Prosperity and inclusion:
Higher education and the wellbeing economy

Universities Scotland

Universities Scotland's case for the Scottish Government's Resource Spending Review

Building a better nation: Starting from our strengths

This paper sets out Universities Scotland's case to the Scottish Government for the resource spending review for 2023/24 to 2026/27. It responds to the Finance Secretary's call, in launching the 2022 National Strategy for Economic Transformation (NSET), to imagine Scotland as a wellbeing economy in 2032 and as a nation which has made effective use of the next decade to maximise the opportunities that lie before it.

It summarises our ambitions to make a full contribution to the nation's success and the support we will need to achieve that. Universities are powerful forces for prosperity and inclusion for our nation, its cities and its regions. The full breadth of our social and economic contribution goes far beyond what can be measured but the metrics capture:

16.4% of Scottish undergraduate entrants to university are from the 20% most disadvantaged backgrounds, putting Scotland on track to achieve hugely ambitious social mobility goals by 2030.	For every 1,000 graduates, the Scottish Government gains £22.4 million in additional income tax contributions.[1]	Our graduates go direct into skilled jobs. 90% of STEM are in skilled jobs within six months as are 87% of graduates of other disciplines.[2]
Scotland's universities made an economic contribution of £15.3 billion to the UK economy in 2019/20.[3] For every £1 million spent by higher education institutions in Scotland, a further £1.8 million is generated in the Scottish economy and £2.5 million in the UK economy as a whole.[4]	£5.8 billion of the £15.3billion economic impact is from research and knowledge exchange activity.	Public investment in university research crowds in private investment, generating a bigger economic return with a multiplier of 8:1. For every £1 million of public funds invested into university research, there is an economic return of £8.1 million.
University exports of education, research and commercialisation add £1.9 billion to the economy.[5]	There are around 1,240 active university spin-out companies in Scotland generating around £613 million. This is 19% of the UK total.[6]	For every person employed by a Scottish university, another job is supported elsewhere in the UK economy through direct, indirect and induced effects. 77% of these jobs are in Scotland.

[1] Biggar Economics (2020) *Universities in Advanced Economies. Recovery and Transformation, Productivity Growth & Fiscal Returns.*

[2] Higher Education Graduate Outcomes Statistics: UK, 2018/19 - Outcomes by subject studied. Published 2021.

[3] London Economics (2022). This is the direct indirect and induced effects of universities' expenditure and the impact of research activity. It does not include international student recruitment.

[4] London Economics (2022). This takes account of university expenditure on staff and non-staff expenditure only and as such it is not a complete picture of the economic impact of HE. It does not take account of the economic impact of international students or the lifetime productivity gains that the Scottish economy generates through enhanced earnings and taxation receipts.

[5] Scottish Government A Trading Nation

[6] Scottish Funding Council (2021) *Coherence and Sustainability: A Review of Tertiary Education & Research*, paragraph 1.15

Ambitions that are aligned with Scotland's national missions

We are ambitious to make a central contribution to achievement of the national missions. These relate closely to the priorities of the Resource Spending Review.

In brief summary, we are ambitious:

To support progress to meet child poverty targets	**by breaking intergenerational cycles of poverty, through:** • widening access to higher education at all stages of life. • reaching the 2030 target to have 20% of Scottish entrants to from Scotland's most disadvantaged backgrounds. • having the most progressive admissions policies in the UK to support students from disadvantaged background and those with experience of care. • creating pathways to skilled employment, transforming families' prospects. • as anchor institutions in our communities, deploying our capacity and expertise alongside civic partners to transform local economies and create opportunities.
To address climate change	• by delivering research and innovation that enables businesses, organisations and Government to tackle the climate emergency challenge and meet climate responsibilities. • by catalysing the growth of new industries such as green hydrogen to seize the opportunities that exist in the journey to net zero. Universities will be a major partner in the clusters around green industries that attract domestic and international investment and create high-value and sustainable jobs in our regions. • as a research partner to nations in the Global South, supporting the achievement of sustainable development goals. The contribution that Scotland's research makes to the sustainable development goals is highly regarded by the international research community and is cited twice as much as the global average.[7] • by being the innovation partner for Scotland's SMEs, working with them to create new products and processes and adapt their business models to thrive in a green economy. • by education that integrates sustainability widely throughout the curriculum so all future cohorts are environmentally literate and our graduates take that into all professions. • by being at the centre of work with industry and civic Scotland to build a just transition, where the green jobs of the future are creating inclusive growth. • by meeting the reskilling and upskilling needs of our existing workforce as Scotland's industries adapt and our economy decarbonises. • by making rapid progress as major globalised institutions to net-zero ways of working.

