiscal restraint, the OBR's central forecast of public sector net borrowing goes no lower than 0.9 per cent of GDP[6]. That means that the government would have to tighten the purse strings even further if it wants to balance the budget by the middle of the next decade.

What if scenarios

In this section we introduce a number of possible what-if scenarios that enable us to estimate the scale of the future fiscal challenges that the government faces. In doing so we are very aware that the future is uncertain and that circumstances may change dramatically for good or bad. For example, there may be a surge in economic growth and tax revenue that makes it easy to finance more public services. But it would not be prudent to assume such an outcome. Instead, like Dickens' ghosts of Christmas, the purpose of different scenarios is to enable us to think through the risks of different policies in the interests of making better choices today.

1. Continued austerity

The first scenario we consider is the business-as-usual case given by NIESR's February 2018 central forecast. This is our benchmark and assumes that the government sticks to its current spending plans in cash terms. Because the NIESR forecast for GDP is a little more optimistic than the OBR's, public spending as a share of GDP falls further to 36.6% in 2022-23, a percentage point lower than the OBR assumption for that year. This is shown by the white line in Chart 9.

2. Easing austerity

The second scenario is where we look at the consequences for the public finances of an easing of fiscal austerity, driven by the need to deal with existing pressures on public services and, on top of that, the consequences of further ageing of the population.

Our analysis has established that by 2017-18, spending in a number of areas had reached lower than warranted levels. These areas included education, public order and safety, and more recently health and social care. The government will find it hard to resist pressure to restore the quality of public services in these areas. We have also shown that some of the fiscal squeeze was achieved by capping public sector pay and this has resulted in building pressures on recruitment. In order to alleviate increasing recruitment difficulties in sectors like the NHS, pay will need to increase by more than in comparable private sectors to catch up with lost ground.

In addition, the pressure from further ageing of the population is gradually building (Chart 3, see page 3). And this will mean that extra resources will be needed to cover raising health and care costs and serve a larger number of pensioners. Also an increasing prevalence of obesity and long term conditions will create new challenges for the NHS. Patients with long term conditions account for approximately 70% of acute and primary care spend, 58% of GP appointments and 77% of inpatient bed days[7].

We have created a fiscal easing scenario where to ease these pressures spending grows in line with our estimate of its warranted level (solid orange line in Chart 9). In that case, spending would rise to 40.2% of GDP in 2022-23, thereby opening up a substantial gap over what is currently planned.

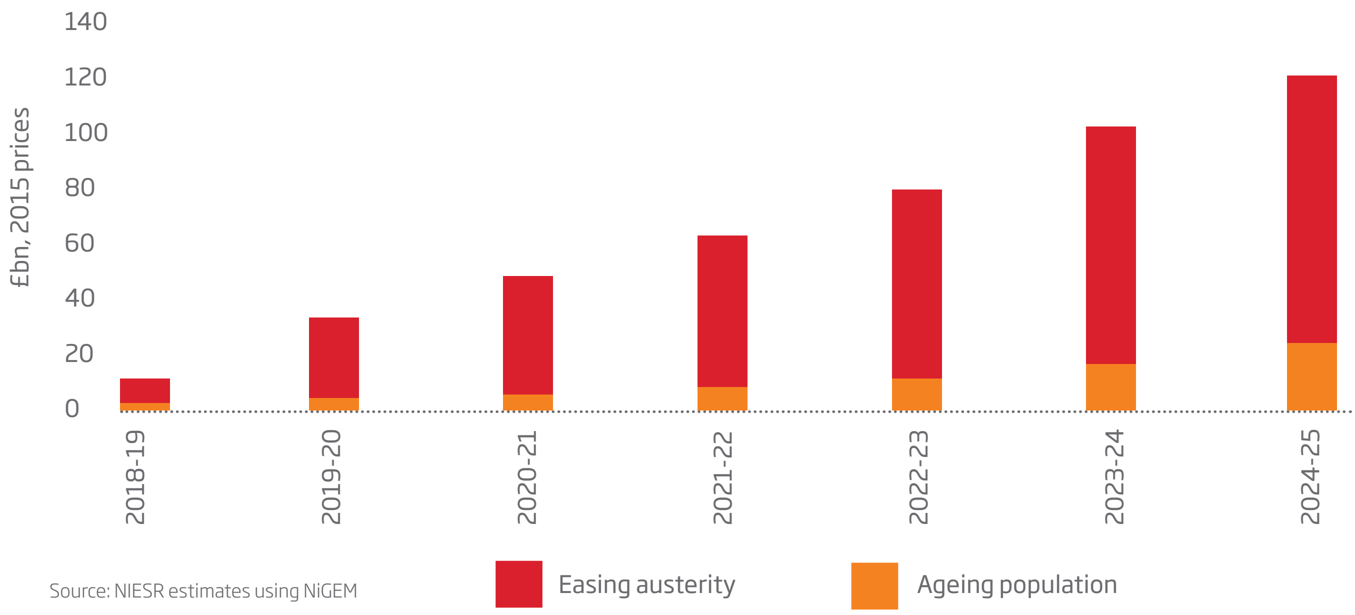
Chart 10 (see page 10) shows how much extra spending would be entailed by easing austerity in this way. **It shows that the government would need to spend over £300 billion more than it is currently planning over the next six years to match our estimate of warranted spending.** Of that extra spending, £40 billion is due to the further ageing of the population that is expected over the next six years.

