

# THE FUNDING CHALLENGE FOR UNIVERSITIES

Higher education – a core strategic asset to the UK

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## Foreword

Higher education delivers real and substantial benefits to the UK. These benefits include: opening the door to better opportunities and life chances for individuals; sustaining a cutting-edge skills base that employers can draw on; and ensuring the UK's economy has the necessary knowledge for long-term growth.

Recent growth in the number of graduates in the UK has led to some concern over whether there are too many students in the system. This argument is short-sighted. The evidence shows that employment and earnings outcomes for graduates remain far better than for those without higher education. There is also a significant risk to the UK's economic prosperity if the future demand of employers for highly skilled individuals is not satisfied. The economic challenge for the UK is to ensure that this demand is met and the economic potential of the UK fulfilled.

Any long-term, sustained increase in the number of graduates has implications for the funding of the higher education sector. This report examines the challenges that funding an increase presents to universities and the government. Key findings include:

- Income flowing from increased numbers under the new fee regime would help institutions cover ongoing costs of provision, assuming real costs are covered by the additional fee income. However, additional funding for capital and infrastructure costs would be needed, if the UK is to continue to provide a high quality, world-class student experience.
- Public sources of funding are significantly constrained in their ability to support an increase in student numbers. The Department for Business, Innovation and Skills (BIS) may have to make cuts of between 15% and 30% from 2014–15 to 2017–18 based on the current fiscal outlook. Any increase in the higher education budget (outside of the student loans) to support an increase in student numbers would result in cuts falling more heavily on other parts of the BIS budget.
- Increased student numbers have implications for the long-term sustainability of the overall loan system. While changes to the current student loan system could be made to reduce the Resource Accounting and Budgeting (RAB) charge, this does not make any extra cash available in the present to fund an increase in student numbers.
- Other countries have used private sources of funding to sustain high levels of expenditure on tertiary education. However, these private sources are not without their problems – particularly in exposing students to potentially higher levels of debt and instability.

Significant challenges for universities and the government exist in order to fund growth in highly skilled individuals at the rate required to sustain the UK's economic prosperity. Any future funding arrangement will also need to promote student accessibility, and ensure that students can obtain funding no matter what their background or intended course of study.

The next stage of Universities UK's work will be to develop practical solutions to help overcome these challenges. It is clear that the UK must rise to these challenges in order to remain a key player on the world stage, and to safeguard our economic future.



**Professor Sir Christopher Snowden**  
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## INTRODUCTION

This report builds on Universities UK's May 2013 publication, *The funding environment for universities: an assessment*<sup>1</sup>, which found that the higher education sector is facing significant financial pressures in the medium term. This report examines the funding challenges to the higher education sector in more detail, and covers the following areas:

1. **The economic challenge:** the economic evidence on the link between the number of graduates and economic growth is reviewed, to assess whether increasing the number of graduates would benefit the UK's economy.
2. **The funding challenge for universities in England:** the feasibility of future expansion in undergraduate student numbers is assessed, given the current income available to institutions through the reformed higher education system, and the level of demand from applicants to enter higher education.
3. **The funding challenge for government:** the impact of the current higher education system on the public finances is outlined. Future trajectories for the Department for Business, Innovation and Skills' (BIS) expenditure are given, under a range of different scenarios, in order to assess the potential for increases in student numbers to be financed by public sources. An overview of options for funding an increase in student numbers is given, including options that increase the future repayments of graduates to government, and options that would redirect funding to support increased numbers.
4. **Funding challenges faced by other countries:** the experience of other countries in financing higher education is reviewed, with a focus on the mix of private and public funding used. The experiences of the United States, Korea and Hungary are analysed in more detail, where private sources to fund higher education are much more significant than in the UK.

The report draws on research commissioned by UUK from the Institute for Fiscal Studies (in Chapter 3), PricewaterhouseCoopers and Demos, and we are grateful to all three organisations for their input.

1. Available at: [www.universitiesuk.ac.uk/highereducation/Pages/FundingEnvironmentUniversities.aspx](http://www.universitiesuk.ac.uk/highereducation/Pages/FundingEnvironmentUniversities.aspx)

# CHAPTER 1:

## THE ECONOMIC CHALLENGE



## 1.1 Higher education, innovation and economic growth

The contribution of higher education to economic growth is broad and multi-faceted. One key aspect is its contribution to the economy's innovative capacity, which underpins economic growth. Higher-level technical skills are crucial to the productivity of the economy, with graduates and postgraduates needed to create new ideas, and to implement and adopt new technologies. In addition, managerial, organisational and marketing skills are necessary to innovate successfully, with graduates and postgraduates needed to discover and implement new ways of working.

The macroeconomic evidence to demonstrate the link between education and growth is well established, with a number of key contributions analysing the role of higher education and its impact on growth and the productive capacity of the economy. There is evidence of a positive relationship between enrolment rates in higher education and economic growth.<sup>2</sup> There is also evidence to suggest that the roles of different levels of education vary according to the stage of growth that a country is at – with the primary level being most important in less-developed countries, but the tertiary level being most important in OECD countries.<sup>3</sup> A recent

study commissioned by BIS, carried out by the National Institute of Economic and Social Research, estimates that graduate skills accumulation contributed to around 20% of GDP growth in the UK from 1982 to 2005.<sup>4</sup> The study estimates that a 1% rise in the share of the workforce with a university education raises the level of productivity by between 0.2 and 0.5% in the long run. This has the implication that in the UK, between 1994 and 2005, one third of the growth in average labour productivity can be attributed to the accumulation of graduate skills in the labour force.

As other countries grow to compete with the UK, it is vital that the UK's capacity to innovate is sustained, in order to continue the economic recovery and for future economic growth. The UK Commission for Employment and Skills (UKCES) reports prospective skills needs, which reflect future demand from employers.<sup>5</sup> Table 1.1 shows significant future demand for corporate managers; science, technology, engineering and mathematics (STEM) professionals; teaching and research professionals; and business and public service professionals. These roles employ high proportions of graduates: 86% of professionals are graduates, as are over half of those employed as managers. It is estimated that over 80% of new jobs created by 2020 will be in occupations with high concentrations of graduates.

**Table 1.1: High growth occupations and associated sectors**

Occupations	Sectors
<b>Corporate managers and STEM professionals</b>	Computing and related services Business services
<b>Corporate managers</b>	Health and social work Distribution related to motors and wholesale distribution Transport and storage Professional services Public administration/defence Education
<b>Teaching and research professionals</b>	Education Computing
<b>Business and public service professionals</b>	Health and social work Banking/insurance

Source: UKCES

2. Keller K (2006) 'Investments in primary, secondary, and higher education and the effects on economic growth' *Contemporary Economic Policy* vol 24, no.1, p.18-34

3. Gemmell N (1996) 'Evaluating the impacts of human capital stocks and accumulation on economic growth: some new evidence' *Oxford Bulletin of Economics and Statistics* 58,1

4. BIS (2013) *The relationship between graduates and economic growth across countries – BIS research paper No. 110*

5. UKCES (2010) *Skills for Jobs: Today and Tomorrow – the National Skills Audit for England 2010*

While this demonstrates that there is significant future demand for graduate-level skills, it would be over-simplistic to assume a direct causality between increasing the number of graduates and increasing economic growth. Policies that support increases in the number of graduates need to exist alongside policies that support favourable conditions for innovation, including labour market and industrial policies. Increasing the number of graduates is a necessary, though not sufficient, condition for economic growth.<sup>6</sup>

Nevertheless, there is a significant risk to the UK's future economic prosperity if the future demand from employers for highly skilled individuals is not met. Employers themselves have limited incentives to invest significantly in skills provision, due to the mobility of the workforce across different employers. Therefore there is a strong rationale for highly-skilled individuals to develop their skills further through the higher education system.

While this section has focused on the links between higher education, innovation and economic growth, it should be kept in mind that the higher education system has objectives beyond developing skills and benefits beyond economic growth – the value of higher education lies in both the economic and social benefits to individuals. Higher education can improve opportunities and life chances for individuals, thereby creating knock-on benefits for community cohesion and social inclusion. Higher education has a significant role to play in improving social mobility.

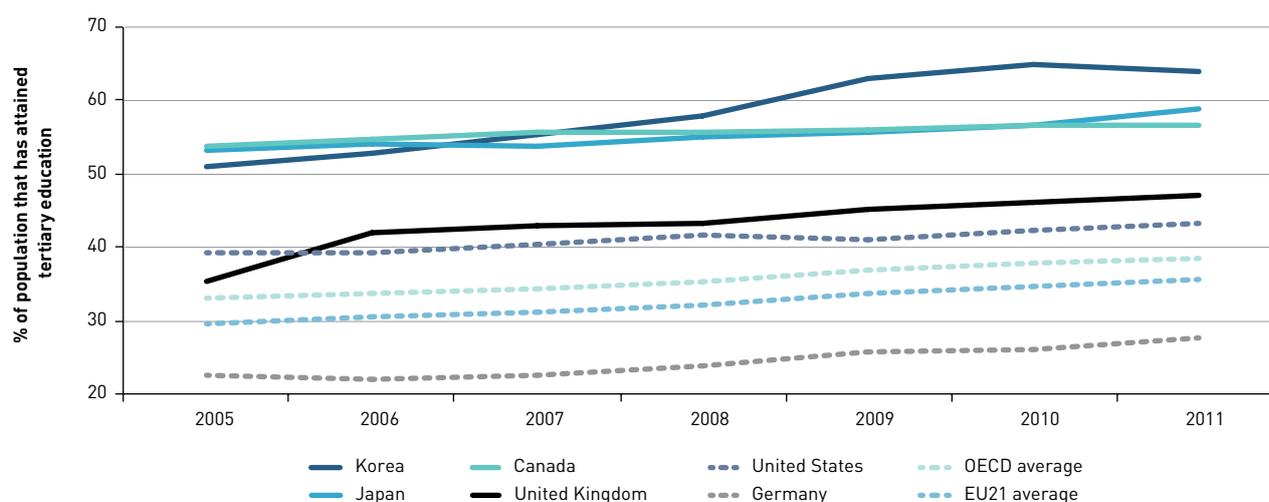
The 1963 Robbins Report stated that the four main objectives of the UK's higher education system should be:

... instruction in skills; the promotion of the general powers of the mind so as to produce not mere specialists but rather cultivated men and women; to maintain research in balance with teaching, since teaching should not be separated from the advancement of learning and the search for truth; and to transmit a common culture and common standards of citizenship.<sup>7</sup>

## 1.2. Historical trends and international comparisons of higher education attainment

While there is an economic rationale for increasing the number of graduates to support the UK's future economic growth and competitiveness, it should not be forgotten that the UK has experienced strong growth in the number of graduates in the recent past. Figure 1.1 shows that while only 35% of the population attained tertiary education in 2005, this had increased to 47% by 2011. This growth has been reflected in other OECD and EU countries, with the OECD and EU averages also increasing over this period. Figure 1.2 shows that while the UK has a relatively high proportion of the 25 to 34 age group attaining tertiary education, so too do countries such as Korea, Canada, Norway, New Zealand and France.