[7] SFC (2022) *Scotland's Research Contribution to National & International Challenges*

To secure a stronger, fairer, greener economy	**by making central contributions to every priority of the National Strategy for Economic Transformation, Delivering Economic Prosperity, including:** **A skilled workforce:** • delivering responsive and future-proof graduates and shorter skills programmes for the existing workforce. Working in partnership with business, local authorities and colleges, where local and regional workforces need to pivot following continued disruption to industry and the need to decarbonise. • growing Scotland's talent pool and economically active population by retaining more talent from the rest of UK and across the world, who come for higher education and stay as a result of the post study work and the talent attraction programme. **Entrepreneurial people & culture:** • embedding entrepreneurship education for all undergraduates in addition to a new entrepreneurial campus infrastructure to increase the rate of student start-ups. • adding to the existing success of scaleable spin-outs like Exscientia, Novosound, Lifi and Enough. • Growing from Scotland's current research and spinout strengths, which are 19% of the UK total. • Supporting Scotland's infrastructure for enterprise as a major provider of incubator and accelerator spaces. **New market opportunities:** • using the catalytic power of the 2022 REF results and our world-class research[8] to grow Scotland's research competitiveness across the UK, Europe and internationally to lever in more revenue to Scotland. This holds the potential to crowd-in private and other investment, generating a bigger economic return with a multiplier of 8:1. • As noted in the NSET, universities can make a vital contribution to the growth of clusters and thereby: *"attract inward investment, provide opportunities for local businesses and new business creation and attract talent which benefits from multiple employment options and limits risk*".[9] There is vast potential for growth in life sciences, advanced forging and forming, quantum, business informatics, creative industries, and cybersecurity . • growing Scotland's export power, securing greater shares of international markets for R&D and education international students and transnational education based on the world-class appeal of our services. **Productive businesses and regions** • deepening our engagement with our communities, so that our contribution brings wide benefits to our places and their people. • acting as key collaborative partners with government, business and the third sector in places across Scotland to deliver regeneration and sustainable growth.

[8] SFC (2022) *Scotland's Research Contribution to National & International Challenges* Scottish research received 80% more citations in peer reviewed research than the global average.

[9] Scottish Government (2022) *Delivering Economic Prosperity: National Strategy for Economic Transformation* p27

Invest to achieve our ambitions for Scotland's wellbeing economy

We ask for the following additional investment in the first year of the resource spending review, so that we can fulfil our ambitions for the nation's success[10] and for those investments to be sustained in real terms. We have framed this request within the parameters of affordability as the Scottish Government budget is set for a real-terms average growth of 2.4% between 2021/22 and 2024/25.

			Projected GDP deflators & CPI inflation*		
	Rationale	Additional uplift for 2023/24 £	24/25	25/26	26/27
Teaching grant	This represents a £400 increase in every Scottish-domiciled student at university.	55,200,000	1.85%* 1.5%**	1.95%* 1.9%**	2.00%* 2.0%**
Research excellence grant	This could crowd in private investment, generating a bigger economic return with a multiplier of 8:1.	32,100,000			
Research postgraduate grant	An investment in the pipeline of research talent and innovators.	4,000,000			
University innovation fund	This represents a 50% increase to accelerate universities' strength in commercialising outputs	7,650,000			
Upskilling & reskilling	There is strong employer and employee demand for university-run short courses and skills development.	7,000,000			
Total additional resource from 2022/23 baselines		**105,950,000**			

