

# **Funding Higher Education in Ireland – Lessons from International Experience**

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## **Section 1: Introduction & background**

1. Irish higher education has been a success. Its expansion and reputation for high quality has been partly responsible for the country's extraordinary economic growth, and in particular for bringing in the foreign direct investment from which it has benefited.
2. Having seen very rapid growth to the point where Ireland has one of the highest rates of participation in Europe, the economic crisis beginning in 2008 led to public spending on higher education – together with other public services - being considerably constrained. However, student numbers were not so constrained, and as student numbers have increased and funding has been held back, per capita funding has reduced by approaching 25% (one manifestation of which is that staff student ratios have worsened by 30% in the period). In other countries like England, and many states of the USA, when public funding has reduced the fees paid by students have increased to compensate, so ensuring maintenance of funding levels. This has occurred in Ireland to some extent with the series of increases in the student contribution rate.
3. There remains a strong political and economic commitment to increased graduate output to meet the anticipated needs of the economy over the coming years, but the funding circle needs to be squared. Unless it is, then there is a very great danger that quality will be impaired and the growth in graduate output will not provide the benefit to the economy that is anticipated (there is growing research evidence that simply increasing graduate output does not lead to economic growth – what matters is the quality of the graduate output). The present Committee has been established to consider how future funding for higher education should be provided, and this report has been commissioned to provide some information about arrangements that are in use in other countries (and some that are not), so that the Committee can undertake its work in the knowledge of some of the alternatives and their implications.
4. This report is arranged as follows. Following this brief introductory section, Section 2 discusses some of the main elements in different arrangements for financing universities. Section 3 describes some international experience and lessons to be learned in applying some of the elements described previously. The final section raises questions that the Funding Group – and the Irish Government – will need to address as they consider the future direction for Ireland, drawing on the options and considerations discussed in earlier sections. The term university is used throughout this report for expediency, this generally refers to higher education institutions in general.

## Section 2: Principal approaches to the financing of HE in outline

5. This section describes in broad detail different approaches to financing higher education. It also describes some of the immediately obvious advantages and disadvantages of the different approaches. It should be noted that most of the approaches described below are not mutually exclusive, and can be – and some are – adopted in various combinations in different countries. In particular, few countries have systems where either taxpayer funding or privately provided funding are overwhelmingly dominant, but rather most involve a mixed regime. Even in the USA where high levels of fees are common, significant state grants are generally paid direct to universities. And in England where the new system involves very high fees, public funding of universities – both through HEFCE grant paid direct to institutions and through the large subsidy currently provided for loans – comprises the majority of the country's total investment in higher education.

### Taxpayer funding

6. Until relatively recently public higher education systems almost everywhere in the developed world relied exclusively, or very largely, on public funding provided from general taxation (that has not been the case in many developing countries, but by and large these do not provide a good model for Ireland). Taxpayer funded grant still provides a substantial part of the funding of HE in most countries, though now often alongside student fees.

### Advantages

- Recognition of the public benefit that arises from higher education, and therefore of the need for public investment in order to reap the benefits for the public
- Avoidance of the possibility that students from poorer backgrounds will be deterred from participating in higher education by having to pay
- Intergenerational transparency and equity – previous generations of students were supported in higher education by the tax paid by their predecessors. It would be unfair if they were now excused having to pay for the present generation of students.

### Disadvantages

- An arrangement based exclusively on taxation ignores the private benefits obtained from higher education
- Given that there remains a substantial proportion of the population who do not participate, it seems unfair that they, through their taxes, should pay for those who to go to university<sup>1</sup> and obtain an advantage through their lives from having done so.

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<sup>1</sup> For convenience, the term "university" is used throughout this report in preference to the more cumbersome "higher education institution" to denote all institutions of higher education, unless the text explicitly distinguishes between different types.

- There is evidence from many countries that those institutions with the highest level of public support are attended disproportionately by students from the most privileged backgrounds. Public funding disproportionately provides subsidy for the better off.
- As has been observed in Ireland recently, public funding is uncertain, and the greater the reliance on public funding the greater the risk of inadequate funding being available.