Figure 1.1: Trends in tertiary education attainment, for 25–34 age group, 2005–2011



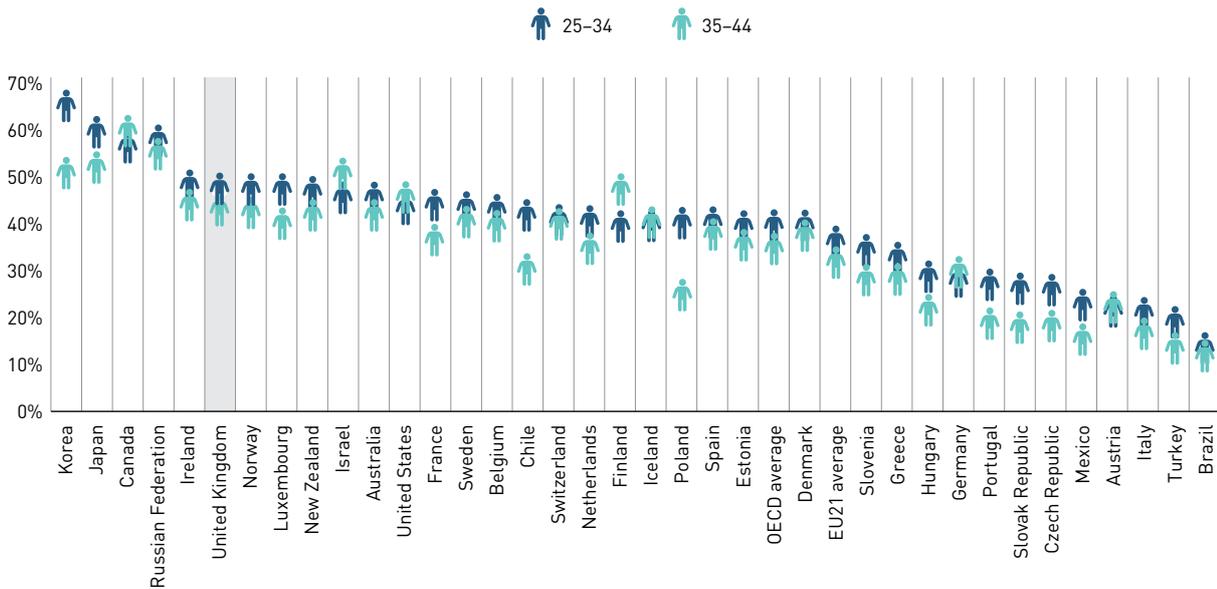
Source: OECD

Note: EU21 refers to the 21 countries that are members of both the European Union and the OECD.

6. Wolf A (2002) *Does Education Matter?*

7. *Report of the Committee appointed by the Prime Minister under the Chair of Lord Robbins, 1963*

Figure 1.2: Percentage of population that has attained tertiary education, by age group, 2011



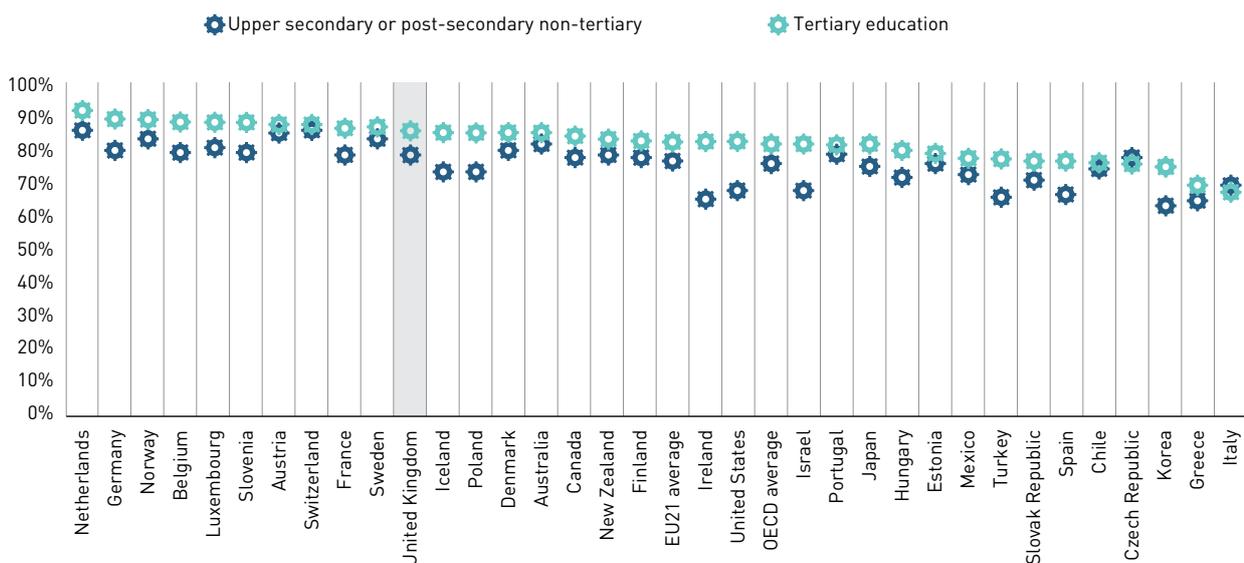
Source: OECD

Note: EU21 refers to the 21 countries that are members of both the European Union and the OECD.

Given the strong growth in the number of students in the UK, there have been concerns about an over-supply of graduates and the resulting employment and earnings prospects for graduates. Figure 1.3 shows that the employment rates for those attaining tertiary education are consistently higher across the OECD than for those without tertiary education. In the UK, the employment rate for those with tertiary education is 86%, and 78% for those with upper

secondary education. Employment rates may not necessarily reflect the type of work that graduates are taking on – there are reports of some graduates entering low-skilled jobs.<sup>8</sup> However, the Higher Education Careers Service Unit reports that while graduates may enter jobs that do not necessarily require a degree, most graduates progress quickly in organisations, and into roles that do require a degree.<sup>9</sup>

Figure 1.3: Employment rates of 25–34 age group, by educational attainment, 2011



Source: OECD

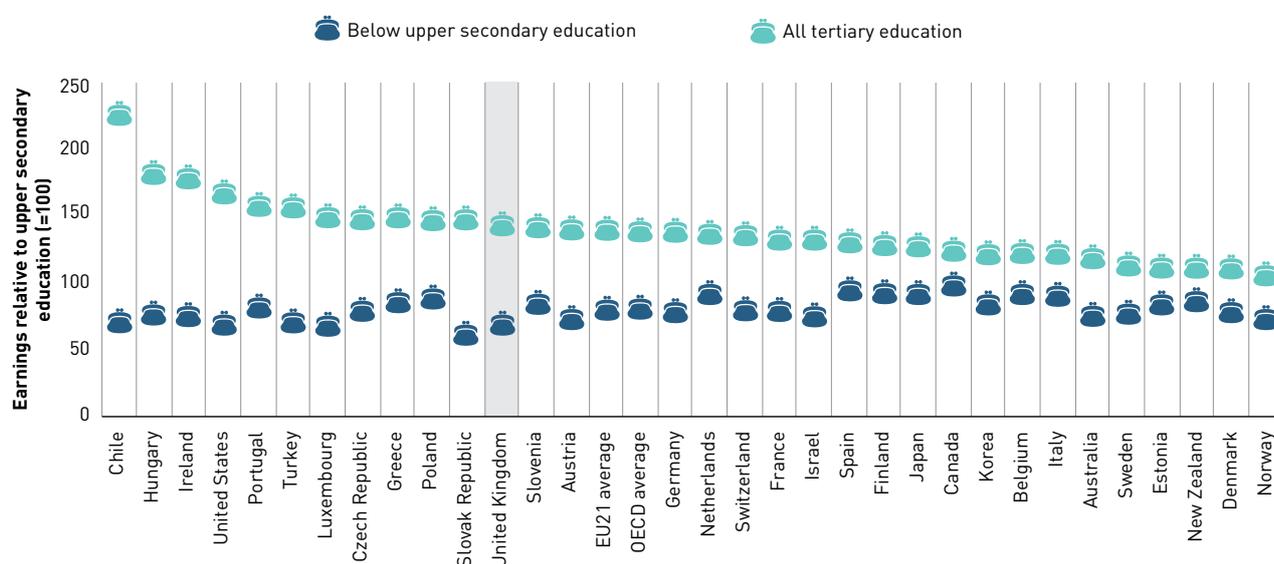
8. See for example: [www.telegraph.co.uk/education/educationnews/9599883/Graduates-fill-menial-jobs-as-post-university-unemployment-rises.html](http://www.telegraph.co.uk/education/educationnews/9599883/Graduates-fill-menial-jobs-as-post-university-unemployment-rises.html)

9. HECSU (2012) *What Graduates Do*

Not only is there is a differential across OECD countries between the employment rates of those with and without tertiary education, there is also a pronounced gap between the earnings of those with tertiary education and those without. Figure 1.4 shows that in the UK, in the 25 to 34 age group, those with tertiary education earn 45% more than those without. This is greater in the UK than on average across the OECD, where those with tertiary education earn around 40% more than those without. A report prepared for BIS shows that in the UK, female students who progress to university can expect to increase their lifetime earnings by £250,000, whereas male students can expect an increase of £165,000.<sup>10</sup>

Therefore the evidence shows that even taking into account recent growth in the number of graduates in the UK, the differential between employment and earnings prospects for graduates compared with those without higher education remains pronounced. This would suggest the UK is not experiencing an over-supply of graduates. Combined with evidence suggesting that there will be significant future demand for graduate-level skills, it means that there may be scope for the number of graduates to increase further, in order to support the UK's capacity for future economic growth and competitiveness, as well as increasing economic and social benefits to individuals.