* **GDP deflator projections as of March 2022** ** CPI data from OBR Spring Statement see Table 1.1
We note the current volatility in the rate of inflation which the Bank of England expects to reach >8% in spring 2022.[11]

We hope that investment in 2023/24 at this level can mark the beginning of progressive real-terms increases throughout the period of the Spending Review, towards the levels of investment needed to realise our contribution to Scotland's transformation in full as detailed in Supporting Universities' Contribution to Recovery & Transformation.

Student mobility. We want to see Scotland develop a two-way student mobility scheme that keeps Scotland open to the world after the UK's exit from Erasmus+. We hope to see the resource spending review make sufficient provision for this over the long-term at a proportional equivalent to that available to higher education in Wales in the new Taith scheme.

[10] We have outlined the need in the Research Excellence Grant, Research Postgraduate Grant and University Innovation Fund, which are currently classified as capital investment, because of our understanding that resource funding can be invested this way by political choice and because of the opportunity that 2022 presents in terms of greater leverage and economic impacts from Scottish research following the REF results in May 2022.

[11] Bank of England (2022)

This investment will address challenges and realise opportunities.

The teaching grant

Our ask is for a £400 per student[12] uplift in the unit of teaching resource starting in 2023/24, in year one of the multi-year spending review, which is then maintained in real terms to 2026/27.

This investment will support the Scottish Government's outcomes of:

- breaking the cycle of child poverty through widening access to university and addressing income inequality.[13]
- creating a strong, productive and resilient talent pool of graduates with which to power Scotland's labour force over the next decade.
- economic impact through the additional £22.4 million in additional income tax contributions from every 1,000 graduates.[14]
- ensuring the next decade of graduates all have an entrepreneurial skill-set and an outlook that supports environmental sustainability. This will apply to everyone in addition to more focused support for green skills and start-up/scale-up support for graduate business ideas.
- a stronger economy from increased export of transnational education and international recruitment, markets which are entirely dependent on teaching excellence.

It will help to address some severe challenges facing students:

- **lost learning in school, college and university** risks a scarring effect on individuals. We must act to prevent that, recognising that additional support will be needed to avoid lower rates of retention and completion**.** 80% of students felt that the pandemic had had a negative impact on their learning, and 74% had found it more difficult to stay focussed and engaged.

- **a concerning mental health situation which threatens students' education.** The data is extensive, consistent and cannot be ignored. 36% of students in Scotland's universities reported moderately severe or severe symptoms of depression[15] and over half of the students surveyed indicated that their mental health was worse than it was pre-Covid-19.[16] A paper to the Scottish Government's COVID-19 FE & HE Group highlights the temporary nature of increased funding to support mental health and notes that it is: "*unclear how in the longer-term institutions will be able to fully support those with mental health needs, and to offer equity of access across the education system*."[17]

- **widening access.** Universities are on track to meet ambitious social mobility targets. However, the Commissioner for Fair Access has noted that the "hardest mile" lies ahead.[18] A sample of institutions with distance still to travel to the 2030 target estimate that, over the next eight years to 2030, they will need to increase their investment by an average of 75%, relative to the last five years, to hit the goal of 20% of Scottish higher education students coming from the most

[12] Based on the total number of funded places available to Scottish-domiciled students. The figure of 138,074 funded places (controlled & non-controlled) is taken from Annex B of SFC's 2021/232 Final allocations because it is a final figure for funded student places.
[13] Scottish Government (2022) *Scotland's National Strategy for Economic Transformation Evidence Paper*. Figure 3.