### Student fees (general)

7. Though there has been a strong move all around the world in favour of charging fees of students in recent years, there is some recoiling from this. Chile and Germany are examples of countries that introduced fees but have reverted (or in the case of Chile has decided to revert) to government grant and to abolish fees. Most countries though take a balanced approach, and share responsibility for funding higher education between students themselves and the taxpayer (between the private and the public beneficiaries). That is in fact the case in Ireland at present. There is a question about the proportions to be paid by each partner, and what support should be available to students from disadvantaged backgrounds to ensure that the payment of their share does not cause them and their families undue hardship, and at worst act as a barrier to participation, but that question is not one of principle.

### General considerations

- In a mirror of the case for public funding, the student fee recognises the private benefits of higher education. The beneficiary contributes to the cost in recognition of the benefits that he or she obtains. Having to pay is thought by some also to cause students to take their studies more seriously. That is not necessarily a positive future. There is some evidence in England that when fees were increased that led to more students taking a somewhat utilitarian view of higher education, one manifestation which has been a reduction in the number taking humanities subjects.
- In theory, the greater the amount of money that universities raise that is not dependent on the Government the greater their independence from government control and influence. So, a greater degree of student fee income provides universities with greater autonomy; and greater reliance on government funding makes them more subject to government control. The reality is that that is not the case. Even a relatively small amount of government funding enables the Government to exercise a great deal of control – there is no experience that suggests that an institution can risk losing, say, 30% of its income, and indeed, governments can and do make regulations even in respect of private universities – in the United States, for example, the requirement that universities should be accredited if their students are to be eligible for government grants; and in countries like Indonesia private universities are required to be accredited by the state accrediting body (effectively a form of quality assurance) before they are allowed to recruit students.
- So although there is some element of truth in it, the suggestion that reduced reliance on government funding increases the autonomy of universities is not borne out in practice, although, logically, there must come a point below which a government grant is such an insignificant

consideration that universities are able confidently to act with greater autonomy. In England any university that receives any government grant is required to sign a funding agreement with the funding body, and this funding agreement has identical requirements, regardless of the proportion of income that government grant represents. Some universities receive as little as 10% of their income from HEFCE but are subject to the same requirements in the funding agreement as those with far higher levels of government grant.

- A development of the previous argument is that government grant is highly uncertain and subject to year by year economic and political change. A greater reliance on privately generated sources (and in this argument fees are regarded as privately generated) provides universities with greater certainty of funding. It is certainly the case that diversity of income sources provides universities with a greater cushion against the political and economic uncertainties to which government funding is subject. And therefore that is something that is increasingly striven for by universities around the world – not just student fees but income from entrepreneurial activities, research grants and contracts etc.).

However, it would be wrong to regard fees as something that are not subject to economic and political decisions. While they may be less so than government funding, it is nevertheless the case that the level of fees is a highly political issue, and I am not aware of a public university system in the world where the Government (state governments in the United States and national governments elsewhere) does not in some way and to some extent control the level of fees that are charged. That is understandable and in most cases right. Universities are in many ways in a monopolistic position, and unless one takes an extreme, market view of higher education, then regulation of prices is widely regarded to be necessary. Fees may deter students – especially those from disadvantaged backgrounds – from participating in higher education. Even where loans are available there is still a risk, as there is evidence that debt version and economic deprivation are related.

8. Fee regimes fall into two classes: upfront and deferred repayment. Upfront fees are the most common and most straightforward. Universities charge a fee which a student must pay before being admitted. Under a deferred repayment arrangement – pioneered by Australia but replicated in England among the comparators used for this report – fees are charged by institutions but the student obtains a loan from the Government that covers the full cost, and which is repaid by the student after graduating and in work.
9. Looking specifically at the advantages and disadvantages of up-front fees on the one hand and fees with deferred income-contingent repayments on the other

### **Student fees (Upfront fees with rebates for disadvantaged students)**

10. The most straightforward form of fee arrangement is where a university sets a fee (or sometimes the Government does) and students are required to pay that before they can be admitted for the term, semester or year. That is the arrangement in most private universities and in some public institutions around the world as well. In public systems that have such an arrangement (as was the case in England

from 1998 until 2006), the Government often finds it necessary to contribute to the fee, either in part or entirely, on behalf of the student depending on a means test of their parental income.

11. Ireland effectively has such an arrangement, with the “student contribution”, which the Government pays in part or in full on behalf of students depending on the economic situation of their families.