Figure 1.4: Relative earnings of 25–34 age group, by educational attainment, 2011



Source: OECD

10. BIS (2013) *The impact of university degrees on the lifecycle of earnings: some further analysis – BIS research paper No. 112*

# CHAPTER 2:

## THE FUNDING CHALLENGE FOR UNIVERSITIES IN ENGLAND

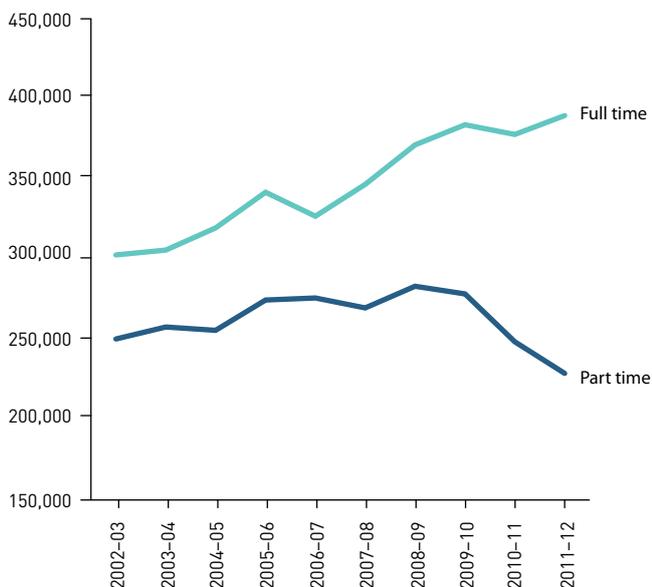


This chapter outlines historical trends in enrolments and funding for higher education institutions in England, and assesses the feasibility of future expansion in home and EU undergraduate full-time student numbers under the current funding system. The main focus is on English higher education institutions, due to the divergence in funding policies across the devolved administrations. UUK's May 2013 report outlined the differing policies and arrangements operating across England, Scotland, Wales and Northern Ireland.<sup>11</sup>

## 2.1 Historical trends in enrolments and the student funding reforms in 2012–13

Since 2002–03, the number of first-year, full-time UK- and EU-domiciled enrolments to undergraduate courses at English higher education institutions has steadily increased, albeit with a dip following the introduction of variable fees in 2006–07. Controls have been in place on the maximum number of publicly funded full-time students in order to manage pressures on public spending since 2009–10, which predates the Coalition government.

**Figure 2.1: First-year UK- and EU-domiciled enrolments to undergraduate courses at English higher education institutions by mode of study, 2002–03 to 2011–12**



Source: UUK, *The funding environment for universities: an assessment*, 2013

In 2010, the government passed higher education reforms with the aim of delivering a high quality university sector for the UK that is affordable and more responsive to the needs of students. The main features of the new system taking effect in 2012–13 were:

- increased upfront support in terms of both maintenance grants and loans
- additional progressive student support in the form of bursaries under the auspices of compliance with the Office for Fair Access and the National Scholarship Programme<sup>12</sup>
- a higher repayment threshold of £21,000
- the linking of the repayment threshold to average annual earnings
- the introduction of a real rate of interest charged on loans held by borrowers earning more than £21,000, rising incrementally from 0%+RPI to 3%+RPI at £41,000
- an increase in the life of loans from 25 to 30 years

The financial parameters of the system prior to 2012–13 and the system introduced in 2012–13 are set out in Table 2.1.

Given the changes to the funding system taking effect in 2012–13, could growth in enrolments continue at the pace experienced over the past five years? If student number controls were removed or relaxed on the number of publicly funded students to allow this pace of growth, the following conditions would also need to be met:

- Higher education institutions would need sufficient income to meet the costs of the additional students, and to provide a high quality student experience.
- There would need to be sufficient demand to enter higher education to support the increase in enrolments.
- The impact on the public finances would need to be sustainable.

The first two conditions are explored in the remainder of Chapter 2, and the third is examined in Chapter 3.

11. UUK (2013) *The funding environment for universities: an assessment* p. 7–8

12. Although this has since been abolished following the 2013 Spending Round, and £50 million diverted to support for postgraduate students.

**Table 2.1: Financial parameters for 2012–13 for students enrolled under the previous and current higher education funding systems**

	Enrolled in 2011–12 (previous funding system)	Enrolled in 2012–13 (current funding system)
Fees in 2012–13	£3,465 per year	Up to £9,000 per year
<b>Support</b>		
Maintenance grant	£2,984 per year if parental income less than or equal to £25,000 p.a. Tapered away at around 20% withdrawal rate between £25,000 and £34,250. Tapered away at around 7% withdrawal rate between £34,250 and £50,695	£3,250 per year if parental income less than or equal to £25,000 p.a. Tapered away at around 18% withdrawal rate thereafter. No grant available when parental income exceeds £42,600 p.a.
Maintenance loan	If parental income less than or equal to £25,000 p.a.: – if living with parents: £2,346 – if living away from home in London: £5,436 – if living away from home outside London: £3,458  Increases by 50p for every £1 reduction in maintenance grant until parental income reaches £50,778, tapered away at 20% withdrawal rate thereafter until it reaches 72% of maximum amount	If parental income less than or equal to £25,000 p.a.: – if living with parents: £2,750 – if living away from home in London: £6,050 – if living away from home outside London: £3,875  Increases by 50p for every £1 reduction in maintenance grant until parental income reaches £42,875, tapered away at 10% withdrawal rate thereafter until it reaches 65% of maximum amount
Minimum bursary requirement	University pays a minimum of £347 per year if student receives full maintenance grant	
National Scholarship Programme		£3,000 subsidy from government, allocated to eligible students in the form of fee waivers, cash bursaries and other benefits. Parental income less than or equal to £25,000 p.a. is a common but not definitive eligibility criterion. No more than £1,000 of this £3,000 subsidy can be used to provide cash bursaries. Matched by a contribution from university
<b>Repayments</b>		
Real interest rate		
– during study	0%	3%
– after graduation	0%*	0% if earnings below repayment threshold. Tapered between 0% and 3% for earnings between repayment threshold and £41,000 (in 2016 prices). 3% if earnings above £41,000 (in 2016 prices)
Repayment rate	9%	9%
Repayment threshold	£15,795	£21,000 (in 2016 prices)
Threshold indexation	Annually in line with RPI inflation from 2012	Annually in line with national average earnings growth from 2016
Repayment period	25 years	30 years

\*Note that from 1 September 2013 until 31 August 2014 the low interest cap is operating, and the interest rate is 1.5% (lower than the RPI for March 2013 at 3.3%).

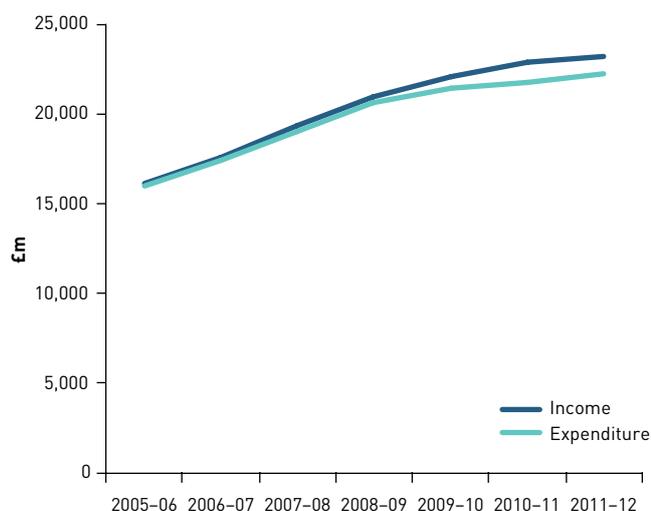
Source: H Chowdry, L Dearden, A Goodman and W Jin, 'The distributional impact of the 2012–13 higher education funding reforms in England' *Fiscal Studies*, June 2012

## 2.2 Income to higher education institutions

Between 2005–06 and 2011–12 there has been a steady rise in the level of income to higher education institutions in England, an increase of 44% since 2005–06 (Figure 2.2). Income shown in Figure 2.2

includes funding from home undergraduate, home postgraduate and international students, as well as other sources of income not directly related to students. Over the same period expenditure has also risen, but at a slower pace, an increase of 39% since 2005–06.

**Figure 2.2: Total income and expenditure for institutions in England, 2005–06 to 2011–12**



Source: HESA

One aspect of the reforms to the higher education system taking effect in 2012–13 was that *in aggregate*, higher education institutions in England were to receive more income from undergraduate teaching than under the previous system. The Institute for Fiscal Studies estimated a 12% average increase in income per graduate (Table 2.2).

As Table 2.2 shows, the composition of income to higher education institutions changed markedly under the reforms, with the balance between teaching grant and fees moving much more towards fees. Figure 2.3 shows the estimated balance shifting, up to 2014–15.

Forecasts of income by higher education institutions in England up to 2014–15 show an estimated rise in total income from 2011–12 to 2014–15, which partly reflects the aggregate increase in income from undergraduate students (Figure 2.4). However, these forecasts are subject to significant uncertainty, with

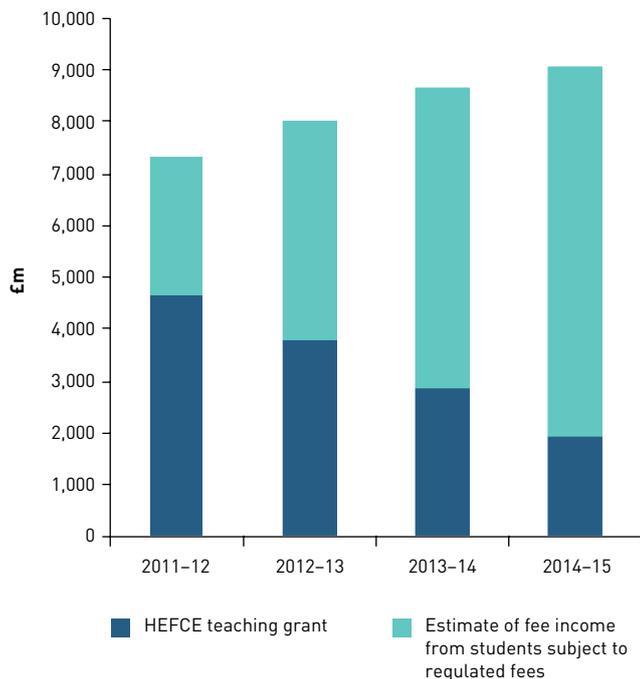
**Table 2.2: Circular flow of sources and destinations of funding**

	Previous system	Current system	Change (£)	Change (%)
<b>Source of funding per graduate</b>				
<b>Taxpayers</b>	£20,690	£19,720	-£1,420	-6.9%
HEFCE funding	£10,990	£1,520	-£9,460	-86.1%
National Scholarship Programme spending	£0	£130	£130	
Maintenance grants	£4,020	£4,520	£510	12.7%
£ loan subsidy	£5,690	£13,100	£7,410	130.2%
% loan subsidy (RAB)	25%	33%	8%	
<b>Graduates</b>	£16,990	£25,830	£8,850	52.1%
Fee loan repayment	£7,530	£15,960	£8,420	111.8%
Maintenance loan repayment	£9,450	£9,880	£430	4.6%
<b>Destination of funding per graduate</b>				
<b>Universities</b>	£20,160	£25,530	£5,370	26.6%
HEFCE funding	£10,990	£1,520	-£9,460	-86.2%
National Scholarship Programme spending	£0	£130	£130	
Fees	£10,420	£25,760	£15,340	147.2%
Less fee waivers	£0	-£600	-£600	
Net fees	£10,420	£25,160	£14,740	141.5%
Bursaries	-£1,250	-£1,290	-£40	3.2%
<b>Students</b>	£17,520	£19,580	£2,060	11.8%
Maintenance grants	£4,020	£4,520	£510	12.7%
Maintenance loans	£12,250	£13,770	£1,520	12.4%
Bursaries	£1,250	£1,290	£40	3.2%

Source: H Chowdry, L Dearden, A Goodman and W Jin, 'The distributional impact of the 2012–13 higher education funding reforms in England' *Fiscal Studies*, June 2012

Note: RAB = Resource Accounting and Budgeting charge

**Figure 2.3: Change in public funding and fee income, 2011–15**



Source: HESA and HEFCE

any downside deviation from recruitment targets for home and non-EU students resulting in a reduction in forecast income.