[14] Biggar Economics (2020) *Universities in Advanced Economies. Recovery and Transformation, Productivity Growth & Fiscal Returns.*
[15] Mental Health Foundation (2021) *Thriving Learners: Realising Student Potential and Wellbeing in Scotland*
[16] National Union of Students UK (2020) *Coronavirus and Students Phase 3 Study Mental Health with Demographics*
[17] Scottish Government L (2022) Paper: Wider Harms of the COVID Pandemic on Leaners. Paper to the Scottish Government Advanced Learning Covid Recovery Group on COVID.
[18] Sir Peter Scott (2019) writing in a blog on widening access to higher education on the Scottish Government website.

disadvantaged backgrounds. There is a pipeline issue here too. The pandemic has had a disproportionate impact on those already socio-economically disadvantaged. A much greater proportion of secondary school pupils eligible for free school meals had a probable mental health disorder compared with those who were not eligible (28.3% compared with 12.4%). With significant policy change to admissions already implemented in higher education, getting to the 20% target will take investment in outreach to more schools, supplementary study support, investment in foundation routes and transition support.

The Research Excellence Grant

In a REF results year where the quality of research in Scottish higher education will be peer-evaluated for the first time since 2014, we need to ensure that Scotland stands ready to maximise its position of global excellence and the leverage potential that REG holds.

Our ask is to increase the Research Excellence Grant by £32.1 million in 2023/24, which is then maintained in real terms through to 2026/27.

This investment will support the Scottish Government's objectives of:

- accelerating progress with R&D spend and business R&D. A £32.1 million increase in REG holds the potential to crowd in private investment generating a bigger economic return of £259 million based on a multiplier of 8:1.
- creating clusters of growth around new and emerging industries, catalysing external investment and creating jobs.
- growing the value of foreign direct investment into Scotland where R&D is amongst Scotland's top three activities generating FDI and is rated by investors the as most attractive criteria about the UK.[19]
- economic growth. If Scotland can grow its competitive position as reflected in the proportionate share of UKRI funds from the current rate of 12.9% back to 15.4%, Scotland stands to gain a total economic impact of over £4 billion per year from levering UKRI resources to Scotland. This would be an increase of £640 million over what was achieved in 2019/20.[20]

Research Postgraduate Grant

We are seeking to add £4 million to the Research Postgraduate Grant (which was set at £36.3 million in 2021/22) to invest in the pipeline of talent for Scotland's innovative future. The 2022 results of the Research Excellence Framework offer a major opportunity for Scotland to recruit the best potential research talent from around the world and create the environment for them to build their academic careers here as part of the early-stage ecosystem for research and innovation - and to develop the top-level talent that will drive discovery and innovation.

[19] Ernst & Young (2021) *Scotland Attractiveness Survey.* R&D is equal highest at 68% with access to the European market, quality of life and transport/logistics.

[20] This projection is based on 2019/20 budgets but with UK research budgets projected to grow, if Scotland maintained its 15.4% share, the economic impact and spill overs would be higher still.

University Innovation Fund

We ask the Scottish Government to increase the University Innovation Fund (UIF) by 50%, from £15.3 million in 2022/23 to £22.5 million in 2023/24 and maintain it in real terms until 2026/27. There needs to be greater flexibility in how this funding is spent by institutions, to play to their strengths, provided the aim is on increasing commercial outputs of university research. On average universities recover only 68% of the full economic costs of working with industry. However, they are ambitious to do more both to enhance their own teaching and research activities and to deliver impacts for society and the economy. The UIF is a crucial element in this process, equipping universities to foster and grow partnership with industry and the third sector. The impacts are significant. Universities engage in consultancy, professional development and research projects with over 20,000 Scottish organisations each year and develop and sustain a high proportion of Scotland's business incubator capacity.

The NSET places a significant emphasis on the value Scotland will gain from having more entrepreneurial and innovative people, supported to create new companies and grow them to scale. The Logan review wants more start-ups on the basis that it will take 50 start-ups to get to one scale-up. Scotland's universities have real strength in producing spin-outs. They are the most successful region of the UK and there are notable successes at growing companies to scale from HE spin-out but the UIF is not currently funded at a level to maximise this potential.