#### Advantages

- Upfront fees ensure that those from wealthy backgrounds contribute immediately to the cost of higher education and do not benefit from public subsidy, which would be a deadweight cost.
- They also ensure that those from other EU countries, as well as those nationals who go abroad to work on graduation, pay their share
- Upfront fees generate income immediately, in contrast to other arrangements such as fees with deferred repayments and a graduate tax (see below)
- If accompanied by fee rebates for students from disadvantaged backgrounds, the imposition of such fees can be presented and immediately recognised as not disadvantaging the less privileged in a way that is more difficult with deferred repayment arrangements.

#### Disadvantages

- Upfront fees mean that education is not free at the point of use for those who have to pay them.
- In order to avoid an unmanageable burden being placed on students from poor families, Governments that introduce such arrangements tend to accompany them with extensive fee forgiveness arrangements (as Ireland has done – taking the student contribution effectively to be a fee – and as England did in its initial fee regime) with the result in England that only about one third of all students paid the full fee, with administrative and financial consequences for the Government)
- The disadvantage that is the converse of the advantage of ensuring those from wealthier backgrounds do not benefit from a subsidy, is that fees are supposed to recognise that those who benefit from higher education should pay more, and the more they benefit the more they should pay. Subsidy of a student because of their family background is illogical because the background of the student is separate issue from the benefit obtained from higher education.

#### Student fees (Deferred repayment with income-contingent loans)

12. Pioneered by Australia, student fees supported by income-contingent loans provide for universities to charge fees (which may be uniform or maybe variable), and for government provided loans to enable students to pay these fees in full (effectively the Government pays the fee to the University on behalf of the student). Students then repay the Government after graduating, and the level of monthly or annual repayment depends on how much they earn (hence income-contingent); and there is a threshold below which no repayments are made (which means that those who are unemployed or those taking career breaks do not pay for the duration that they are not working). Since the level of monthly repayment is fixed (in Chile at 5%, Australia up to 8%, and in England at 9% of earnings above

the threshold) this means that the less a graduate earns the longer he or she takes to repay. Since there is a real rate of interest payable, low earners will ultimately repay more than higher earners, though in England there is at present a 30 year limit after which any outstanding loans are forgiven.

### Advantages

- The great advantage of a fee and income-contingent loan arrangement is that it maintains the principle of education free at the point of use. No student need be put off attending university because of the prospect of having to find (or their family having to find) the fee, at whatever level the fee is set.
- In England, where the new arrangements introduced in 2012 involve a high student fee supported by a subsidised loan repayable on an income contingent basis, one advantage of these new arrangements was said to be that it took a large part of the financing of higher education off the national balance sheet. Government borrowing to provide loans to students was not counted as public borrowing to the extent that it could be claimed that it would be repaid. However, in England also a large element in the motivation for the new regime was ideological – it could be presented as involving less government direct involvement in University affairs as well as helping to create a market in higher education - though the reality is that there is no price-based market (since all universities have gravitated towards charging the highest fee).

### Disadvantages

- As with a graduate tax (see below), the income brought in by a fee and income-contingent loan arrangement is deferred whereas the costs to the Government are immediate. This disadvantage can be mitigated by encouraging students to pay early (as in Australia, where there is a 10% early repayment bonus – though the Government has proposed removing that), but such a measure itself is not without difficulty, since it will be interpreted as a benefit to the relatively wealthy.
- Requiring students to pay fees is politically difficult at the best of times. A requirement to pay fees at the levels now charged in England (over €11,000 per year) compounds the difficulties. All the systems examined where fees are charged and loans provided – Australia, England and Chile - find it politically necessary to subsidise loans to some extent (though in Chile not all loans are subsidised, and indeed not all students receive Government-backed loans), and the higher the level of the fee the more generous the loan subsidy tends to be. In England the level of subsidy that has been found to be expedient is so great that the entire system was widely agreed to have become unsustainable and following the recent election the Government has published proposals to reduce the loan subsidy in order to reduce the cost. But the general point is that a loan subsidy appears to be a political necessity to accompany fees and the higher the level of fees the higher the subsidy that is politically required. With a lower level of subsidy – albeit with the political difficulties involved - then such systems become financially sustainable. The problem is social and political not economic.
- According to EU regulations all students from other EU countries are eligible for government loans provided to pay fees. However, pursuing nonpayers who return home to other EU countries will be very challenging, as has been discovered in England, as it will be also to pursue nationals who

go abroad to work after graduation. The tax systems in other countries cannot be used to collect payments due in the country where the loan was provided.