If student number controls were lifted or relaxed to support additional growth in student numbers, would the additional income flowing from fees be sufficient for institutions to provide a high quality student experience? The additional income from fees could cover ongoing costs of provision, but income would also be required for additional capital and infrastructure costs associated with expansion. Institutions vary greatly across the sector in their strategies in relation to additional student numbers, with some already at capacity, and others with room to grow. Any concerted effort to increase student numbers across the sector in the long term would require increased capacity in existing institutions, or new institutions to enter the market. Increased capacity requires long-term planning, and new capital infrastructure.

There is evidence to suggest that institutions in England are facing a challenging environment in funding the maintenance of existing infrastructure and funding new investments. They are increasingly relying on their own internal cash sources to finance capital expenditure, rather than funding from capital grants. While in 2009–10 around 11% of capital expenditure was financed from internal cash sources, this is projected to rise to around 73% by 2014–15.

**Figure 2.4: Total income to the higher education sector (England only), including forecast income 2012–13 to 2014–15**



Source: HESA and HEFCE

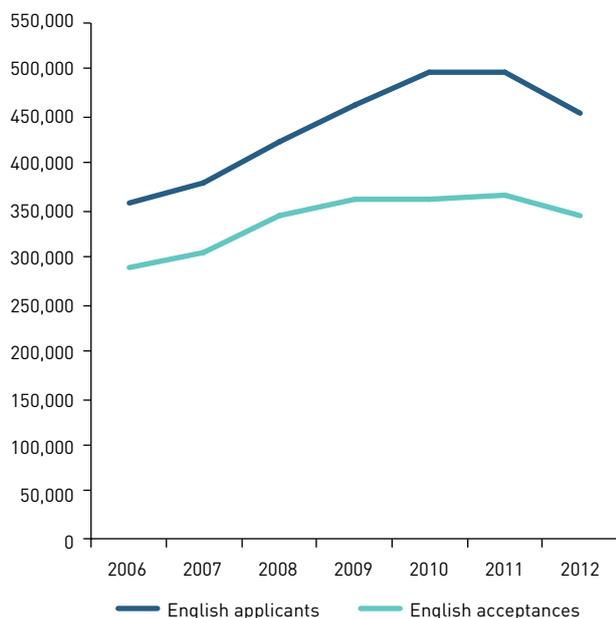
Therefore, even if student number controls were lifted to support additional growth in student numbers, it is far from certain that institutions could fund the additional capital infrastructure needed to maintain a high quality student experience – even with the projected increase in aggregate income under the reforms. A timing and coordination problem would also exist, with funding for new capital needed well before any significant increase in student numbers, and before any additional income from increased student numbers would start to flow to institutions.

### 2.3 Demand to enter higher education

If growth in enrolments were to continue at the pace experienced over the past five years there would need to be sufficient demand from those applying to support the increase. Figure 2.5 shows that the number of total applicants from England increased strongly between 2006 and 2010, before flattening in 2011 and falling in 2012. However, not all those who apply to higher education are accepted. Accepted applicants have been rising at a slower rate, and fell in 2012.

A significant gap remains between the number of applicants and the number of accepted applicants. The difference between the number of applicants and acceptances can provide us with a crude measure of the extent to which the demand for

**Figure 2.5: Total English applicants and accepted applicants, 2006–2012**



Source: UCAS

Note: Figure 2.5 shows end of cycle data for years shown. End of cycle data is not yet available for 2013.

attending university exceeds the supply of places (or unmet demand), although one must be cautious about interpreting the numbers too literally. Some applicants will withdraw from the process, and also some applicants do not have the necessary qualifications to be accepted. However, around 38% of applicants who are not awarded a place reapply.<sup>13</sup> Figure 2.5 seems to indicate that there is a degree of unmet demand in the current higher education system, and this unmet demand has the potential to fuel further growth in enrolments.

One issue is whether the extent of unmet demand will diminish as a result of the introduction of higher tuition fees in 2012. Evidence on the 2013 cycle so far suggests that further falls in acceptances will be avoided, with an increase compared with the previous year. Given the extent of unmet demand as measured between applicants and acceptances, the fall in acceptances in 2012 was a surprise to many, and recruitment to higher education institutions in England for 2012–13 was 9% lower than anticipated. This could have been due to institutions' concerns about penalties for under- or over-recruitment. Early indications are that greater flexibility in student number controls for 2013–14, and deregulation

to include ABB as well as AAB+ students, may counteract the fall in acceptances experienced in 2012. However, even with these changes, applicants are still likely to exceed acceptances for the foreseeable future.

A further issue is how demographic change will affect the levels of demand for higher education. Students aged 21 and under remain the dominant group in higher education, and as a result of changes in the birth rate, by 2021 there will be 217,000 fewer 18 to 21 year olds in England compared with 2014.<sup>14</sup> The Institute for Public Policy Research has estimated that the smaller cohort of 18 to 21 year olds could generate a saving of between £1.5 and 3 billion on teaching grants and maintenance grants over a seven-year period if the proportion of young people entering full-time higher education is held constant.<sup>15</sup>

While the decrease in the number of 18 to 21 year olds would, at first glance, suggest a corresponding reduction in the numbers applying to higher education, research by the Higher Education Policy Institute (HEPI) shows that the changing social composition of the population has the effect of dampening the reduction in demand. Lower rates of higher education participation and fewer births in lower socioeconomic groups will lead to an estimated decrease in demand of nearly 36,000 students in 2020–21 compared to 2007–08, instead of an estimated reduction of over 60,000 students, without taking into account the effects of the changing social composition.

Another factor affecting the level of demand for higher education will be student attainment of A-levels. While projected demographic changes and current trends in attainment would suggest a decline in the numbers applying to higher education, if a significant degree of unmet demand exists a decline in demand may not necessarily translate into fewer students in the system. HEPI argues that given the limitations on the supply of places, and the current substantial level of unmet demand, there will still be a substantial gap between demand and the number of places available from 2012 until at least 2020.<sup>16</sup>

In spite of weakening overall demand due to demographic change, the evidence suggests that there is a sufficient level of unmet demand in the system that would work to fill an increase in the supply of places, and so support growth in overall enrolments.

13. Refers to those who applied between 2003 and 2006. UCAS (2007) *Missed Opportunities? Non-placed Applicants (NPA's) in the UCAS data*

14. ONS (2011) *National Population Projections, 2010-Based Projections*

15. IPPR (2013) *A Critical Path: Securing the Future of Higher Education in England*

16. HEPI (2011) *Higher Education Supply and Demand to 2020*

# CHAPTER 3:

## THE FUNDING CHALLENGE FOR GOVERNMENT



Chapter 2 considered whether growth in enrolments could continue at the pace experienced over the past five years, if student number controls were removed or relaxed to allow it. If student number controls were changed in this way, it would have a significant impact on the government's finances. This chapter outlines the forecasts of the impact of the current system on the government's finances, possible trajectories for government spending on higher education up to 2017–18, and the scope for increasing student numbers.

### 3.1 Student loans and the impact on the public finances

The long-term cost to the government of issuing student loans comprises two main components:

- *The interest rate subsidy:* the interest rate students pay on their loans is lower than the cost to government of borrowing the funds for the loans. The cost of the subsidy is valued as the difference between the expected income from the loans and the cost of delivering the loans at the government's cost of capital (2.2%).
- *Loans that cannot be recovered:* the government writes off loans in certain circumstances. A provision is made for the future cost of loans that cannot be recovered at the time that the loans are made.

In addition, the government needs to fund the cash value of the loans. Table 3.1 shows how these transactions are recorded in the government's accounts.

The cashflows associated with the issuance of loans and repayments of principal affect the government's cash position, but *do not count* towards the government's level of borrowing. This is because student loans are treated as a loan to the private sector, with the expectation the loan will be repaid

**Table 3.1: Impact of student loans on BIS's budget<sup>17</sup>**

Transaction	Component of budget affected	Cashflow of government affected?
Loans issued and repayments of principal	Capital: Annual Managed Expenditure (AME)	Yes – public sector net cash requirement affected
Interest rate subsidy and write-offs	Resource: Departmental Expenditure Limit (DEL)	No – non-cash item

Note: DEL refers to BIS's budget that is allocated to spend on administration and the delivery of public services. AME refers to areas of spend that are less easy to control and plan in advance. DEL and AME are divided into capital and resource spending.

(subject to the provision for write-offs). Therefore student loans only count towards the public sector net cash requirement (the impact is shown in Table 3.2). The net cash requirement drives changes in public sector net debt.

The Office for Budget Responsibility has commissioned BIS to model projections of student loans and repayments over the next 50 years, particularly around the contribution to public sector net debt. Key assumptions made include:

- student numbers remaining constant at their current numbers
- the 2012–13 average fee loan per student being £7,000
- the tuition fee cap and maintenance grants being uprated with earnings after the medium-term forecast period (after 2017–18)

**Table 3.2: Impact of student loans on public sector net cash requirement**

£billion	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18
Cash spending on new loans	7.8	9.6	11.2	12.3	12.9	13.4
Cash repayments	2	2.3	2.6	2.9	3.4	3.8
<b>Change to public sector net cash requirement</b>	<b>5.8</b>	<b>7.3</b>	<b>8.6</b>	<b>9.3</b>	<b>9.6</b>	<b>9.6</b>

Source: Office for Budget Responsibility, March 2013

17. The Annexe gives a more detailed breakdown of the transactions recorded in the government's accounts relating to student loans.

The Office for Budget Responsibility's fiscal sustainability report, published in July 2013, projects the following path for the contribution of student loans to public sector net debt:

- Total student loans issued by the end of 2012–13 had contributed 3% of GDP to public sector net debt.
- By the early 2030s, the contribution to net debt will increase to 6.7% of GDP, equivalent to £103 billion in today's terms.
- By 2062–63, the contribution to net debt will fall to 5% of GDP.

These projections are subject to revision due to changes in forecast GDP and average earnings growth.