The outcome from this investment, alongside universities' engagement with tech scalers and a greater co-ordination of action with the enterprise bodies, will be a step-change on universities' ability to catalyse business growth, with potentially a further 10,000 businesses a year getting help to innovate ideas, products and ways of working. This investment will also lead to a step-change in universities' capacity as Scotland's principal incubator space for innovative new businesses. Through these means we will be a key part of promoting economic growth, with a particular focus on growing a base of innovative Scottish small and medium-sized enterprises, with ambitions to scale-up their impact.

Upskilling and reskilling

The last three years have shown very strong demand for university skills provision through short courses and microcredentials and an agility from universities in meeting that need. This builds on universities' work to ensure that the development of employability skills is integrated deeply into courses at degree level, as well is in shorter courses for upskilling and reskilling.

Interim evaluations from the Funding Council confirm robust demand for short, sharp work-based models and graduate apprenticeships from employers and those already in the workforce. Demand for short new upskilling and reskilling courses was nearly double what could be funded by SFC and the National Transition Training Fund[21].

This agile new provision is principally being developed in areas which business intelligence, including SDS regional and sectoral skills assessments, identify as urgent priorities to meet the needs of a transforming economy including:

- digital skills, across a range of disciplines and professions;
- data science;
- leadership and management skills;

[21] Scottish Funding Council: *The National Transition Training Fund: Year 1, HE overview* [unpublished]

- renewable energy and building a just transition.

Our economy and our workforce will need to continue to pivot over the next decade, as new career opportunities are created through the NSET. Universities want to keep meeting this need and to be able to give employers confidence that we can sustain this provision over the medium-to-long term, to help deepen many of our new work-based models.

Universities' work with employers to develop agile new provision is currently constrained by only having limited and year-to-year funding. This has been an issue, for instance, when negotiating multi-year commitments with employers for Graduate Apprenticeships. We therefore ask for a medium-term commitment of an additional £7 million per year to support upskilling and reskilling over the period of the multi-year spending review to give employers and universities the confidence to invest in developing peoples' skills. This will support economic growth and social inclusion, enabling a wider range of businesses and individuals to develop the skills to succeed in a changing economy.

Without increased real terms investment this ambition is at risk

Higher education is a major asset for Scotland. We provide a public service on which over 215,000 students and a workforce of over 40,000 [22] depend. Our role as an economic and social catalyst in our cities and regions extends much wider.

Public investment in universities' teaching, research and innovation is the foundation on which our wider contribution is built. As with any other part of Scotland's public service, universities require a stable base; the teaching grant and research excellence grant is the foundation on which everything else depends. It is crucial to our ability to be an agile and innovative contributor to Scotland's success and international competitiveness, driving benefits significantly in excess of the value of that initial investment.

We are candid that continued real-terms cuts in Scottish Government funding for university teaching and research, over consecutive years from 2014/15, are putting the breadth of universities' contributions at risk. We have already seen diminishing success in levering in research and innovation investments from outside Scotland, which reduces Scotland's economic growth. We are facing severe challenges meeting students' increased needs while facing year-on-year real terms reductions in funding.

Funding for teaching

The Teaching Grant has been eroded by 14.6% in real terms between 2014/15 and 2022/23.[23] This means £996 less is spent on the education of every Scottish-domiciled undergraduate student on an annual basis[24]. To maintain quality and avoid an impact on our outputs, universities have to generate average cross-subsidies of 20% to address Government under-funding.[25] This declining resource has been unsustainable for a number of years but the next three years will see challenges to universities' ability to generate income for such cross subsidy, a range of student-facing issues that require more investment and rising costs, compounded by a high-inflation economy.

Within the education sector, universities are alone in experiencing a pattern of sustained real-terms decline (see figure 1).

Funding for research

Research is funded at £328m per year below full cost[26] with the difference partly being made up from international student fees and partly from efficiency savings and severely constrained investment in staff and facilities.