- One thing that was widely expected in England and Australia as significant levels of fee were introduced was that participation would suffer, particularly participation among the economically disadvantaged. In both countries though there is evidence that that has not occurred – in England, for example, although there was a rush of students to participate the year before the new fees were introduced and a consequent reduction in the year of their introduction, the long-term trend was undisturbed. That appears to have been the case in Australia as well. Indeed, looking at England and Scotland (where fees were not introduced) the trends in participation are identical over the medium term. It does appear that those considering higher education have been persuaded that a deferred repayment arrangement whereby they only pay when they are earning and that levels of repayment are graduated according to their future means is a reasonable prospect that does not deter them.
- Fees could be uniform or variable (and if variable could nevertheless be within a limit set by the Government or not). A problem with allowing institutions discretion to set fees is that there is a strong tendency for fees to be set at or near the highest possible level. Higher education is quintessentially a positional good, and the value of degrees is to some extent judged according to their cost – there is a ‘Veblen’ effect. Universities cannot afford to be seen to be “low-cost”. Certainly competition on the basis of price does not appear achievable.

## Graduate Tax

13. I am not aware of any system in the world where a tax is levied on individuals simply by virtue of their having attended a higher education institution. But such an arrangement is theoretically possible and has been widely discussed in a number of countries, including England, Australia and Ireland. The concept is simple. Those who have experienced higher education are identified and subjected to a surtax of however many percent is decided upon, which they then pay to the Exchequer as part of their normal weekly, monthly or annual tax assessment.

### Advantages

- A graduate tax is regarded as more progressive than a loan and repayment system because it would mean that those who benefit the most from higher education by earning higher salaries will pay more, whereas, as was noted above, in a fee and income-contingent loan arrangement those who earn less build up the interest due on the loans and in many cases end up paying more than higher earners
- If the graduate tax arrangement includes past graduates as well as future graduates (but see below under “disadvantages”), then arguably that adds another dimension of fairness, and means that the liability would be spread among a larger population, enabling the tax rate to be lower
- Once the graduate has been identified as liable, the collection mechanism is straightforward and in place already.

## Disadvantages

- A principal argument against a graduate tax is that the revenue just goes to general government funds, and there is no guarantee that HE will benefit. In principle hypothecation is possible but many governments find that difficult and there is often strong resistance from finance ministries to hypothecated taxation (but there is no reason in principle why it should not occur). In order to counter the concern about a graduate tax simply becoming part of the general revenue of the Treasury, the National Union of Students in England developed a proposal for a graduate tax, income from which would be placed in a trust fund exclusively to fund universities. That proposal did not counter the general objection to hypothecated taxation.
- A graduate tax could be levied either just on future graduates, beyond the point at which the new arrangement comes into effect, or on all graduates including those having graduated in the past. The latter might appear fairer, but would be fraught with difficulty – future graduates will be easy to identify, but those who graduated in the past, some in the distant past, would be very much more difficult. And as with all taxes there would be a row and possible legal challenge as past graduates object that they were not alerted to the consequence of going to university when they did so.
- As with fees and deferred repayment of loans, the income brought in by a graduate tax is deferred (or at least is deferred if it applies only to future graduates) whereas the costs to the Government are immediate. And there is no sleight of hand available regarding treatment in the national accounts, as there appears to be with fees and income-contingent loans.
- Also, as with fees and deferred repayment of loans EU nationals and nationals who go to work abroad upon graduation will not contribute to the cost of the higher education from which they have benefited.

## Employer graduate levy

14. Although training levies are relatively common (where employers are required to pay X percent of their payroll from which they will receive reimbursement in respect of training costs that they incur, or variations on that), I am not aware of any country which imposes a levy on employers in respect of each graduate employed. Nevertheless, it is a theoretical possibility which would be capable of raising significant funds for higher education, and which has its own attractions and disadvantages.

## Advantages

- Employers are beneficiaries of higher education alongside governments and students themselves. If the principle is that the cost of higher education should be spread among the beneficiaries, then logic demands that employers as beneficiaries should also contribute.
- A graduate levy would have the benefit of putting to test the real value and benefit of higher education. If employers value the additional contribution, additional skills and knowledge that graduates bring compared with non-graduates, then they will be willing to pay the small additional cost of employing a graduate compared to a non-graduate. This will really put to market test the additional benefits claimed of higher education.