The long-term cost to government from the interest rate subsidy and write-offs is a non-cash item; it is widely known as the RAB (Resource Accounting and Budgeting) charge. As it is a provision, a non-cash item, it does not count towards public sector net borrowing. The RAB charge reflects an estimate of future costs over the lifetime of the loans issued. It forms part of a ring-fenced element of BIS's Resource Departmental Expenditure Limit (DEL), which may *not* be reprioritised to other resource or capital spending. Transfers out of the ring-fence to other areas of resource DEL are not allowed without agreement from the Treasury. **Therefore, if changes were made to the RAB charge, it would not automatically release cash in the present to be spent on other BIS priorities.** The non-cash nature of the RAB charge and the fact that it does not affect the fiscal aggregates was highlighted in the answer to a parliamentary written question to David Willetts on 4 July 2013:

**Shabana Mahmood:** To ask the Secretary of State for Business, Innovation and Skills what assessment he has made of the likely effects of the announcement in spending round 2013, that the resource accounting budget for higher education student loans will increase to £4.4 billion in 2015–16.

**David Willetts:** The BIS student loan resource accounting budget (RAB) falls outside the ONS definition of PSCB (public sector current budget). The student loan resource accounting budget is used to ensure control over the long-term costs of the student loan book, but does not directly impact the fiscal aggregates.

The resource accounting budget for FY2015–16 of £4.4 billion is not directly comparable with the FY2014–15 baseline figure of £2.9 billion set in

2010, because of changes since 2010 including the following:

- macroeconomic conditions, which have increased the RAB charge to around 35%
- increases to repayments thresholds since 2010
- the introduction of further education loans since 2010

The total outlay on student loans will increase between FY2014–15 and FY2015–16 as a result of a higher proportion of students being eligible for higher fee loans. Decisions have not yet been taken on rates of tuition and maintenance loans in academic year 2015–16.

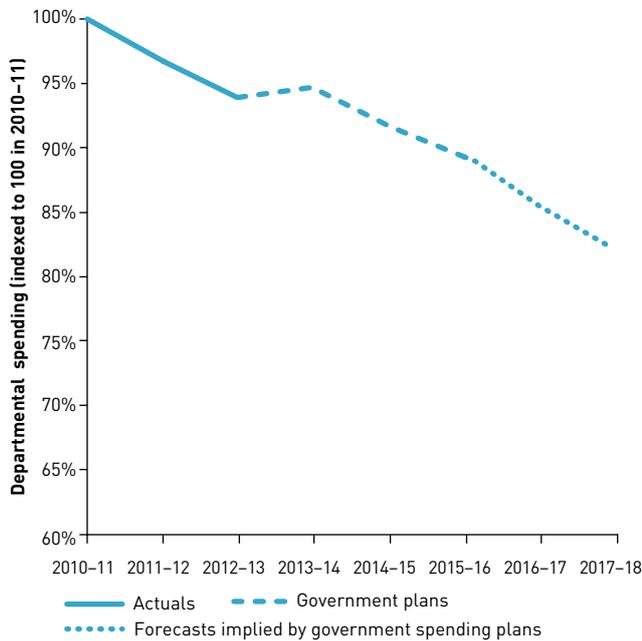
Reports by the Institute for Public Policy Research and HEPI have argued that the government's estimate of the RAB charge is too low. This would mean, in practice, actual write-offs are greater than that estimated in the RAB charge, and cash inflows to government in the future are lower than expected. This would have implications for the levels of public sector net debt. A need to increase the RAB charge would indicate problems around sustainability in the medium term that could potentially be met through changing the parameters around the loan structure. This has important implications for the future of student finance in England.

### 3.2 Forecasts for BIS's resource DEL and implications for higher education spending

Section 3.1 of this report illustrated that student loans have a non-cash impact on BIS's resource DEL, an impact that is ring-fenced. This section looks at BIS's spending on higher education outside of this ring-fence, which is cash-related and part of BIS's resource DEL. It also outlines forecasts for BIS's resource DEL under different public finance scenarios. The section is based on analysis commissioned by UUK from the Institute for Fiscal Studies.

The 2013 Spending Round outlined how total managed expenditure in 2015–16 will be allocated between departments, but decisions on departmental allocations beyond 2015–16 will fall in the next parliament. However, the government has announced plans for total spending through to 2017–18 which, combined with Office for Budget Responsibility forecasts, imply that total resource DEL will be cut by an additional 8.1% in real terms between 2015–16 and 2017–18. Figure 3.1 illustrates implied cuts for total resource DEL up to 2017–18.

**Figure 3.1: Total resource DEL, including implied plans beyond 2015–16**



Source: Institute for Fiscal Studies

Note: Resource DEL excludes depreciation.

The Institute for Fiscal Studies has modelled five scenarios for how total resource DEL (excluding depreciation) could be allocated between BIS and other government departments beyond 2015–16:

- **Equal cut:** where BIS incurs the same percentage real cut in resource DEL as all other government departments

- **Protection NHS and equal cut:** where NHS spending is frozen in real terms, aid spending is increased in line with GDP, and BIS incurs the same percentage real cut in resource DEL as all other departments
- **Protection NHS, schools and equal cut:** where NHS and schools spending is frozen in real terms, aid spending is increased in line with GDP, and BIS incurs the same percentage real cut in resource DEL as all other departments
- **Protection NHS, schools and same trajectory (a):** where NHS and schools spending is frozen in real terms, aid spending is increased in line with GDP, and all other departments incur the same proportion of their average annual cut over 2010–11 to 2014–15; for BIS, this average annual cut over the 2010 Spending Review period is calculated **including** the cut to the higher education teaching grant
- **Protection NHS, schools and same trajectory (b):** where NHS and schools spending is frozen in real terms, aid spending is increased in line with GDP, and all other departments incur the same proportion of their average annual cut over 2010–11 to 2014–15; for BIS, this average annual cut over the 2010 Spending Review period is calculated **excluding** the cut to the higher education teaching grant (which resulted largely from the higher education funding reforms)

The implications for BIS's resource DEL under these five scenarios are shown in Table 3.3. The table shows that the real change in BIS's resource DEL from 2014–15 to 2017–18 could range from

**Table 3.3: Real changes in BIS resource DEL under five scenarios**

Real change 2014–15 to 2017–18:	Scenario for allocation of total DEL to BIS				
	1) Equal cut	2) Protection NHS and equal cut	3) Protection NHS, schools and equal cut	4a) Protection NHS, schools and 'same trajectory'	4b) Protection NHS, schools and 'same trajectory'
<b>BIS RDEL (%)</b>	<b>-14.6%</b>	<b>-20.5%</b>	<b>-26.0%</b>	<b>-30.2%</b>	<b>-17.6%</b>
<i>If all areas of BIS spend are subject to the same proportional cuts:</i>					
Higher education (%)	-14.6%	-20.5%	-26.0%	-30.2%	-17.6%
Higher education (£m 2013–14 prices)	-£537m	-£752m	-£953m	-£1,109m	-£645m
Implied enrolment annual % change	5.1%	2.0%	-1.1%	-3.6%	3.6%
Implied change in 2017–18 enrolment	69,700	26,000	-13,600	-43,300	47,600

Source: Institute for Fiscal Studies

a cut of 14.6% up to one of 30.2%. BIS's resource DEL comprises expenditure on higher education, science and research, further education and some other smaller areas of spending. If higher education expenditure was cut in the same proportion as cuts to BIS's resource DEL, this could result in student numbers being cut in two out of the five scenarios (assuming the generosity of teaching grants and student maintenance grants was unchanged).<sup>18</sup>

Rather than assuming that spending on higher education is cut at the same rate as the overall BIS budget, an alternative approach is to project how higher education expenditure might look under a number of different assumptions on student enrolment numbers. The implications for other non-higher education BIS expenditure can then be examined under each scenario for the total BIS budget. The following assumptions about enrolment were considered:

- **Baseline case:** where student enrolment numbers are held constant from 2014–15 onwards
- **Increase in student numbers:** where student enrolment numbers are assumed to increase by 3% per year from academic year 2014–15 onwards

- **Decrease in student numbers:** where student enrolment numbers are assumed to decrease by 3% per year from academic year 2014–15 onwards

In each case the generosity of teaching grants and student maintenance grants was assumed to be unchanged, and therefore overall spending on grants is projected to increase in the case of increased enrolment, and decrease in the case of decreased enrolment.<sup>19</sup>

Note that an increase or decrease in student numbers would also have an impact on the RAB charge, and on the non-cash elements of BIS's resource DEL. The modelling in this section only looks at the impact on the cash elements of BIS's resource DEL, **and so excludes the impact on the RAB charge.**

The results of the three cases are shown in tables 3.4, 3.5 and 3.6.

Table 3.4 shows that higher education spending in BIS's resource DEL is expected to fall by 24.1% between 2014–15 and 2017–18 in the baseline case, where student numbers, teaching grant and maintenance grants remain constant in cash terms. This reduction will largely come from the decline in teaching grant that will arise from the continued transition to the new funding regime introduced

**Table 3.4: BIS resource DEL under five scenarios, baseline case**

Real change 2014–15 to 2017–18 in:	Scenario for allocation of total DEL to BIS				
	1) Equal cut	2) Protection NHS and equal cut	3) Protection NHS, schools and equal cut	4a) Protection NHS, schools and 'same trajectory'	4b) Protection NHS, schools and 'same trajectory'
<b>BIS RDEL of which:</b>	<b>-14.6%</b>	<b>-20.5%</b>	<b>-26.0%</b>	<b>-30.2%</b>	<b>-17.6%</b>
Higher education	-24.1%	-24.1%	-24.1%	-24.1%	-24.1%
Non-higher education	-11.1%	-19.1%	-26.7%	-32.5%	-15.2%
<i>of which if science and research frozen in cash terms:</i>					
Science and research	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Non-HE non-S&R	-17.4%	-33.6%	-48.9%	-60.7%	-25.6%

Source: Institute for Fiscal Studies

18. More specifically, the Institute for Fiscal Studies assumes that the teaching grant per 'old-regime' student, the teaching grant per 'new-regime' student, the HEFCE grants not allocated on a per-student basis, and the average maintenance grant for each cohort of English full-time undergraduates are all held constant in cash terms.

19. For the purposes of the calculations, it is assumed that extra students are the same as the average in terms of their household income, institution and subject that they choose. They incur the same per-student cost to BIS resource DEL (excluding depreciation) as the current average in terms of teaching and maintenance grants.

