

From T to R revisited:

Cross-subsidies from teaching to research after Augar and the 2.4% R&D target

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With a Foreword by Professor Robert Van de Noort



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Notes on the data used in this report

Most of the data in this report are taken from TRAC, which is short for 'Transparent Approach to Costing'. In the words of the Office for Students, 'The Transparent Approach to Costing (TRAC) is an activity-based costing system adapted to academic culture which provides information to help higher education providers understand the costs of their activities (teaching, research and other activities).'

TRAC data are collected by the Office for Students on behalf of UK Research and Innovation, the Scottish Funding Council, the Higher Education Funding Council for Wales and the Department for the Economy (Northern Ireland).

TRAC is a contested way of assessing institutional costs. However, the methodology was devised specifically to enable an official assessment of shortfalls in funding and it allows institutions to collect information on a comparable basis. Moreover, as the Financial Sustainability Strategy Group said in their report on cross-flows within institutions: 'Any (potential) reservations about the accuracy of the TRAC data are expected to be within accepted levels of materiality, and thus highly unlikely to change the findings and conclusions from this study.'

In this paper, the TRAC category named 'publicly funded teaching' is used as a proxy for home students and the 'non-publicly funded teaching' category is used as a proxy for international students.

The picture painted in this report is primarily of England because the Augar report is focused on England, but the financial picture on cross-subsidies is broadly comparable for the whole UK and the other parts of the UK. As the TRAC data for England and Northern Ireland are published together, Northern Ireland is sometimes included alongside England.

Sources:

<https://www.officeforstudents.org.uk/data-and-analysis/trac-data/>

<https://www.officeforstudents.org.uk/media/2afa9afa-063c-4327-88d3-c2350b10f8d6/fssg-understanding-income-cross-flows.pdf>

Foreword

By Professor Robert Van de Noort

The debate about value for money in higher education reflects an unclear understanding of how and why universities do what they do. The issue of income cross-flows is central to this debate. As this report shows, the defining features of universities are interdependent. In particular, university research loses so much money that it cannot currently happen at scale without substantial cross-flows of income from teaching students, generally international students.

This report focuses above all on the additional challenges that would arise in England if the Westminster Government opted to continue holding down the amount of funding per student (or worse) in the aftermath of the Augar report. In that scenario, achieving the planned increases in expenditure on research and development (R&D) would be very hard to achieve. Yet, if anything, the challenge is even greater than the following pages suggest for three reasons.

First, while everyone accepts that the official 2.4% research and development target is not to be delivered by universities alone, it does require universities to train significantly more PhD students. Otherwise, the private sector will not be able to deliver its contribution to the total. One key problem for universities is that home fees for PhD students have been held down, and are continuing to be held down by UK Research and Investment (UKRI). Currently, only around 50% of the cost of training a PhD is recovered. Many people regard this as the single biggest barrier against meeting the Government's welcome and ambitious goals for R&D.

Secondly, analysis of cost recovery from UKRI research grants has shown a consistent decline over the last decade, with now

only 72% of the full economic costs recovered, despite the stated 80% on offer. This declining cost recovery arises from UKRI's desire for more leverage – in the form of university-funded PhDs, equipment and laboratories – and from principal investigators asking for research time that is well below that actually recorded through TRAC.

Thirdly, when the Augar report plumped for a fee cap of £7,500, this was derived by omitting the margin for sustainability and investment, as calculated by KPMG for the Augar panel, from the total costs.¹ Yet it is this margin for sustainability and investment that gives universities the financial room for investments in new research and taught programmes. For example, following Augar's argument to the letter, no university will be able to invest in new programmes such as artificial intelligence (AI) and machine learning. This seems to go against the Government's wish to strengthen research in these and other areas.

Acknowledging the interdependencies between teaching and research may have become harder as a result of the old Minister for Universities and Science role being split between two people in the February 2020 reshuffle. As a result, we all now need to redouble our efforts to ensure a deeper and broader understanding of how institutional finances work.

Professor Robert Van de Noort is the Vice-Chancellor of the University of Reading and a member of the Financial Sustainability Strategy Group (FSSG). He was Chair of the Oversight Group for the FSSG's investigation of cross-flows within UK higher education institutions.