6. Economic and fiscal outlook, March 2018
7. Long term conditions compendium of information, Department of Health

Seven more lean years

A hard Brexit

Chart 10: Additional spending in fiscal easing scenario



Source: NIESR estimates using NiGEM

3. A hard Brexit

In addition to these fiscal challenges, the government will also need to deal with the fiscal consequences of Brexit. There is substantial uncertainty about how this will impact the economy and the associated effect on the public finances.

The government's aim continues to be to achieve a deal where trade between the UK and the EU remains as frictionless as possible after Brexit. However, risks remain that such a deal cannot be reached and the UK reverts back to WTO trading rules. How would a hard Brexit affect the government's fiscal position?

We have constructed a scenario where the UK economy experiences a mild recession within two years of a hard Brexit. That would lower tax revenue and increase spending on unemployment benefits and other welfare expenses. It would also, by causing interest rates to rise, raise the cost of servicing public debt. Together these items would add a further £50 billion to public spending. Over time, the productive capacity of the UK economy would be lower than otherwise. And lower net migration would mean both a fall in the tax base and the number of potential spending recipients.

A hard Brexit would also mean that the UK government could recycle some of the contributions it currently makes to the EU budget into domestic public expenditure. But contributions would not fall to zero if the UK continued to be part of selected EU programmes, such as Horizon 2020. In addition, outstanding liabilities would need to be transferred for an extended period.

Taking these factors into account substantially compounds the fiscal pressures of the government by adding a further one percentage point to the spending-to-GDP ratio (dashed line in Chart 9, see page 9). This is largely the result of the recession that takes place within two years of a hard Brexit in this scenario.

Consequences for the public finances

Chart 11 shows public sector borrowing in the three scenarios we have described. This is calculated on the assumption that there are no changes to taxes, other than those which have already been announced.

In the first scenario, where the government continues with austerity and sticks to its current spending plans, it would achieve its objective of a balanced budget by the middle of the next decade. But, given existing pressures on public spending, we doubt that such a path is tolerable unless it is backed by substantial efficiency improvements in the delivery of public services.

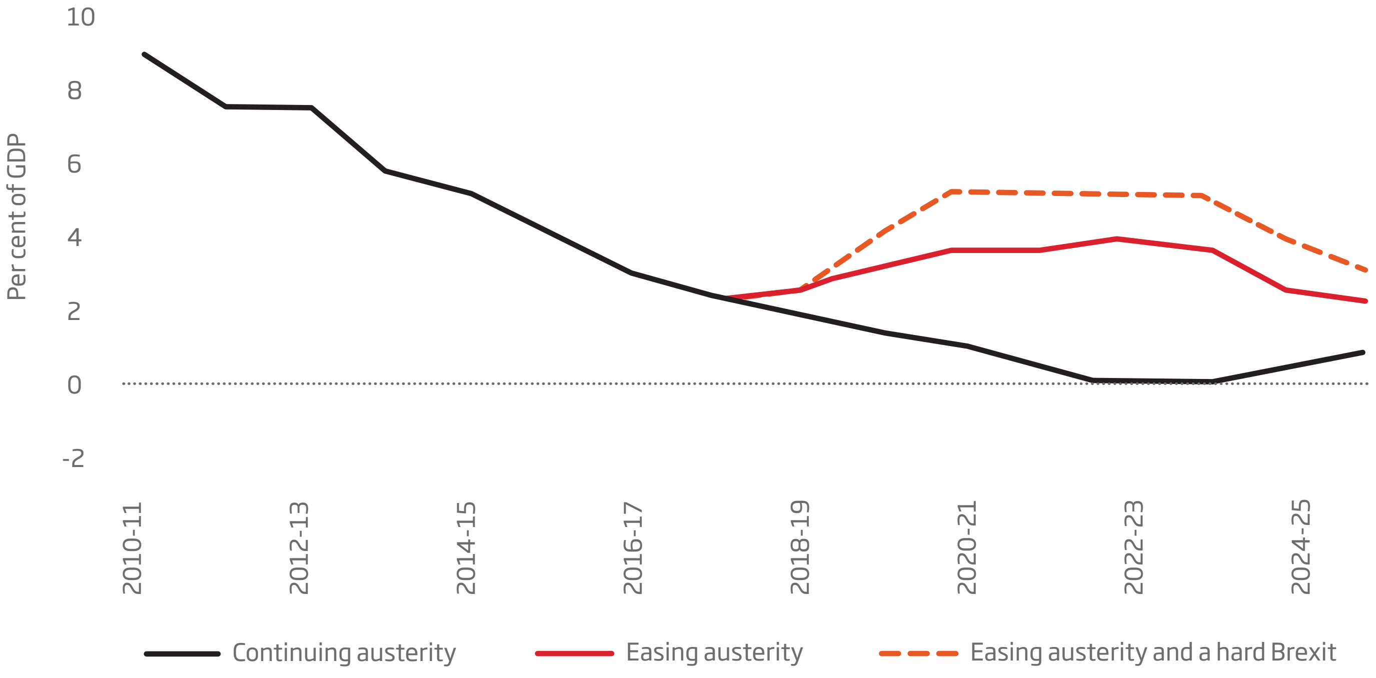
In the second scenario, where spending restraint is relaxed to accommodate more spending on public services, higher public sector pay and increased demands from an ageing population, the deficit would rise to over 4 per cent of GDP by 2022-23, breaching the government's fiscal rules. That clearly would not be acceptable to the government and would mean that public sector debt would remain at uncomfortable levels.