Table 3.5: BIS resource DEL under five scenarios, with a 3% per year increase in student numbers

Real change 2014–15 to 2017–18 in:	Scenario for allocation of total DEL to BIS				
	1) Equal cut	2) Protection NHS and equal cut	3) Protection NHS, schools and equal cut	4a) Protection NHS, schools and 'same trajectory'	4b) Protection NHS, schools and 'same trajectory'
<b>BIS RDEL of which:</b>	<b>-14.6%</b>	<b>-20.5%</b>	<b>-26.0%</b>	<b>-30.2%</b>	<b>-17.6%</b>
Higher education	-18.7%	-18.7%	-18.7%	-18.7%	-18.7%
Non-higher education	-13.1%	-21.2%	-28.7%	-34.5%	-17.2%
<i>of which if science and research frozen in cash terms:</i>					
Science and research	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Non-HE non-S&R	-21.5%	-37.7%	-53.0%	-64.7%	-29.6%

Source: Institute for Fiscal Studies

Table 3.6: BIS resource DEL under five scenarios, with a 3% per year decrease in student numbers

Real change 2014–15 to 2017–18 in:	Scenario for allocation of total DEL to BIS				
	1) Equal cut	2) Protection NHS and equal cut	3) Protection NHS, schools and equal cut	4a) Protection NHS, schools and 'same trajectory'	4b) Protection NHS, schools and 'same trajectory'
<b>BIS RDEL of which:</b>	<b>-14.6%</b>	<b>-20.5%</b>	<b>-26.0%</b>	<b>-30.2%</b>	<b>-17.6%</b>
Higher education	-29.2%	-29.2%	-29.2%	-29.2%	-29.2%
Non-higher education	-9.2%	-17.3%	-24.8%	-30.6%	-13.3%
<i>of which if science and research frozen in cash terms:</i>					
Science and research	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Non-HE non-S&R	-13.6%	-29.8%	-45.1%	-56.8%	-21.7%

Source: Institute for Fiscal Studies

by the higher education reforms. The Institute for Fiscal Studies estimates that the teaching grant will fall by 42.4% in real terms between 2014–15 and 2017–18, as 'old-regime' students are gradually replaced by 'new-regime' students who attracted lower or no teaching grant.

If student numbers are increased by 3% per year from academic year 2014–15 onwards, this would enable an extra 97,000 full-time undergraduates to have enrolled in university by 2017–18. Higher education spending in BIS's resource DEL would be expected to fall by 18.7% between 2014–15 and 2017–18, compared with 24.1% in the baseline case, and therefore the non-higher-education elements of BIS resource DEL would see a greater reduction in their budgets than in the baseline case.

If student numbers are decreased by 3% per year, higher education spending in BIS's resource DEL would be expected to fall by 29.2% between 2014–15 and 2017–18, and therefore spending on the non-higher education elements of BIS's budget would have to be cut by less than in the baseline case.

This analysis shows that there are no easy choices for government – trade-offs will need to be made. Tables 3.4 to 3.6 show that if the science and research budget is frozen in cash terms, the non-higher-education and non-research elements of BIS's budget would be subject to significant cuts. For example, if student numbers are held constant and the government continued policies of protecting expenditure on research, the NHS and schools, the non-higher-education and non-

Table 3.7: BIS resource DEL under five scenarios, baseline case with increased spending envelope

Real change 2014–15 to 2017–18 in:	Scenario for allocation of total DEL to BIS				
	1) Equal cut	2) Protection NHS and equal cut	3) Protection NHS, schools and equal cut	4a) Protection NHS, schools and 'same trajectory'	4b) Protection NHS, schools and 'same trajectory'
<b>BIS RDEL of which:</b>	<b>-11.0%</b>	<b>-13.8%</b>	<b>-16.5%</b>	<b>-18.6%</b>	<b>-13.2%</b>
Higher education	-24.1%	-24.1%	-24.1%	-24.1%	-24.1%
Non-higher education	-6.2%	-10.0%	-13.7%	-16.6%	-9.1%
<i>of which if science and research frozen in cash terms:</i>					
Science and research	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Non-HE non-S&R	-7.4%	-15.0%	-22.6%	-28.4%	-13.3%

Source: Institute for Fiscal Studies

research elements of BIS's budget would need to be cut by 25.6%. Such a large cut to this spending, which is largely on further education, would be hard to achieve.

Tables 3.4 to 3.6 assume that total departmental spending will be cut by 8.1% in real terms from 2015–16 to 2017–18. However, the government could choose to reduce the real cut planned – for example, maintaining the same average annual real-terms cut in 2016–17 and 2017–18 as has been in place since the 2010 Spending Review would imply a real cut of 4.4% (rather than 8.1%). To achieve this, the government would need to raise an additional £11 billion (in today's terms) from a combination of tax increases, increased borrowing, or cuts to non-departmental spending. An increase of £11 billion is equivalent to increasing borrowing by 0.7% of national income or, for example, increasing the standard rate of VAT by two percentage points.

With an increase in the total spending envelope of £11 billion, the total BIS resource DEL budget would be greater under each of the scenarios for how spending is allocated between departments. Therefore, for a given allocation of spending to higher education, the required cuts to non-higher education BIS spending would be lower. This is illustrated in Table 3.7 for the baseline case of constant student numbers and constant generosity in grants, which can be compared directly with Table 3.4. An increase in the total spending envelope could therefore enable increased spending on higher education without having as significant an impact on the non-higher-education and non-research-budget elements of BIS's resource DEL.

### 3.3 Increasing student numbers and the impact on the public finances

If the government decided to increase student numbers, this would have an impact on several components of BIS's budget. Table 3.8 sets out

Table 3.8: Impact of increasing student numbers on BIS's budget

Component of budget	Impact from increasing student numbers	Any impact on public sector net borrowing?
Resource DEL (non-cash element)	Increase: size of RAB charge would increase due to an increase in the number of loans issued	No
Resource DEL (cash element)	Increase: due to an increase in the per-student elements of the teaching grant and maintenance grants	Yes – increase
Capital AME (cash element)	Increase: due to an increase in the net value of loans issued	No – no effect on borrowing but there would be an effect on the net cash requirement (see explanation to Table 3.1)

Source: Institute for Fiscal Studies

the main changes. Increased numbers of student loans would place additional pressure on the public sector's net cash requirement, and increased per-student elements of grants would require an increase in public sector net borrowing.

In order to offset the impact, changes to the current student loan system could be made, including:

- increasing the interest rate that students pay
- increasing the repayment period
- increasing the repayment rate
- reducing the repayment threshold
- improving collection and follow up

However, none of these changes would release cash in the present; rather, they would increase the amount received by government in repayments in the future. The changes would reduce the RAB charge (the provision made for future costs on loans issued) in respect of the interest subsidy and expected write-offs. But as the RAB charge is only a provision made for future eventualities – a non-cash item forming part of BIS's resource DEL – it would not make any extra cash available in the present that could be reprioritised for other purposes.

Options for changes that can be made to make funding available in the present to support any increase in maintenance and teaching grants associated with an increase in student numbers include:

- reducing other items of BIS resource cash spend
- reducing other government departments' spend
- increasing revenues to the government

Private funding to universities could also be a potential future source of income. The next chapter examines the experience of other countries in dealing with the challenges posed by constrained public resources, and a need to expand tertiary education. None of the models discussed offer a ready-made solution, but there may be lessons for future student funding policy in the UK.

# **CHAPTER 4:**

## **FUNDING CHALLENGES FACED BY OTHER COUNTRIES**



## 4.1 Public and private higher education funding: the international context

It is helpful to view the UK's funding of higher education in the context of comparisons with other countries that are facing similar challenges, with a need to expand higher education provision alongside constrained public resources. Figure 4.1 shows that the UK invests less per capita in higher education than many of its competitor countries, with 1.37% of GDP spent on tertiary education, which is below the OECD average of 1.65%. For the UK, 0.74% of the proportion of GDP spent comes from public sources and 0.63% from private sources – although these figures represent overall spend on higher education, not just the spend on undergraduate education. The new fees system for undergraduates in England will likely increase the overall level of spending, since the OECD figures are based on data gathered prior to the 2012–13 academic year. Figure 4.1 shows that countries that spend a much higher proportion of GDP on higher education often do so through private sources of funding.

Countries across the OECD charge varying levels of tuition fees, and offer varying levels of support to students in the form of grants or loans. Countries can be grouped into four broad categories, as Table 4.1 illustrates. There is no direct relationship between the level of tuition fees and the level of participation:

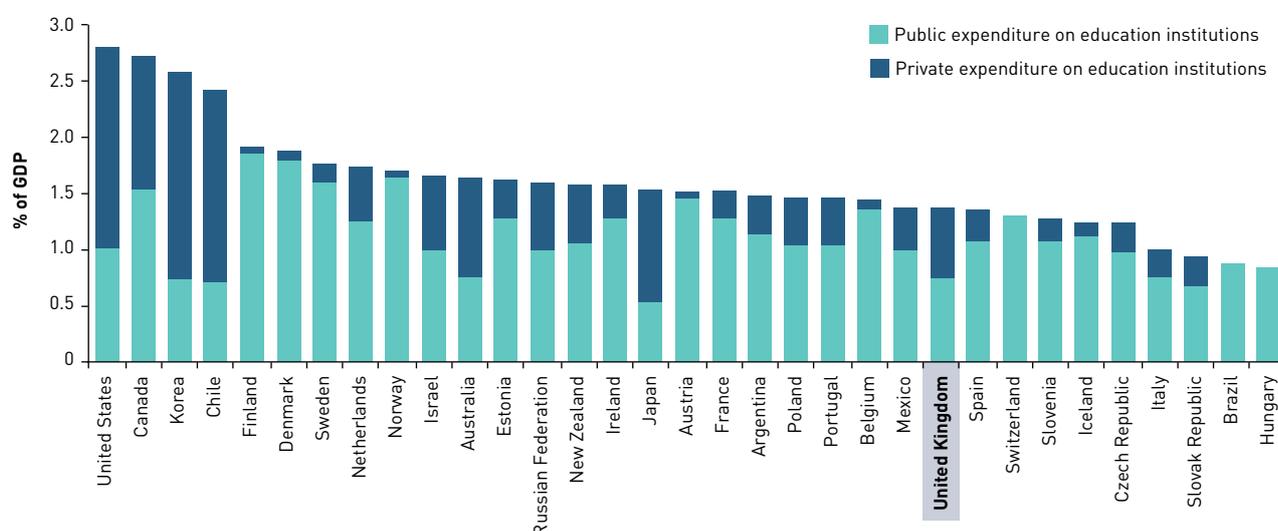
- No or low tuition fees and well-developed student support systems:** The average entry rate to higher education for this group is 75%, above the OECD average of 60%, and these countries have more progressive tax structures.
- Higher tuition fees and well-developed student support systems:** The average entry rate to higher education for this group is 76%. Countries in this group tend to have private entities making a significant contribution to financing higher education institutions.