Executive Summary

- University research is underfunded against its true costs – the latest figures show a gap amounting to £4.3 billion across the UK and £3.7 billion in England and Northern Ireland.
- The shortfall in research funding has been partially filled by cross-subsidies from international students' fees – each international student in the UK pays an average of £5,100 more than it costs to educate them.
- Depending on how the Government opt to respond to the Augar review's recommendations on tuition fees, then the shortfall on teaching home undergraduates could increase by between £0.7 billion and £2.3 billion above its current level of £0.2 billion.
- A larger gap will need to be covered by increases in productivity, a deterioration in the student experience or redirecting the cross-subsidy arising from international student fee income.
- If international student fees are used to fill in – or merely reduce – a bigger gap in the funding of home students, they will no longer be available to cross-subsidise research, meaning the annual research deficit in England and Northern Ireland alone could rise to £4.9 billion. Teaching and research could suffer.
- This will make it very challenging to reach the Government's target of spending 2.4% of GDP on R&D by 2027 and more afterwards, especially when combined with other potential obstacles.

- The splitting of teaching from research in Whitehall, with a different Minister and Department for each, could hamper a joined-up approach to the different activities undertaken by higher education institutions.
- An increase in overseas students could relieve some of the financial pressures but is not inevitable, given international competition, changing geopolitics and the Home Office's general approach in recent years to international students.
- If policymakers want to hold down – or reduce – tuition fees, preside over further improvements to the student experience and ensure much greater R&D spending, they are likely to need to spend more than planned.

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1. Surpluses and deficits

The latest official data show universities make a sizeable financial surplus from teaching international students but also that they make an even greater loss on research.

- In 2017/18, higher education institutions in England and Northern Ireland had an income of £13,158 million for teaching home and EU students, while the related 'TRAC full economic costs' were £13,392. The cost of educating home students, which used to be covered in full, therefore produced a modest deficit of £234 million or 1.8%. Put another way, **only 98.3% of the teaching costs for home and EU students were covered.**
- The same institutions received income of £4,919 million for teaching international students whereas the cost of this activity was believed to be £3,530 million. So there was a substantial surplus of £1,389 million or 28.2%. **Cost recovery on educating international students ran at 139.3%.**
- For research, the institutions received £8,497 million but their costs were £12,239 million. Few research projects cover their own costs, so a substantial deficit of £3,742 million remained (44.0%) – even after accounting for public spending of £1,646 million on recurrent quality-related (QR) research funding, which is not assigned to specific projects.

Cost recovery ranged from just 16.8% for institutions' own-funded research to 77.7% for industry-sponsored research but **cost recovery for research overall was 69.4%**.²

So, overall, teaching creates a clear surplus, at least in relation to international students – as also occurs in other countries.³ International students strengthen the UK's university sector by diversifying campuses and boosting income.

Despite the importance of university research in furthering knowledge, tackling the world's great challenges and stimulating economic activity, it is the only major class of activity that universities undertake which loses significant sums of money. Unlike for teaching, in research there is not any one area of activity that makes a surplus.

This underfunding reflects public opinion of universities: 'when the public thinks about universities and what they do, they mostly think about undergraduate teaching.'⁴ Views towards research tend to be positive even though the importance is often forgotten:

*research is rarely front of mind; however, when presented with information about university research, the public are overwhelmingly positive about it.*⁵

The fact that research is a lower priority for voters helps ensure it is underfunded compared to other areas of public spending.

2. Cross-subsidies

The annual surplus on teaching in England and Northern Ireland, after removing the small deficit on teaching home and EU students that has arisen in recent years, amounts to £1,155 million. This contributes to the shortfall in research funding, although it makes up less than one-half of the gap.

Other income also helps reduce the depth of the hole, particularly 'non-commercial activity' (such as investments, donations and endowments), which was worth £938 million in 2017/18. However, even after all other income is taken into account, the net shortfall facing institutions remains at £1,442 million.

Back in 2017, the Director of Research at the LSE, David Coombe, highlighted in a HEPI Report 'the alarm that UK research cannot continue to be funded on such unsustainable principles.'⁶ Yet, afterwards, the problems became worse, with – for example – cost recovery for all activity across UK higher education institutions running at 96.7% in 2014/15 compared to 95.7% three years on. For research alone, cost recovery peaked at 77.8% in 2010/11 but fell to 72.9% in 2014/15 and fell further to 69.4% by 2017/18.