## Disadvantages

- To the extent that such a levy would make employing a graduate more expensive, it will reduce the incentive to recruit graduates, and may make graduate unemployment worse (but as stated above, that may only be a reflection of the true value of graduates).
- One of Ireland's unique selling points is that it has established itself as a low taxation environment, and that has been one of its attractions in bringing in foreign direct investment. Anything that looks like additional taxation – albeit relatively modest in this case – would be inconsistent with this general policy.
- Employers might counter the argument that as beneficiaries of higher education they ought to contribute to its cost by saying that they already do so through corporation and other taxes. That argument, however, does not stand up, since, for example, graduates also contribute to the cost of their education through the taxes that they pay; and while corporation taxes in Ireland are low relative to other countries, the costs of higher education are no lower, and the benefits to employers are as great.

## Public endowment

15. The government could hypothecate the income from a specific source to its universities. In Texas, for example, land which contains oil wells has been endowed by the State government to the University of Texas system, which consequently is one of the richest public universities in the world, and from which the University system derives 20% of its income. In the UK, when the Conservative party in opposition was struggling for a credible alternative to student fees it hit upon (and quickly abandoned) the idea that all the income from the auction of fourth-generation mobile telephone bandwidth should be endowed to universities which should not thereafter benefit from government grants or student fees.
16. Only the Texas experience provides an example of a successful attempt to provide assured government funding for universities without the uncertainty of year-to-year political decisions.

## Advantages

- In principle, funding provided through an endowment should ensure continuity of funding without the volatility of political and economic considerations that may affect government provided funding from year to year.

## Disadvantages

- Although the creation of an endowment should be possible for a government with its multitude of valuable assets, the amount that will be required to fund an entire university system means that it is unlikely to be a realistic prospect (though it might provide part of the funding required).
- In the event of the endowment losing its value (through poor investment decisions or a deteriorating investment environment) the Government may still find itself liable to provide funding for higher education – given the importance of higher education to society and the economy it could not afford to allow the consequences of the loss of funding to play out.

## Section 3: Lessons from Reference Countries

17. At Annex A are detailed descriptions of higher education funding arrangements in:
  - Australia
  - England
  - Chile
  - Norway
18. In part these case studies were selected because they provide interesting examples of one or other approach, and in part because they are systems with which I am already familiar to some extent. Norway, does not charge fees, and so provides an interesting example of the successful implementation of an entirely publicly funded system. Chile charged fees and now plans to abolish them, and therefore provides an interesting case study of the issues that arise in such cases; England and Australia have well-developed formula funding arrangements that combine fees and income-contingent loans with government grants, but take a rather different approach one from the other.
19. England in fact has had three funding regimes within the past 10 years, all including the charging of fees. The first ran from 1998 until 2006 and involved an upfront fee of £1000 only, with substantial government rebates for disadvantaged students. The second applied between 2006 and 2012, and involved a fee of around £3000, supported by loans whose repayment was income-contingent when the student was working subsequent to graduation - that model maintained a substantial government grant for teaching paid direct to universities. The third, since 2012 has trebled the fee, again supported by substantial loans that cover the entire fee and are repayable on an income-contingent basis, but has effectively removed direct government grant to universities (there is residual grant for some expensive subjects). Unless otherwise stated, the arrangements described here (and in the country report in the Annex) are those that obtained between 2006 and 2012, which are likely to be those most relevant to whatever emerges in Ireland
20. In all cases information was obtained from personal knowledge and desk-based literature reviews, and in the case of Norway and Australia was checked with the relevant ministry.
21. In addition, in some specific cases where relevant, references are also made to the experience or practices in other countries.
22. There is no suggestion that practice in these countries – or any other – provides a model for Ireland to follow. Every country has a different starting point, and different political and social considerations apply. But undoubtedly some of the lessons that have been learned will be helpful as the Committee considers the direction that is appropriate for Ireland.

### A. Governance

23. All the systems reviewed have highly autonomous higher education institutions and this is reflected in their financing systems. In particular, although the funding for each institution is calculated in great detail, in all the countries examined the core funding allocations are made as a single block grant which universities are able to spend as they please, without reference to the way the allocations were calculated. On the other hand all also include a small amount of specific funding, allocated for

specific purposes, which universities are obliged to spend on the purposes for which the money was provided.

24. Like England, Ireland has a buffer body to regulate and fund higher education institutions. It is the job of these bodies to decide on the method for funding higher education institutions, and then for distributing those funds, with the money made available by the Government for this purpose.