The research excellence grant has declined 18.2% in real terms since 2014/15 (see figure 2). Over the same time period, Scotland's universities have won a progressively smaller percentage share of UKRI resources, from 15.4% share to a 12.9% share. For every £1 million in revenue that Scotland's

[22] HESA Staff record 2019-20 Full time equivalent excluding 'atypical' staff

[23] This calculation draws on the March 2022 GDP deflators and the teaching grant allocation in the SFC Indicative allocations for universities for 2022/23.

[24] Baselined to 2014/15.

[25] See Transparent Approach to Costing (TRAC) (sfc.ac.uk) alongside subsequent additional real terms cuts in funding

[26] Scottish Funding Council (2021) *Coherence and Sustainability: A Review of Tertiary Education & Research*, paragraph 6.41

universities miss out on from UKRI, we are losing £12.7 million of economic impact. If Scotland can recover its competitive position back to 15.4% it stands to deliver an additional economic impact of at least £640 million.

Figure 1: **Public investment in higher education since 2014/15 relative to public investment in other levels of education in Scotland.**[27]

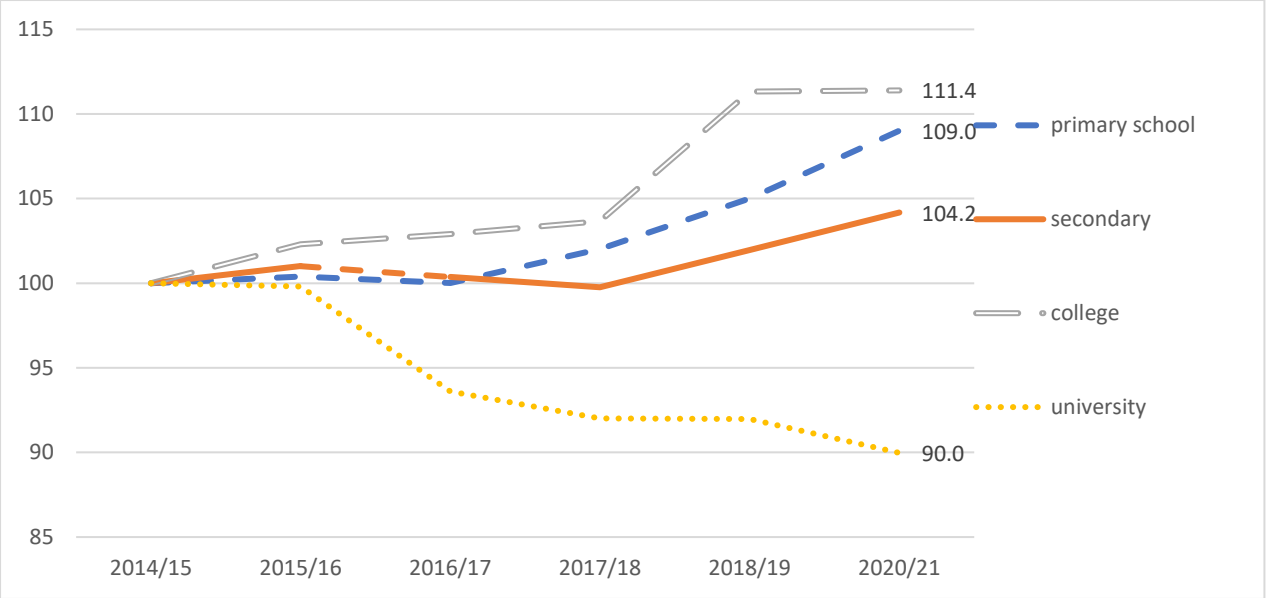
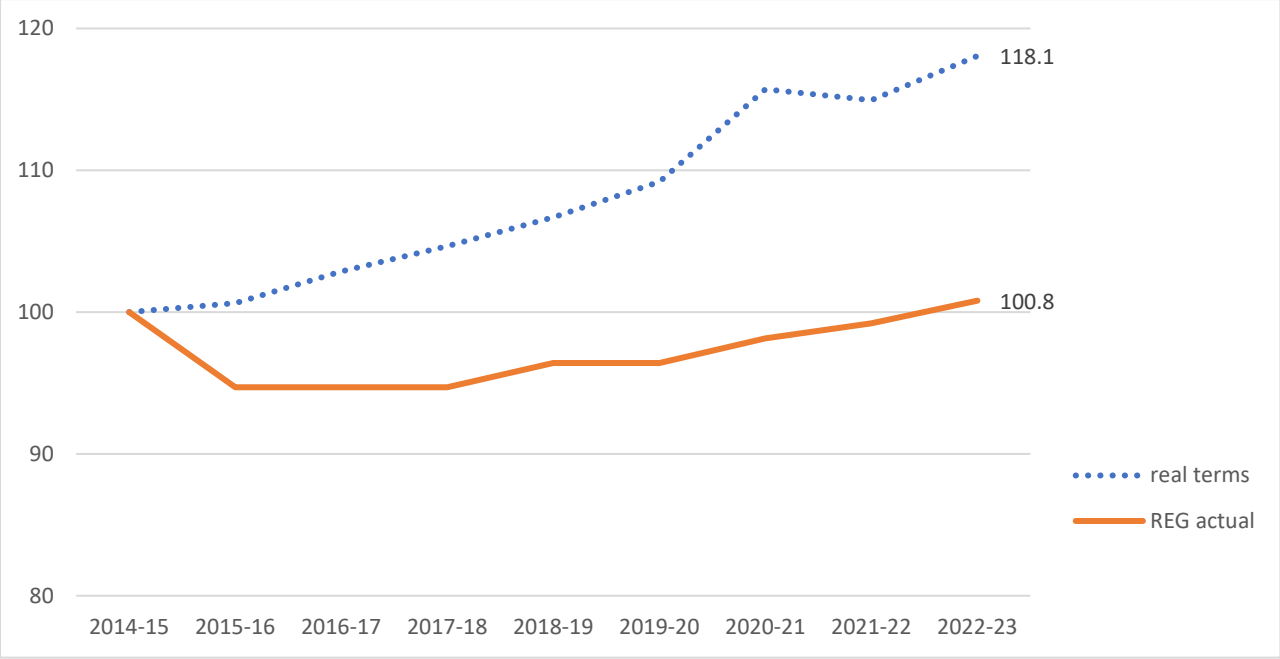