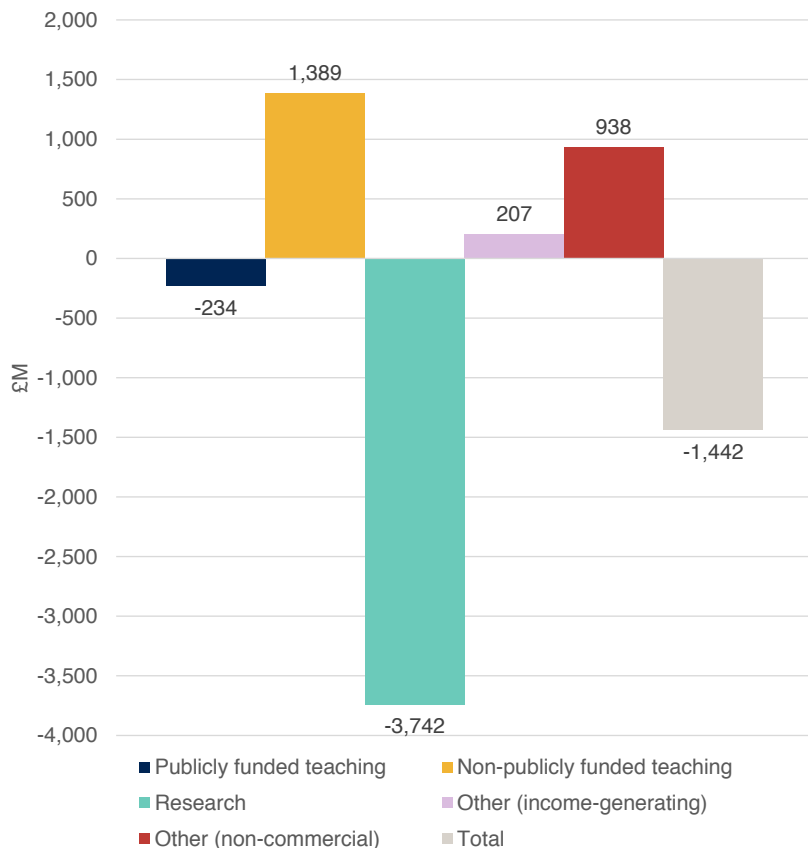
However, because the higher education sector encompasses diverse institutions, the impact is not uniform; it is felt differently at, say, a teaching-intensive university than at a research-intensive university.

In 2017/18, there were over one-quarter of a million (272,000) non-EU international students in England and Northern Ireland. On average, each one paid £5,100 more than it cost to educate them and around £4,250 of this went towards reducing the deficit on research.⁷

The picture for the whole UK is comparable to that for just England and Northern Ireland. Across the UK as a whole, there were 326,000 non-EU international students in 2017/18 and a surplus on their fees of £1,627 million – or £1,274 million after removing the deficit on teaching home students. This suggests that, on average, each one paid £5,100 more than it cost to educate them each year and around £4,000 towards reducing the deficit on research.

As international students stay, on average, for over two years, the average total contribution of each international student to UK research is much greater than annual figures suggest.

Surplus / deficit by activity, 2017/18 (England and Northern Ireland)



Source: https://www.officeforstudents.org.uk/media/33c4dc91-705b-4321-a4a9-3f712f8a3fc8/annual-trac-2017-18_sector-summary-and-analysis-by-trac-peer-group.pdf

3. Uncertainties

In the sober words of the Office for Students, 'Higher education providers in England are operating in a highly uncertain policy and economic environment.'⁸ This is challenging in part because universities are typically large institutions, employing thousands of staff, educating tens of thousands of students and serving as local economic and cultural anchors for their communities. Their planning horizon is typically and necessarily seven-to-ten years or even longer.

Policymakers have added to the uncertainty. For example, in late 2017, Theresa May's Government established an official Review of Post-18 Education and Funding in England, into which an independent panel under Philip Augar fed in their views.⁹ The Augar panel recommended a reduction in the undergraduate tuition fee cap for full-time students in England from £9,250 to £7,500. Theresa May broadly welcomed it, though we still do not know how this proposal is regarded by Boris Johnson's Government.

