

Nothing is booming in Britain, except uncertainty. This is not the time to cut public investment in research

*After chancellor Jeremy Hunt reversed nearly all of the mini-budget tax measures and reigned in energy support, he announced that difficult spending cuts are coming. This is going to be hard given Britain's already stretched public services. Areas of capital investment, including the science budget, might therefore be at risk in the fiscal plan announcement scheduled for Halloween. **Anna Valero** and **John Van Reenen** write that cutting the science budget would be a "monumentally bad idea".*

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To put it mildly, we live in uncertain times for UK economic policy.

Britain has suffered from a turbulent policy environment for a while and this is getting worse, not better. However, in one dimension at least, there has been relatively more stability in recent years: research and development policy (R&D).

In 2017, the government committed to a target of raising R&D to be 2.4% of GDP (then, the OECD average) by 2027. As part of this, the government's science budgets have been growing. The [Comprehensive Spending Review](#) in November 2021 raised public R&D investment by a third from £15 billion in 2021-22 to £20 billion by 2024-25 and set out the target of reaching £22 billion by 2026-27.

This was part of the ambition to be a "science superpower" as set out in the 2021 [Innovation Strategy](#) (overseen by the then Business Secretary, Kwasi Kwarteng). An independent review of the research, development, and organisational landscape, led by Nobel Laureate Sir Paul Nurse, was commissioned to "ensure that the UK's research development and innovation institutions serve the needs of businesses and places across the UK". And a cabinet committee, the National Science and Technology Council (NSTC), was set up to accelerate scientific research in the UK.

As we know, Kwarteng's mini-budget on 23 September [unwisely](#) set out unfunded tax cuts – on top of the large-scale energy support package– which set public debt on an unsustainable path, leading to market turmoil and political chaos.

In response, the newly appointed chancellor, Jeremy Hunt, reversed nearly all of the mini-budget tax measures and reined in energy support in an attempt to calm the markets, and has announced that difficult spending cuts are coming (likely around [£40 billion](#)). This is going to be very hard given our already stretched public services. Areas of capital investment, including the science budget, might therefore be at risk in the fiscal plan announcement scheduled for Halloween.

Cutting the science budget might seem tempting for several reasons, but it would be a monumentally bad idea.

First, recent [ONS analysis](#) suggests that UK R&D expenditure as measured in official statistics have been underestimated. A change in the way that business expenditure on R&D is measured (such that survey estimates are more in line with HMRC-based statistics on R&D tax credits) has magically [increased measured business R&D by about half](#) (£16bn of R&D each year). Combining this with R&D from government, universities, and non-profits implies that the UK might have already met the 2.4% target. Many have therefore [voiced concerns](#) that in this current environment, the fact that the UK appears to have met its 2.4% R&D target could be used to justify cuts.

Second, our now outgoing prime minister Liz Truss's commitment to science has been unclear. Less than three weeks into her office, there were reports that the NSTC was to be scrapped. On 12 October, however, there was an announcement that a new council would be established. This is exactly the type of chopping and changing that has characterised industrial and business policies, creating the kind of [uncertainty](#) that chills private investment. The role of Science Minister stood vacant for three months. At this point, we don't know who the next PM will be, and how committed they will be to science when making difficult decisions about spending cuts.

Why must we protect the science budget?

First, the uprating to the R&D numbers might be over-stated. The [ONS has not collected new data on R&D](#) but has effectively given more statistical "weight" to the R&D of small

firms in its R&D survey, which it believes were being under-sampled and therefore under-represented before. It is true that many of these smaller firms have likely increased their expenditures due to the successful R&D tax [policy](#) introduced in 2000. But since firms are incentivised to declare more R&D by the tax system, it may be that some of these are over-estimates (HMRC itself has estimated that nearly £500 million in 2021-2 was [“fake” R&D due to fraud and mistakes](#)). The ONS is working hard to get better data, but the jury should still be out on exactly how much higher aggregate R&D should be. We think it quite possible the numbers will be adjusted down again later, so radical policy change should not occur based on such recently revised estimates.

Second, R&D and investment in innovation more broadly (including investment in other intangibles such as branding, design, or organisational capabilities), are key to restoring [productivity growth in advanced economies such as the UK](#). Any government that is serious about growth must maintain these kinds of long-term investments. Even if UK businesses are investing more in R&D than we previously thought, we still clearly have a [productivity problem](#) relative to our main peers suggesting that quality as well as quantity matters. And there is definitely room for improvement when we compare many of Britain’s key measurable innovation outcomes to other advanced economies– such as patenting activity. Besides continuing to support R&D through public grants and tax credits, it is important to ensure that complementary factors are in place so that R&D is converted into marketable innovations. This is particularly the case for [worker and managerial skills](#). The UK has long suffered various skills shortages, many of which have intensified since COVID and Brexit; and overall the UK lags in [management](#) quality, which foster innovation.

Third, public investment in R&D is particularly valuable given its role in a) generating spillovers into the private sector (see this [toolkit](#) for a summary of evidence), and b) finding solutions to key societal challenges such as health and climate change (think solar power). Indeed, the experience of the pandemic demonstrated the value of publicly funded research relevant for [the development of vaccines](#) and treatments. And the UK specialises in many green technologies (e.g., wind). Capturing [growth opportunities](#) for UK inventors and firms to serve growing domestic and international demand for clean tech, products and services is vital.

Finally, the 2.4% target may have been too low – many were [already arguing](#) we should be aiming for over 3% to bring us in line with some of our main comparators such as the

US and Germany.

When questioned by the [Science and Technology Committee](#), the new Science Minister Nusrat Ghani confirmed that R&D budget commitments in the near term would remain the same. But in today's environment of policy reversals and U-Turns, and other risks to UK science (such as continued uncertainty regarding the UK's access to EU research funding), those of us interested in the health of the UK's research system will need to monitor developments closely as a new PM, cabinet and policy approach takes shape.

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