Figure 2: The Research Excellence Grant tracked from a 2014/15 baseline relative to real terms maintenance of REG over the same period.



[27] Data from Scottish Parliament Question S6W 01165

At an economic level:

- for every £1 million drop in higher education spending power, at least a further £1.8 million is lost to the Scottish economy and £2.5 million to the UK economy as a whole.
- for every 100 students who don't reach higher education and don't get the support they need to achieve their learning goals, the Scottish Government loses £2.2m in net present value through the additional income tax contributions of their high-skill human capital.[28]
- for every £1 million reduction in public funding of university research, this would result in a reduction in economic output of £8.1 million.

The impact on lost opportunities for individuals, businesses and communities goes far beyond what can be expressed in these figures.

Conclusion

Universities are a vital source of talent, of new ideas and innovation. We are always ambitious for our students and staff and for the wider social and economic impact we can deliver in Scotland and internationally. Looking to the next decade, we see many opportunities to maximise the potential in our people and the strong partnerships we have with the public and private sector to the benefit of an inclusive, creative, sustainable Scotland. To get there, we need investment in the fundamentals of our contribution to the common good – and to support our agility in seizing opportunities for Scotland and our people. If the Scottish Government can make that commitment to universities in the resource spending review through to 2027, we are clear in our purpose and we are committed to deliver our part of building the nation's inclusive prosperity.

[28] Biggar Economics (2020) *Universities in Advanced Economies. Recovery and Transformation, Productivity Growth & Fiscal Returns.*