Although Augar was an England-only review, its implementation would have significant consequences for the rest of the UK. For example, were fees to be reduced in England and were the funding gap to be filled in by extra public funding as recommended in the Augar report, then the amount of public expenditure allocated to Northern Ireland, Scotland and Wales would also increase – although there is no guarantee that the extra funds would be spent on higher education rather than other priorities.

An official response to Augar's recommendations is now due at the time of the next Spending Review. This means people who were starting a three-year undergraduate degree when the Review was first announced are likely to have graduated by the time the Government have outlined their thinking.

The impact of Brexit is perhaps the biggest unknown. The range of uncertainty related to Brexit is wide for both teaching and research, as shown in the box.

What might Brexit mean for student fees?

Modelling suggests more than a halving in the number of students in the UK from other EU countries but a modest increase in the amount paid in fees by overseas students if people from EU member states start paying the higher fees applied to other international students.

Yet events could turn out differently for at least two reasons. First, a historical precedent suggests the number of students arriving in the UK from other countries could increase if universities feel confident this could produce a financial surplus. In other words, universities might work harder to recruit students from EU member states if they can charge them the full economic cost and more and then use the surplus to cross-subsidise other activity, principally research.

Secondly, the EU could try and insist on continued access to our higher education institutions at preferential rates as part of the trade negotiations, and it is even possible that other countries beyond the EU will look for similar arrangements as part of their own trade deals.

Sources:

<https://www.hepi.ac.uk/2017/01/12/universities-lose-students-gaining-financially-brexit-new-restrictions-international-students-cost-uk-economy-additional-2-billion-year/>

<https://www.hepi.ac.uk/wp-content/uploads/2019/08/Two-sides-of-the-same-coin-Brexit-and-future-student-demand.pdf>;

<https://www.hepi.ac.uk/2020/02/11/the-future-of-higher-education-and-the-implications-for-students/>

4. Reduced per student funding

There is, however, one certainty.

The amount of funding for each home student, which comprises tuition fees and public funding for teaching and is labelled 'the unit of resource', is expected to fall. In 2019/20, the annual unit of resource stood at £9,161 in 2019 prices, which is lower than for the rest of the post-2012 period since 2012 (when the full-time home undergraduate fee cap in England rose to £9,000) but higher than in some earlier years – for example, it was £9,831 in 2015/16 but only £8,006 in 2011/12. Even the best-case scenario outlined in the Augar report, in which any reduction in fees is entirely made up by taxpayers via HM Treasury, envisages 'a real terms reduction of 8 per cent between 2019/20 and 2022/23'.¹⁰

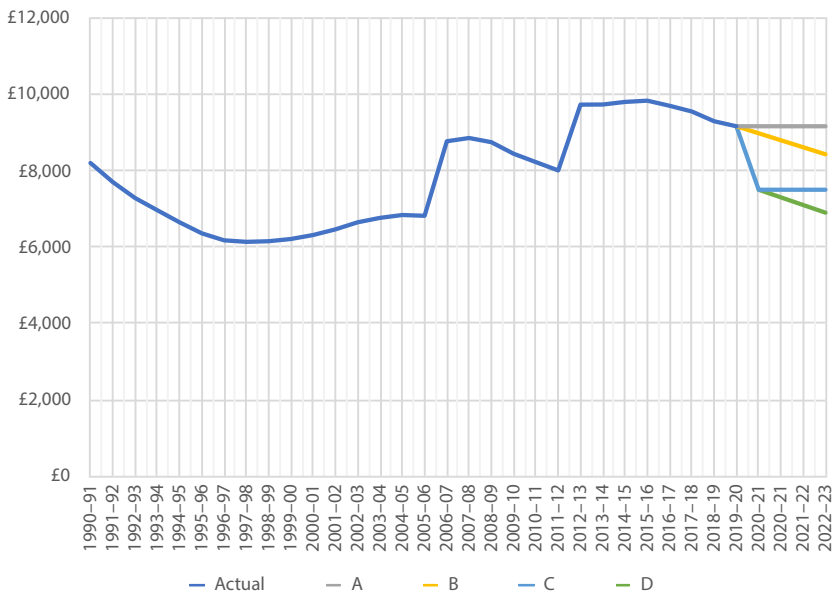
This would remove much of the increase in funding that occurred as a result of the near tripling of tuition fees in 2012. The funding position in 2019/20 was 10% higher than in 1990/91, so it nearly reverts to the funding position of three decades earlier, at the start of the 1990s (which was itself considerably lower than in preceding years).¹¹

The chart models four scenarios.