In the third scenario, where there is a hard Brexit as well as a relaxation in spending restraint, the deficit rises back above 5 per cent of GDP. That would be even more unpalatable.

Higher taxes

The unpalatable consequences for government borrowing could be avoided by raising taxes. But the increase would have to be substantial to raise 4% of GDP, currently worth around £80 billion, bearing in mind that an increase of 1p in the standard rate of income tax would currently raise only around £4 billion.

Chart 11: The outlook for public borrowing under different assumptions about austerity



Source: NIESR estimates using NiGEM

How to deal with the challenges ahead

There are no easy answers to the fiscal challenges the government currently faces

Of course it is possible that economic circumstances surprisingly improve, lifting tax revenue and so the amount of public spending that could be afforded within the existing fiscal rules. But disappointing economic performance over the past ten years suggests that might be just a pipe dream, and that it would be better to consider other options.

The options available to ease fiscal austerity fall into three main categories:

1. Amending the fiscal rules

There is widespread acceptance across the political spectrum that debt levels are uncomfortably high and so a reluctance to increase borrowing significantly. Nevertheless the government's fiscal objective of balancing the budget in the medium term is seen by many experts as overly-stringent. There are other rules that would allow more borrowing and still maintain fiscal sustainability in the medium term.

For example, the government could adopt the so-called 'golden rule' that it borrows no more than it invests. On current trends that would allow public spending to be sustained at 39% of GDP, rather than falling to 37.6% of GDP by 2022-23 as in the government's current plans.

But that would provide relatively limited scope for additional spending and still leave public sector debt at an uncomfortably high level. High debt levels would be less of a concern if real interest rates were certain to remain at currently low levels. One possible approach would be to carry out debt management operations to lock in more borrowing at current low real interest rates.

2. Raising tax revenue in new ways

There appears to be little appetite for a significant increase in general taxation to fund higher spending. But there are other ways to increase revenue such as charging users for more parts of services provided, or changing the nature of services provided by shifting some functions currently carried out by government further down the delivery chain.

In addition, there have been renewed calls for a hypothecated tax to fund the NHS. While there are good reasons to be wary of such taxes, if they are the only politically feasible way of raising extra revenue then they should be considered as an alternative to continued austerity. Nevertheless, the amount of money that could be raised in this way without such taxes coming to be seen as identical to general taxation is probably limited.

3. Improving public sector efficiency

The third option is to improve the efficiency with which public services are delivered. As we have seen, measured public sector efficiency gains have been relatively modest in the past, despite attempts over many years to get more from less. But that does not mean that efficiency gains are not available, nor that they would be associated with worse services. Productivity improvements in the private sector are generally achieved by a process of 'creative destruction' where competition from new businesses with new ideas and using new technologies forces incumbent businesses to keep up or close down. That process may not be appropriate throughout the public sector, but its absence may explain why ideas to improve public sector efficiency are not adopted more readily.

That would suggest a range of options be investigated that might help improve public sector efficiency. These would include providing incentives to make changes, innovate and improve efficiency; encouraging private sector discipline and incentives to appropriate parts of public services; changes to organisation and workforces, including adopting best management practices; redesigning services and providing alternative delivery mechanisms that empower users to choose most efficient providers; using technology and data to target or deliver services; more widespread sharing of best practices.

These three options for ending fiscal austerity are not mutually exclusive. But in the context of ongoing Brexit negotiations and the associated elevated level of uncertainty, the government is unlikely to want to consider introducing new taxes or amending the fiscal rules. That suggests that seeking radical ways to improve public sector efficiency may be the only palatable option for ending fiscal austerity in current circumstances and should be urgently considered.

For more information about this research please contact Dr. Garry Young,
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About National Institute of Economic and Social Research (NIESR)

NIESR aims to promote, through quantitative and qualitative research, a deeper understanding of the interaction of economic and social forces that affect people's lives, and the ways in which policies can improve them.

Further details of NIESR's activities can be seen on www.niesr.ac.uk
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About Sopra Steria

Sopra Steria, European leader in digital transformation, provides one of the most comprehensive portfolios of end to end service offerings in the market: Consulting, Systems Integration, Software Development and Business Process Services. Sopra Steria is trusted by leading private and public organisations to deliver successful transformation programmes that address their most complex and critical business challenges. Combining high quality and performance services, added-value and innovation, Sopra Steria enables its clients to make the best use of information technology.

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