Table 4.1: International comparisons on student support systems and tuition fees

	Well-developed student support	Less-developed student support
No/low tuition fees	Denmark Finland Iceland Norway Sweden	Austria Belgium Czech Republic France Ireland Italy Poland Portugal Switzerland Spain
Higher tuition fees	Australia Canada Netherlands New Zealand United Kingdom United States	Chile Japan Korea

Source: OECD

Figure 4.1: Public and private expenditure on tertiary education as a percentage of GDP, 2010



Source: OECD

- **No or low tuition fees and less-developed student support systems:** The average entry rate to higher education for this group is 56%, below the OECD average of 60%, and higher education institutions are funded significantly by public sources.
- **Higher tuition fees and less-developed student support systems:** The average entry rate to higher education for this group varies significantly across countries, from 45% in Chile and 52% in Japan, to 69% in Korea. Japan and Korea are among the countries with the lowest levels of public expenditure allocated to higher education as a percentage of GDP, and the burden of financing studies falls on students and their families.

Figure 4.2 and Table 4.1 show that countries have varying levels of student support and tuition fees, and finance their student support systems with varying proportions of public and private sources. For example, Figure 4.2 shows that the United States has a relatively high proportion of private financing of higher education and a well-developed student support system, whereas Korea has a relatively high proportion of private financing, but a less-developed student support system. As both the United States and Korea have high proportions of private financing, the next sections examine their systems in more detail as a basis of comparison to the UK's publicly funded system. The Hungarian system is also examined as a source of comparison to the UK's system, where the government provides a loan system with universal access that is self-financing.

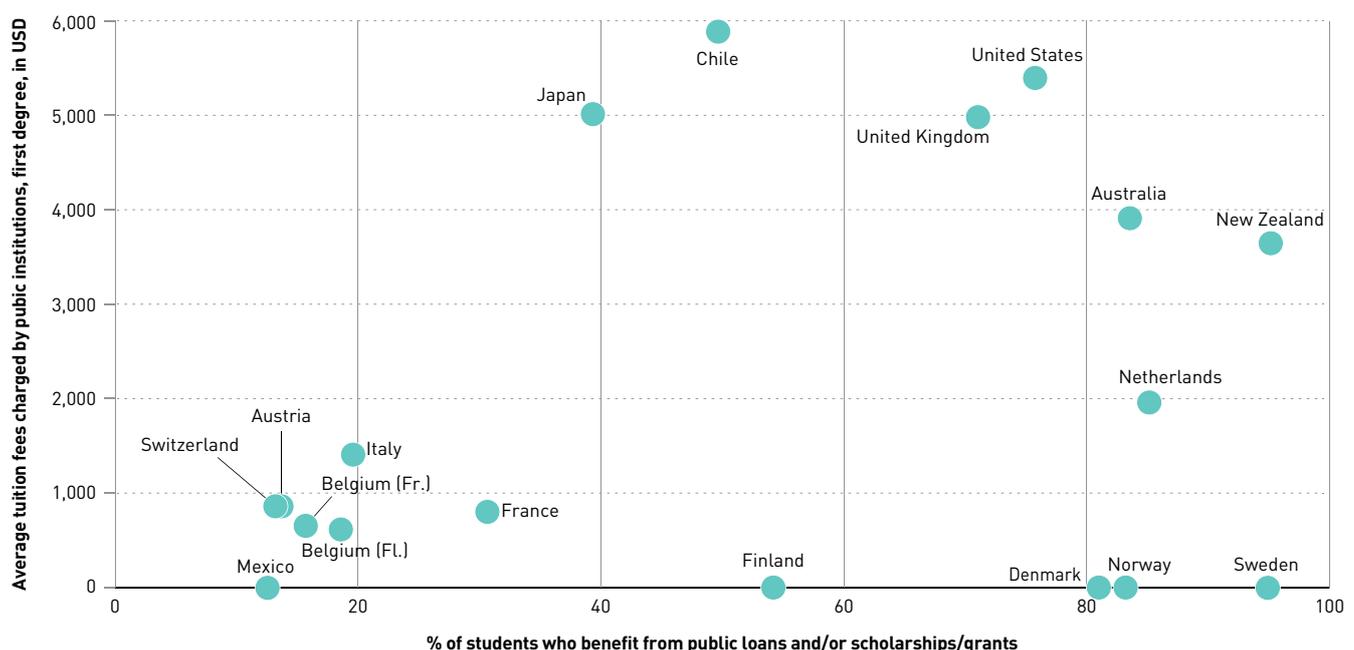
## 4.2 The system of student support in the United States

In the United States, students tend to meet their total funding requirement from a range of sources whilst studying, but predominantly from family and individual earnings. However, student loans are made available, dependent on financial need, and provided satisfactory academic progress is made. Loans are funded at the federal level, by the Department for Education, and by universities and colleges themselves. Individual states also operate differing support and subsidy systems for their students.

At the federal level, the main loan programme is the Federal Direct Stafford Loans Programme. Students borrow directly from the Department for Education, and can take out a direct subsidised loan (with no interest charged while studying) or a direct unsubsidised loan (where interest accrues). No collateral or parental guarantees are required for these loans. If an additional 'PLUS' loan is taken out, which is a loan to the parents of the student, collateral is required. The Department for Education funds the loans programme through the public capital within the US Treasury, and around \$100 billion in loans are issued each year. Limits on loans at the federal level are determined by Congress.

At the university (or 'school') level, the main loan product is the Federal Perkins Loan. Students borrow directly from their university, and can take out loans to pay for education expenses incurred at the school. This includes tuition, room and

Figure 4.2: Average tuition fees and proportion of students benefiting from public loans or scholarships in tertiary type A education, 2011 (full-time national students, US dollars)



Source: OECD

board, fees, books, supplies, equipment, childcare expenses, transportation, and rental or purchase of a personal computer. Universities fund loans through income from their capital or endowment investments, charities, and income from full-fee-paying students. Like the Federal Direct Stafford Loans Programme, Federal Perkins Loans are subject to conditions around loan forgiveness. In addition to the Federal Perkins Loan, universities can also offer alternative loans to students.

Students can take out private loans, offered by private student loan companies, banks, credit unions, some state agencies, employers and even individuals. These private sources are usually only available once the student has received the maximum federal borrowing available. These loans are often subject to extensive checking and requirements for collateral and co-signing.

Table 4.2 shows a summary of the interest rates applying to various loans offered.

Congress sets the interest rate on the Stafford loan. In July 2013, the subsidy for the interest rate on Stafford loans was removed, doubling the interest rate from 3.4% to 6.8%. In 2012, during the presidential campaign, Democrats and Republicans agreed to keep the 3.4% rate in place for one year, and rates were to double to 6.8% if a consensus was not reached on new interest rate arrangements. A consensus was not reached in time to prevent the interest rate doubling, but at the time of writing the Bipartisan Student Loan Certainty Act of 2013 was set to come into force, after debates in the Senate and House. The act will mean rates for the 2013–14 year will be set at 3.86% for undergraduate Stafford loan borrowers, 5.41% for graduate Stafford loan borrowers and 6.41% for PLUS

borrowers. Rates for loans will be tied to Treasury bond rates, and loans taken out in subsequent years are likely to carry higher rates, because the ten-year Treasury yield is expected to rise as the economy improves. Congressional researchers project that the rate on new loans for undergraduates would be 4.62% for loans taken out in 2014 and 7.25% for loans taken out in 2018. The act sets caps on rates at 8.25% for subsidised and unsubsidised undergraduate Stafford loans, 9.5% for graduate Stafford loans, and 10.5% for PLUS loans.

Challenges faced by the United States system of loans are similar to those faced in the UK, with undergraduate enrolment expected to increase up to 2018, placing pressure on the current loan infrastructure. Increases in tuition fees are expected to be another source of pressure. In contrast to the UK, however, the amount of federal loans permitted is low relative to the cost of a US university education, and graduates often turn to more expensive private loans to finance their higher education. However, this has led to many graduates claiming they are 'shackled' to their college education debt. While the United States government has attempted to work in collaboration with commercial banks to provide more affordable loans, this has since been abandoned due to inefficiencies relating to the government being able to borrow much more cheaply than rates charged by commercial banks.

While Figure 4.1 shows that the United States spends a much higher proportion of GDP on higher education than the UK, much of this differential is from private expenditure and through more expensive private loans. The United States faces very similar challenges in relation to its federally funded loans as the UK does with its publicly funded system.

**Table 4.2: Loan products offered to US students by government or universities**

Cost element	Description	Fixed rate
Stafford loan	Standard loan offered to students. Available for federal loan cancellation. Maximum lifetime limits apply. Undergraduate maximum \$57,500, of which \$23,000 can be subsidised.	Unsubsidised – 6.8% Subsidised – 3.4%
PLUS loan	Offered to parents of students. The obligation is on the parents, not the students. Maximum available is cost of attendance less any other financial assistance received.	7.9%
Perkins loan	A need-based loan with a 10-year repayment. Maximum lifetime limits apply. Undergraduate maximum \$27,500; maximum \$5,500 per annum. Available for federal loan cancellation.	5%
Consolidated loan	Consolidation of above three loans into a single payment. Repayment term of 10–30 years.	Weighted average of above

Source: PWC

Note: table reflects rates prior to the Bipartisan Student Loan Certainty Act 2013

### 4.3 The system of student support in Korea

Higher education in the Republic of Korea relies heavily on personal funding, placing much of the burden on the families of students. Student loans cover a relatively small proportion of a student's higher education costs. It is estimated that family assistance contributes 52% towards tertiary education costs, and it is common for families to start saving on behalf of their child from a very young age. The number of students receiving loans is also low. As of April 2010, only 12.7% of students that had studied a four-year course at a private institution (where the majority of students study) had received a government funded loan.

There are, however, seven national student loan schemes targeted at various groups. The Ministry of Education provides the largest programmes, the Government-Guaranteed Loan Scheme (GGLS), and the Income Contingent Loan programme (ICL). Both programmes are targeted at students from more disadvantaged backgrounds. As of April 2010, approximately 2.9 million students had received GGLS or ICL loans.

The GGLS provides student loans through commercial banks at real interest rates with a repayment period of 20 years. Government interest subsidies range from 100% for the poorest students to partial interest coverage for the remaining students. As part of the scheme, a student loan guarantee fund was created. Students apply for the guarantee (90% partial loss coverage) through the banks that issue the loans. A total of

16 banks issue the loans. In order to free up the bank balance sheets and enable them to make additional student loans, prior to 2011 loans were bought by the Korea Housing Finance Corporation. The corporation then issued student loan-backed securities to investors (with a guarantee on principal and interest payments). Since 2011, this scheme has been transferred to the Korean Student Aid Foundation.

A new income-contingent student loan programme (referred to as the Study-Now-Pay-Later programme) was introduced in January 2010. Loans are available to students from households in the lowest to the seventh income deciles. This loan was introduced alongside the GGLS in response to concerns about the GGLS's monthly interest burden on students still studying. Students make no payments during the study period and are required to pay back interest and principal in instalments spread over a maximum of 25 years after their annual earnings reach a certain limit. The government funds the income-contingent loan scheme through its annual budget.