- A: Tuition income for each student remains at its 2019/20 value in real terms (increasing with inflation), and stays worth £9,161 for each home student until 2022/23.
- B: Tuition income for each student remains at the 2019/20 level in cash terms but this equates to a gradual fall in real value due to inflation to £8,428 by 2022/23.
- C: Tuition income for each student falls to £7,500 from 2020/21 but thereafter rises in line with inflation, maintaining its real value at £7,500 until 2022/23.

- D: Tuition income for each student falls to £7,500 from 2020/21 and in real terms to £6,900 by 2022/23.

Total teaching resources provided per student (2019 prices)



Source:

Based on <https://www.ifs.org.uk/uploads/R162-Data-tables.xlsx>

Assuming the true cost of educating each student does not change, then scenarios B, C and D would cause a bigger shortfall from teaching home students.

- Under scenario B, resources would need to be found to fill in a new £730 funding gap for each student in 2022/23.
- Under scenario C, resources would need to be found to fill in the £1,660 funding gap for each student in 2022/23.

- Under scenario D, resources would need to be found to fill in the £2,260 funding gap for each student in 2022/23.

There are around one million full-time first-time home undergraduate students studying in England.¹² So the annual size of the additional shortfall on teaching them would be:

- £0.7 billion in scenario B;
- £1.7 billion in scenario C; and
- £2.3 billion in scenario D.

These figures exclude other issues, such as the shortfall relating to part-time students.

5. Options

The Government is committed to a big increase in research spending, as outlined in the box overleaf.

If there is a bigger shortfall in university finances as a result of reductions in the amount of money available to educate home undergraduates, then there are three options for closing the gap:

- i. material improvements in productivity;
- ii. a significant deterioration in the student experience, with less teaching, larger classes and / or poorer facilities; and
- iii. an end to the substantial cross-subsidy from teaching international students to research and instead using the surplus from this activity to subsidise teaching home students.

The Government's plans for increasing R&D spending to 2.4%

The UK currently invests a smaller proportion of national wealth than many competitor countries on research and development (R&D) and continues to lag far behind the average for the OECD. However, the Government has promised to double government research and development spending to £18 billion within five years: 'We are committing to the fastest ever increase in domestic public R&D spending, including in basic science research to meet our target of 2.4% of GDP being spent on R&D across the economy.' If the journey to £18 billion is a smooth one, then it represents an increase of public spending on R&D of around 15% annually over five years.

However, this is not necessarily the end goal. Previously, Ministers said the 2.4% goal was an interim target and the 2017 Conservative manifesto additionally spoke of 'a longer-term goal of three per cent.' More recently, Sir Patrick Vallance, the Government's Chief Scientific Adviser, has confirmed the need 'to get to 2.4% of GDP and beyond in terms of research investment'.

HEPI has previously argued that the higher education sector should focus more on the 3.0% target than the 2.4% target to encourage more substantial progress.

Sources:

https://assets-global.website-files.com/5da42e2cae7ebd3f8bde353c/5dda924905da-587992a064ba_Conservative%202019%20Manifesto.pdf

<https://s3.eu-west-2.amazonaws.com/conservative-party-manifestos/Forward+Together++Our+Plan+for+a+Stronger+Britain+and+a+More+Prosperous....pdf>

<http://www.sciencecampaign.org.uk/engaging-with-policy/events/annual-lecture-2019.html>

<https://www.hepi.ac.uk/2019/06/28/forget-the-2-4-target-for-research-and-development-spending/>

The first two of these options offer limited scope.

- Improved productivity is notoriously difficult to deliver in education, especially when the nature of your student body

is diversifying to include more students from previously under-represented groups. Recent waves of industrial action also show some of the potential barriers against doing things differently.

- Policymakers often express concerns that the incentives for good teaching have been much too weak and need to be strengthened, which – for example – is why they introduced the Teaching Excellence and Student Outcomes Framework (TEF).

So it seems most likely that the third option will need to take the strain. Indeed, even if the entire (£1,389 million) surplus from international student fees in England and Northern Ireland were used to cross-subsidise home students, rather than the current much more limited figure of £234 million, then it might not be enough to bridge the gap.