## **B. Funding arrangements - principles**

25. All systems considered, apart from the new arrangements in England since 2012, provide grant funding for teaching (where the Government provides grant directly to universities), although in Chile Government grants are only available to a small number of universities (public and private).. In three of the cases (not Norway) fees are charged as well (although Chile plans to discontinue fees). In all cases, both the level of grant funding and the level of fees that public HEIs may charge are controlled by the Government (although there is a proposal in Australia to remove any constraint on fee levels in the future).
26. In Australia and England the Government provides loans to students to enable them to pay these fees, and these loans are repayable on an income-contingent basis subsequently, so education is free at the point of use. That was not the case in the 1998 fee arrangement in England, where fees had to be paid up front, but where there was very substantial government fee forgiveness based on means testing of students. In that respect the original England fee arrangement was similar to the present arrangements in Ireland with the 'registration' charge. Chile is more complicated, and students may benefit from grants to pay fees (means-tested), or from government loans or loans from financial institutions, guaranteed by the Government, so effectively the interest rate is subsidised. In England and Australia – but not in Chile – all students may obtain government-supported loans if they attend an approved institution.
27. England and Australia, like Ireland, have an explicit policy that for education (teaching) similar activity will be funded at similar rates whatever the institution in which it is provided (though the Australian proposal to allow universities to set fees at their own discretion undermines this, that does not undermine the principle that government funding will be provided even-handedly). It should be noted that in none of the systems examined is the perceived quality of education a criterion for differential funding, though other rewards for quality might be introduced – the ability to recruit more students for example.
28. In England and Australia the formulae used to distribute government funds have the same basic elements as the arrangements currently in place in Ireland:
  - Full-time equivalent numbers (all have mechanisms in place to convert part-time student effort into FT equivalents)
  - Weightings for different academic subjects which are, in principle, objectively set and do not vary much between countries
  - Weightings in respect of specific types of students, reflecting the policy concerns of the individual country (most particularly disadvantaged students)

- All include an element in their funding models intended to encourage the recruitment of students from disadvantaged background, and also to recognize the additional cost of enabling such students to succeed in their studies
  - Other weightings specific to the country concerned (such as a geographic component).
29. England, Norway and Australia allow for a certain amount of research activity from within the core funding – as does Ireland. The English and Norwegian formulae explicitly have a separate component allocated on research-based criteria, with a substantial degree of discrimination in the allocation of the research component of the block grant – more so than in Ireland. As a consequence there are significant differences in the amount of core funding allocated to different institutions with similar-sized student bodies. This component of the core funding formula is distinct from research income obtained from Research Councils. All countries have a Research Council whose role it is to fund projects, and the majority of funding for research comes from these as well as from research contracts from private sources. In all cases, the research component of the block grant effectively supports the expenditure that universities incur in pursuing externally funded research projects, as well as allowing a certain level of research activity not supported by project grants and more directly linked to the teaching function of universities.
30. All include an amount of funding outside any formula, to enable national or regional priorities to be promoted that might not be achieved through the money provided to institutions to pursue their own priorities; but such amounts are kept to a minimum.
31. All encourage higher education institutions to raise funding beyond what they receive in grant and fees (for example by entrepreneurial activity, seeking research contracts, raising funds from alumni or donors, etc.), which are not taken into account in calculating their entitlement to government grant.

### C. Data

32. Other than Chile, all countries analysed rely on data, and have created data collection mechanisms to enable them to have the reliable data that they need to operate the funding system. All also carry out data audit, to satisfy themselves that the data on the basis of which they allocate funding are accurate. This is a very important component of the funding arrangements. If the Government is to make funding allocations based on data returned by the institutions themselves, and especially if these data are to inform competitive funding allocations, with some institutions receiving less than others, it is essential that all concerned can be confident of the data on the basis of which such allocations are made.