Other loan schemes are provided, including the Government Employees Pension Corporation (GEPC) targeting government employees and their children; the Korean Research Foundation (KRF) targeting students from rural farming and fishing communities; the Ministry of Labor (MoL) targeting industrial employees; the Korean Teachers Pension Fund (KTP) targeting faculty and their children; and the Korea Labor Welfare Corporation (KLWC) targeting victims of industrial accidents and their children. The scale and terms of these schemes vary, as shown in Table 4.3.

**Table 4.3: Loan schemes offered in Korea**

Scheme	Rate	Repayment period
GGLS	Government subsidises interest depending on income; the poorest students pay no interest	Interest payments begin immediately. Must be repaid within 20 years of borrowing
ICL	5.8% (set on a yearly basis)	25 years after reaching a minimum income threshold (16m Won)
GEPC	Interest free	2 year deferment, 3–4 years amortisation
KRF	Interest free	1 year deferment. Repayment over double the enrolment period
MoL	1% (secured loan) and 1.5% (unsecured loan)	2 year deferment, 2–4 years amortisation
KTP	Interest free	2 year deferment, 2–4 years for repayment
KLWC	1% (grace period), 3% (during amortisation), 2.28% (after graduation)	1 year grace period followed by 4 years amortisation

Source: PWC

The Korean system is characterised by a significant proportion of the costs of higher education being funded by private sources, and the loan products available are targeted at students most in financial need. In spite of the loan system covering only a small proportion of total students, and a small proportion of a student's higher education costs, Korea has a high, and increasing, tertiary education enrolment rate. Therefore, the experiences of Korea would suggest that a large-scale, government-backed loan scheme is not always a necessary condition for maintaining high enrolment rates.

#### 4.4 The system of student support in Hungary

Sections 4.2 and 4.3 illustrated the systems of student support operating in the United States and Korea, where the level of private contributions covering higher education costs is very high, and government-backed loan schemes are utilised by a relatively small proportion of the student population. This section explores the system of student support in Hungary, which provides a loan system with universal access that is self-financing, through access to the capital markets.

Hungary has had an income-contingent national student loan scheme since 2001 which uses private funds and is managed by the state-owned not-for-profit institution the Student Loan Centre. The Hungarian student loan system is based on the principle of universal access:

- Students are not credit scored.
- No collateral or parent guarantees are required to acquire a loan.
- Students can access the loans for a range of higher education courses, including PhD programmes.
- The amount borrowed by the student is optional, up to HUF 40,000 (£120) per month.

- There are no restrictions on what the loan may be used for.
- Loan repayments are income contingent and early repayment of loans (prepayment) does not incur additional cost.
- One barrier to access is age – the loans are only available to those under 40.

In spite of the universal access loan system, students meet their total funding requirement while studying through a range of sources, but predominantly from family support (25%) and individual earnings (33%). For those students taking out a student loan, the loan accounts for, on average, one third of their funding requirement.

Hungary's student loan system is predominantly funded through the issuance of bonds on the capital markets. Private funds are raised by the Student Loan Centre through a bond issuance, and these funds are utilised to provide student loans directly to students. The Student Loan Centre has issued in excess of 300,000 student loans since its inception in 2001, at a total value of over HUF 175 billion (£500 million).

The student loan book is treated as a homogenous population, with a single risk and return profile to all bond holders. The interest rate on lending to students is set to the Treasury bond rate with an additional risk premium to reflect the risk of non-payment and a further uplift to cover administration costs. The government does not provide any interest rate subsidy and the cost of inherent bad debt for non-repayment and collection is ultimately borne by the student through the interest rate charged on their loan.

The inclusion of this risk premium allows the student loan scheme to be classed as a 'private scheme' under EU rules, with any costs incurred not counting towards public expenditure. Students are expected to repay in full 12 to 15 years from

**Table 4.4: Cost of borrowing to students under the Hungarian loan system**

Cost element	Description	Interest rate (2010)
The average cost of funding	Reflecting underlying market conditions	c. 6%
A risk premium	Reflecting the risk of non-repayment and non-collection	c. 1.5%
An operational premium	Reflecting the cost of administering the system	c. 1%
<b>TOTAL</b>		<b>c. 8.5%</b>

Source: PWC

graduation, and the system for the collection of repayments has been efficient: 98% of scheduled repayments have been collected and administration costs have been within budget. While the government provides a guarantee to bond holders to protect against the risk of non-repayment and non-collection, the risk premium charged to students on their loans is adequate to cover repayments to bond holders. The government guarantee would only be called on in extraordinary circumstances.

Given that there is no government subsidy on the interest rate, the cost of borrowing is directly passed on to students and can fluctuate according to market conditions. Table 4.4 shows the elements of the cost of borrowing to students. While it shows that the interest rate may seem high, the cost of student loans in Hungary is less than half the cost of consumer loans and overdraft loans.

The Hungarian loan system has recently faced challenges, with the Eurozone crisis leading to a tightening of the liquidity in the capital markets and a significant increase in the cost of funding. This has

led to a rising student loan interest rate, and the government has offered repayment relief to those graduates experiencing difficulties. In 2012, tuition fees were changed to be subject specific, and in some cases were doubled. In response to this, the Student Loan Centre launched an additional loan that can only be used to contribute directly to the cost of education and which is paid directly to higher education institutions. A subsidy on the interest rate is provided by the government.

The Hungarian experience demonstrates that in times of relative financial stability, passing on the true cost of finance to students can enable the student loan system to be self-financing. However, as the costs of higher education increased, and financial markets became more volatile, the government needed to supplement the self-financing system with a subsidised loan. The UK's annual loan issuance is far in excess of Hungary's. If elements of a self-financing system were introduced in the UK, the scale of financing required and the number of students exposed to market fluctuations in the cost of borrowing they incur would be significant.

# CHAPTER 5:

## CONCLUSION



There is evidence at the broad macroeconomic level to support an increase in student numbers to meet the long-term needs of the UK economy. However, considerable challenges exist in funding an increase, if the quality and competitiveness of existing provision is to be maintained. These challenges include the following:

- The government would need to source additional funding for increasing per-student elements of teaching and maintenance grants, and would need to increase public sector net borrowing. If borrowing was to not increase, the government would need to increase revenues, redirect funding from other items of BIS cash spend, or redirect funding from other government departments.
- Increased student numbers would mean an increase in the RAB charge. The government will need to ensure the overall loan system remains sustainable. While changes to the current student loan system could be made to reduce the RAB charge, it is important to remember that this does not make any extra cash available in the present, in order to fund an increase in student numbers.
- Higher education institutions would need to access sufficient funding for capital expenditure in the present, in order to accommodate increases in student numbers in the future.

In other countries, the funding of a university education falls more heavily on private sources than in the UK. However, these more privately-focused systems are not without their problems.

The next stage of UUK's work will focus on the future of the student funding system in England. The following set of principles provides a preliminary framework to frame the discussion. Future work will examine how changes to the system could meet the challenges outlined in this report, and their impact on students, universities and government.

## 5.1: Principles for developing a new system

In thinking about the future of the student funding system in England, a number of principles need to be considered in the development of any future model. These are as follows:

### Student number control

- It is UUK's position that higher education institutions should retain autonomy over the admissions and selection process, and that this should not be dictated by the funding process that students may need to access.
- Student accessibility should be promoted, allowing for the expansion of student numbers.
- To the extent possible, students should be encouraged to study a course of their choice, assuming that they have the necessary qualifications to do so. This should not be dependent on the ability of the student to access finance.
- Students should retain the ability to transfer between courses and higher education institutions.
- There should be no prejudice against part-time students or different socio-economic groups in respect of their ability to access student funding.

### No student to be disadvantaged by background

- A student's lack of access to personal or family wealth at the start of their course should not present a barrier to their entry into higher education.
- An insurance mechanism should apply so that student debt repayment requirements are not on terms which may disadvantage those graduates who pursue further study or enter low-income employment.

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### Public-private finance models

- There should be recognition that public funding or support may be necessary at some level in the system.
- The use of public funds should be focused on providing support where the market cannot sustain investor return requirements. For example, where the profile of the student or nature of the course presents an increased level of repayment risk to investors, support may be required to fund the investor return premium associated with this.

### Alternative forms of funding

- The funding model should not constrain other forms of funding being accessed by the student – for example, parental wealth or individual higher education institution funding.
- The funding model should not constrain institutions from developing independent models to fund their students.

### System to cover all institutions

- Funding should be available to all students, irrespective of the institution they apply to.

### Tuition fees

- Flexibility should be retained to vary the key aspects of the existing tuition fee system (level of fee cap, earnings thresholds driving repayment levels, etc) to reflect investor and market needs.

## ANNEXE: IMPACT OF STUDENT LOANS ON BIS'S BUDGET

The following table shows a list of the various transactions relating to student loans and their impact on elements of BIS's budget:

Transaction	Component of budget	Increase/decrease	Cashflow of government affected?	Period
Loans issued	Capital AME	Increase	Yes	1
Interest rate subsidy and write-offs	Resource DEL	Increase	No	1
Interest receivable	Resource AME	Decrease	No	2
Interest receivable	Capital AME	Increase	No	2
Unwinding of discount (adjustment for net present value)	Resource AME	Decrease	No	2
Repayments of principal and interest	Capital AME	Decrease	Yes	3

Source: HM Treasury, Consolidated budgeting advice from 2013–14

Note that while all transactions in the table above affect elements of BIS's budget, they do not impact on public sector net borrowing. All non-cash items are offset through accounting adjustments so that public sector net borrowing is not affected. Cash transactions are also offset because they are classified as transfers between the government and the private sector, and therefore do not count towards public sector net borrowing (though the public sector net cash requirement is affected).

Period 1 denotes the initial time period when loans are issued.

Period 2 denotes the time period when interest accrues to the loan but no repayment of principal is yet received.

Period 3 denotes the time period when repayments to the loan occur.

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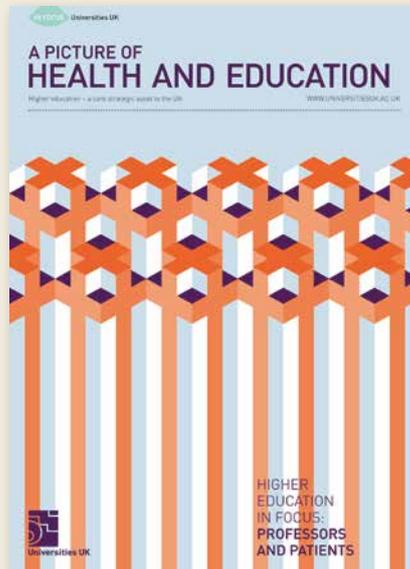
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