Both teaching and research would suffer if this were to happen. The shortfall on research funding in England and Northern Ireland would rise by 31%, from around £3.7 billion to around £4.9 billion. While this gap could be more than covered by the proposed increase in public spending on R&D from £9 billion to £18 billion, the additionality of the extra spending would be severely reduced.

The Government envisages the extra public spending assigned to research ‘crowding in’ substantial extra private funding. Yet it is hard to see how this can happen at an appropriate scale if the surplus from international student fees that currently contributes towards research has to be assigned for new subsidies for home students.

Although this paper focuses primarily on England (because the Augar report’s recommendations on fees only apply to

England), the story is not dissimilar across the UK. For example:

- in September 2019, Audit Scotland's report on the *Finances of Scottish Universities* showed that Scotland's universities on average recovered a lower proportion of the costs of teaching home students than their counterparts in England but more of the costs of research;
- Audit Scotland also noted that the University of Dundee 'has made a strategic decision that it will not target further growth in research, because the university deemed it not to be financially sustainable.'¹³

Expanding loss-making activity merely increases any losses.

6. Other barriers to 2.4%

The promised increases in spending on research represent a huge amount of money, but the commitments are relatively uncontroversial and enjoy support across the political spectrum – indeed, there is 'an extraordinary cross-party agreement', according to the former Minister for Universities and Science, Lord Willetts.¹⁴ So, in one sense, it should be relatively easy to make progress.

In the past, HEPI has recommended three policies to ensure progress towards the 2.4%:

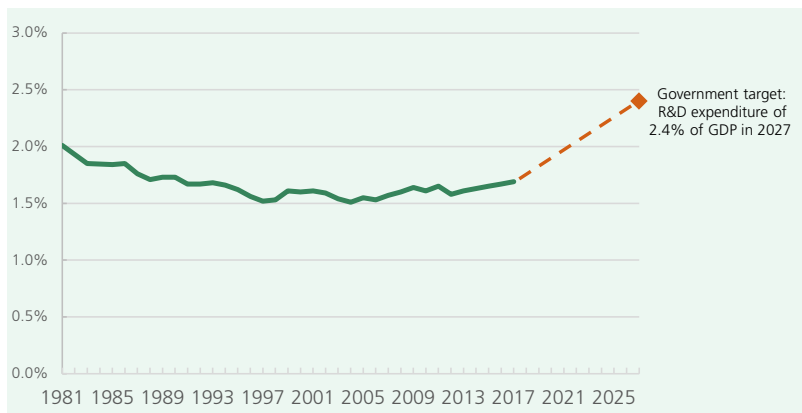
- i. increase QR funding by £1 billion a year as a way of filling in the sustainability gap and to keep up strong regional capacity;
- ii. raise charity QR funding to encourage more university-charity collaboration; and

- iii. publish clear roadmaps for increasing the proportion of GDP spent on research and development.¹⁵

We have been here before. Back in 2004, the then Government's *Ten Year Science and Innovation Framework* set a target of increasing R&D investment as a proportion of national income to 2.5% by 2014. Over the period in question, the proportion of national income spent on R&D increased, but only from 1.5% (£334 per head) to 1.6% (£469 per head). Afterwards, it grew further but only to 1.7% (or £527 per head).

R&D spending as a proportion of GDP remains slightly lower than it was back in 1990 and much lower than it was at the start of the 1980s. However, as the country has become richer during this period, the total amount spent has increased by 94%, from £17.9 billion in 1981 to £34.8 billion in 2017/18 (in constant 2017 prices).

UK gross expenditure on research and development (% of GDP)



Source:

<https://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN04223>

The UK is far from alone in failing to achieve its past R&D targets. Research by Adão Carvalho based on 45 different countries and 112 R&D targets found ‘a consistent pattern of failure’, concluding ‘Governments have been promising much more than they are capable of delivering’.¹⁶

Aside from the possibility of an end to cross-subsidies from teaching to research, there are a number of other factors that could help ensure the latest R&D targets are missed.