### D. Control of student numbers

33. Control of student numbers is key if costs are to be controlled. Without control of student recruitment, one of three results is inevitable:
- The cost to the Government will increase
  - Student fees will increase

- Unit funding (the amount of money a university has to spend on each student) will decline and quality will be threatened.
34. It is interesting therefore to note that all the reference countries allow universities to recruit freely, without any constraint on numbers – although in England numbers were controlled until 2014, and it remains to be seen if the new freedom for controls remains in place – controls have already been reintroduced for private providers because of budgetary concerns as well as the incentive it offers universities to recruit students regardless of their suitability for university level study. The price paid for this policy in Australia is that, as Government funding is constrained, fees have risen steadily over the past 20 years both in absolute terms and as a proportion of the base funding, and it is now proposed that student fees should be allowed to rise without the Government setting a limit. But as a result per capita funding has remained more or less constant through the period. Chile’s experience is, if anything, even more extreme, and graduate debt as a proportion of income is by far the highest in the world. By contrast in England until 2012 student numbers were controlled by the Government, which ensured that per capita funds for teaching were maintained. These are in contrast to the experience of Ireland where student numbers have been unconstrained, but funding has been limited and per capita levels of funding have deteriorated severely. Only in Norway, which has fewer economic constraints than the others, does unrestricted recruitment not appear to have had any deleterious effects.

#### **E. Performance funding**

35. In Norway and Australia, as in Ireland now, explicit amounts of money are effectively removed from the core grant that institutions receive, and are then allocated to them on the basis of performance criteria. These criteria are partly based on indicators, and partly based on negotiated outcomes that each institution commits to achieving, failing which it is denied part or all of the performance fund. Chile also has a performance fund, but this is allocated on the basis of competitive bidding.
36. England does not have such an explicit “performance pot”, and there is no “contract negotiation” between the funding body and institutions. However, it has arguably the most competitive performance funding of all the countries studied: one third of the total available for allocation as core funding is allocated competitively according to research criteria, leading to highly differentiated allocations between universities. Also, the funding model for education (teaching) only counts students present in institutions at the end of the year, not at the beginning, so incentivizing institutions to ensure that their students do not drop out, and penalizing them if they do.
37. Although performance funding has become widespread, care is nevertheless needed to ensure that that it does not have unintended consequences and that the behaviour that it incentivises is behaviour that is desired. For example, in England where research funding is highly performance related and where teaching is not, there is growing evidence that teaching and education have suffered and have been neglected as a result. The obvious answer might appear to be to have a stronger performance funding element for teaching. The problem with that is that it puts a student attending a poorly performing university at a double disadvantage – not only has the University been identified as poorly performing, but it will have fewer resources at its disposal to spend on the

student's education. It is no coincident that quality and teaching performance are not in general among the criteria for the allocation of teaching resources.

38. Another example is provided by Denmark, which replaced full-time equivalent students as the measure of volume that was counted for the purpose of the funding formula with the number of graduates produced. That provided an incentive to universities to improve their efficiency and increase their efforts to ensure that their students succeeded. However, that was quickly overshadowed by a concern that it incentivised universities to reduce their standards and to graduate students that might previously not have been deemed to have achieved the appropriate standard. If such a measure is to be introduced then it will need to be accompanied not just by a robust quality assurance mechanism, but by a mechanism for ensuring standards across the system.

#### **F. Different rates of funding for different academic subjects and different levels**

39. All systems considered have different levels of funding for different academic subjects - normally between 4 and 6 different funding levels (although Australia has 8 at present it plans reduce the number) and all have roughly similar ratios of funding between the funding groups.
40. But none of the countries considered fund postgraduate students at a higher level than undergraduate – though there is no reason why they should not do so, as one mechanism to create different funding levels between different institutions.

#### **G. Negotiation with institutions**

41. Australia and Norway include discussions between the Government and individual institutions that are eligible for funding as part of the funding and governance process – something that has recently begun in Ireland.
42. In those countries, these discussions help establish institution specific performance measures against which performance is assessed and performance funding allocated, but they also serve to ensure that while autonomous, universities are sensitive to and reflect government priorities.
43. It is noteworthy that in the case of Australia and Norway the number of institutions is rather small and so such negotiations are feasible. That is even more so in Ireland. One of the reasons why England does not have this as part of its arrangements is surely not a matter of principle, but because of the much larger number of institutions funded by the Higher Education Funding Council for England (HEFCE).

#### **H. Private universities**

44. Norway, Chile and Australia provide government grants to some private universities. England does not (although students attending some private universities may obtain subsidized government loans to pay their fees, as they can in Australia and Chile too. In this respect, they mirror the USA, where students attending private higher education institutions are eligible to obtain publicly funded need-based loans and scholarships). The difficulty in all relevant cases is deciding to which private institutions to allow access to public funding. All have different criteria, reflecting local circumstances.