- **Sluggish private spending:** The R&D targets assume that private spending will increase significantly as public spending goes up. There is good evidence to suggest that this will occur, but it is not guaranteed to happen by as much as is hoped.¹⁷
- **Brexit:** The UK has been a net beneficiary of EU research spending, meaning we receive more than we put in, due to the excellence of UK research. The Government has previously expressed a clear preference to be an associate member of EU research funding arrangements, but it remains unclear what will happen at the end of the Brexit transition period.¹⁸
- **More urgent political priorities:** Research is by its very nature slow and iterative. Often, discoveries turn out to have a different purpose to the one originally envisaged. It all takes time. Other political priorities can have greater urgency and be more salient. These can be emergencies, responses to economic downturns, healthcare crises or concerns about other public priorities, such as schooling or defence spending.
- **Nimbyism:** Public opposition to vital infrastructure improvements – for example against the proposed improved links in the Arc between Oxford and Cambridge

to join up the so-called 'golden triangle' – could make the UK less attractive than other destinations.¹⁹

- **The pub test:** Greater political involvement in research spending decisions could herald 'the pub test', whereby (as has occurred in Australia) some research is blocked for seeming too far away from the priorities of the general public.²⁰

7. Conclusion

Over recent years, there have been calls from Government, regulators and sector bodies (including HEPI) for more transparency on the use of students' tuition fees, so that existing cross-subsidies within higher education institutions can be seen and the pressure on university budgets better understood.

A detailed report on institutional cross-flows produced in February 2019 by the Financial Sustainability Strategy Group supported more transparency:

It may be a challenge for institutions to build understanding and engagement on this issue across the institution, but it is important that staff and students feel able to replicate the constructive, mature discussions about cross-flows that should occur at governing body level.²¹

When interviewing people as a member of the Education Select Committee, the new Minister for Universities Michelle Donelan spoke in favour of greater transparency in the interests of students:

We need to give better transparency, so that the student can make an informed choice. It cannot be fair if one is employing the money differently to the other one,

spending it on core services. One person would leave that university having had more resources spent on them per head.²²

Initially, there was considerable resistance in some parts of the higher education sector to revealing the full uses to which institutional income is put. Even today, practice varies considerably in terms of the utility and accessibility of the information provided.²³ Yet it would be very odd if any institution in any sector that is the size of a typical research-active university did not vire resources between different activities.

Hiding the details means people are less able to see the contribution of cross subsidies within universities to building up and maintaining the strength of UK research and maintaining its international prestige. According to Professor Robert Van de Noort, the Vice-Chancellor of the University of Reading:

astute investment in research leads to stronger reputations and higher rankings in global league tables, which in turn results in an increase in international students who, by paying higher fees, strengthen the financial sustainability of these universities.²⁴

Whitehall changes might make this virtuous circle harder to achieve. Since 2016, higher education has been moved from the old Department for Business, Innovation and Skills (BIS) and split between the Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Education (DfE). Yet it initially remained the responsibility of just one Minister.

A single Minister can bridge gaps between Departments in a way that is harder for two Ministers and three of the last four

incumbents of the joint Minister for Universities and Science role – David Willetts, Jo Johnson and Sam Gyimah – have all publicly warned against splitting the brief.²⁵ Yet since the February 2020 reshuffle, there have been two Ministers in charge, one in each Department. Michelle Donelan and the new Minister for Science, Amanda Solloway, will need to work hard to ensure the joined-up nature of teaching and research inside universities is reflected in Whitehall.

The Government want to see an increase in education export earnings to £35 billion a year by 2030, up from £20 billion in 2016, with 600,000 students hosted in the UK, up from 470,000 in 2017/18.²⁶ These welcome announcements could have educational benefits and soft power benefits, while helping to square the circle financially – so long as the new additional students pay fees at the full international rate rather than the lower home rate.²⁷ If such targets are to be achieved – and, as with R&D, previous targets on international students have been missed – then it might be possible to continue cross-subsidising research from international student fees while also substantially increasing the cross-subsidies for teaching home students.

However, this would make the university sector even more reliant on other countries at a time when there are already fears of over-exposure to fluctuations in geopolitics affecting how many students, especially students from China, wish to pay high fees to study in the UK.²⁸ Moreover, relying more on international student fees to bolster the teaching of home students will always make it harder to realise the R&D target than if all the available cross-subsidies were spent on research.

If policymakers simultaneously wish to hold down – or reduce – tuition fees, oversee further improvements to the student experience and increase spending on research to levels that

are unprecedented in recent times (to 2.4% of GDP), then they are likely to need to find considerably more than the £18 billion they have currently assigned.

Endnotes

- 1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/804975/Understanding_costs_of_undergraduate_provision_in_higher_education.pdf
- 2 All the data are taken from <https://www.officeforstudents.org.uk/media/33c4dc91-705b-4321-a4a9-3f712f8a3fc8/annual-trac-2017-18-sector-summary-and-analysis-by-trac-peer-group.pdf>
- 3 <https://www.cis.org.au/app/uploads/2019/08/ap5.pdf>; <https://grattan.edu.au/wp-content/uploads/2015/10/831-Cash-nexus-report.pdf>
- 4 <https://www.universitiesuk.ac.uk/facts-and-stats/impact-higher-education/Pages/universities-what-the-public-thinks.aspx>
- 5 <https://www.universitiesuk.ac.uk/facts-and-stats/impact-higher-education/Documents/public-perceptions-uk-universities-nov18.pdf>
- 6 <https://www.hepi.ac.uk/wp-content/uploads/2017/11/HEPI-How-much-is-too-much-Report-100-FINAL.pdf>
- 7 In 2017, using older data and a different methodology, HEPI calculated the figure across the whole UK at £3,770. See <https://www.hepi.ac.uk/wp-content/uploads/2017/11/HEPI-How-much-is-too-much-Report-100-FINAL.pdf>
- 8 <https://www.officeforstudents.org.uk/media/cf54b6ee-714e-45c3-ade9-56bc685b861d/report-on-financial-sustainability-of-higher-education-providers-in-england.pdf>
- 9 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805127/Review_of_post_18_education_and_funding.pdf
- 10 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805127/Review_of_post_18_education_and_funding.pdf
- 11 <https://www.tandfonline.com/doi/abs/10.1080/13619462.2013.783418>

- 12 <https://www.hesa.ac.uk/data-and-analysis/students/where-from>
- 13 https://www.audit-scotland.gov.uk/uploads/docs/report/2019/nr_190919_finances_universities.pdf
- 14 <https://www.kcl.ac.uk/policy-institute/assets/the-road-to-2.4-per-cent.pdf>
- 15 <https://www.hepi.ac.uk/wp-content/uploads/2017/11/HEPI-How-much-is-too-much-Report-100-FINAL.pdf>
- 16 <https://academic.oup.com/spp/article-abstract/45/3/373/4600797>
- 17 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/438763/bis-15-340-relationship-between-public-and-private-investment-in-R-D.pdf
- 18 <http://www.sciencecampaign.org.uk/asset/58121AE0-A0D4-4502-BBE210B87DFA1321/>; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/844488/Changes_and_Choices.pdf
- 19 <https://www.hepi.ac.uk/2020/01/13/lets-build-a-golden-triangle-before-we-slam-it/>
- 20 <https://www.timeshighereducation.com/opinion/two-cheers-pub-test-academic-research>
- 21 <https://www.officeforstudents.org.uk/media/2afa9afa-063c-4327-88d3-c2350b10f8d6/fssg-understanding-income-cross-flows.pdf>
- 22 <https://www.fenews.co.uk/press-releases/16198-oral-evidence-value-for-money-in-higher-education>
- 23 <https://www.hepi.ac.uk/wp-content/uploads/2018/11/Following-the-pound-1.pdf>
- 24 <https://www.officeforstudents.org.uk/media/2afa9afa-063c-4327-88d3-c2350b10f8d6/fssg-understanding-income-cross-flows.pdf>

- 25 Martin McQuillan, '8am Playbook: Divide and rule', HE from Research Professional, 17 February 2020
- 26 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/799349/International_Education_Strategy_Accessible.pdf
- 27 <https://www.hepi.ac.uk/wp-content/uploads/2019/08/Two-sides-of-the-same-coin-Brexit-and-future-student-demand.pdf>
- 28 <https://www.independent.co.uk/news/education/education-news/uk-university-chinese-students-tuition-fees-income-china-liverpool-a9298736.html>; <https://www.studyinternational.com/news/uk-chinese-business-student/>

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University research is underfunded against its true costs to the tune of billions of pounds every year, and much of this gap is made up through the fees of international students.

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