## I. Different ways of doing things

45. Simply requiring universities to do more with less is not a prescription for greater efficiency. Doing more with less is not the same as being more efficient. However, there are a number of measures that have been taken in other countries that go beyond simply requiring institutions to do more with less and arguably have led to greater efficiency – but in all cases there is a trade-off between the reduced costs and some other desirable outcomes .

### Expansion of the private sector.

46. Private universities are relatively uncommon in Western Europe (though they are far more common in England than previously), but in this respect Western Europe is at odds with the rest of the world. Elsewhere, where private universities have been encouraged that has been in part a mechanism for increasing provision in order to cater for demand that the public sector was unable to meet.
47. In principle, and if quality can be assured, that is a logical step. However, especially when there is a strong tradition of universities as part of the public service and an insistence on the public benefit from higher education, such a policy can be particularly difficult to introduce. Moreover, where the private sector includes for-profit institutions then the political issue becomes even more problematic. Nor are the problems just political. Chile and England, as the United States, have encountered serious difficulties with private for-profit universities receiving large amounts of public subsidy through students obtaining grants and loans, and making provision of questionable quality. If a private sector is to be encouraged then very robust quality assurance processes must be applied.

### 'Parallel students'

48. in Australia and a number of other countries public universities are permitted to recruit a certain number of students (sometimes varying by subject and stated as a percentage of the total student body), in respect of whom the University receives no funding from the Government and the students are not entitled to government loan or other support, and whose fee is intended to cover the full cost of provision. However, such arrangements are manifestly inequitable, and can be characterised as privileging the not so clever rich over their less privileged peers.

### Different functions for different institutions – within a single system

49. The research university is a somewhat special and comparatively expensive type of institution, and there is a strong argument that not all students need to attend such an institution for the full duration of their programmes. California is the most quoted example of a "system", comprising Community Colleges, generally providing two-year associate degree programmes and low-level training and preparation; State Universities that in theory do not do research and do not offer research degrees; and the University of California system with its campuses throughout the State, which in theory provides for the top 12.5% of students and which in addition to undergraduate programmes undertakes research and provides research degrees.
50. The Community Colleges are relatively cheap and the University of California campuses relatively expensive. But it is in theory possible for a student to take two years of a degree at a Community

College and then transfer, if they have met the required standards, to either a State Universities or to the University of California, at a fraction of the cost of someone spending four years at a university.

51. Such arrangements may be ideal in principle, but unless starting with a clean sheet, to impose such a system on an existing system is politically extremely difficult. To insist, for example, that universities that might have considered themselves to be research institutions should no longer undertake research will give rise to strong resistance. It also implies fragmentation of the academic profession and creating an even stronger hierarchy than exists at present. Nevertheless, it is rational and economic, even if utopian. And in Ireland, with the development of the clusters that are intended to be complementary in function, it could just be that such an approach can be contemplated

#### Cut down institutions

52. In the UK, Coventry University has established what it calls "Coventry college" which students can opt to attend and take exactly the same programme as in the University, but without any of what it described as "the frills" of things like extra-curricular provision, sports and other facilities for students, students unions etc.. In theory the standard of the qualification is exactly the same, but much cheaper to provide. The risk here, of course, is that the students attending such institutions will have a much inferior experience than students attending the University proper, and that it will be students from poorer backgrounds that will have this cut down experience.

#### Two-year degrees

53. There has been some experimentation in England with providing degree programmes intensively over two years instead of three, by extending the academic day and the academic year. The reviews of such provision have been mixed, and generally they have not proved hugely popular among students – and have been less popular with staff, for obvious reasons. Nevertheless, such programmes may have their place, and they certainly ensure better use of the facilities of institutions. However, such arrangements assume a somewhat utilitarian view of the nature of higher education, and assume that the only purpose of attending university is to acquire a body of knowledge or skills. That may be so for some students and programmes, and in fact two-year programmes have only really been successful for a limited number of professional courses, and generally in private institutions.

#### Online courses

54. Online courses and open and distance learning more generally are sometimes suggested as a means by which the cost of higher education can be reduced. There is very little clear evidence about this, and what evidence there is points in different directions. Certainly, it is notable that in the United Kingdom HEFCE funds the Open University (OU) on exactly the same basis as it funds other universities, and indeed before it took over responsibility for funding the OU, when the OU was funded directly by the Department, its level of funding per student was higher than that of HEFCE funded universities.
55. Similarly, Massive Open Online Courses (MOOCs) are often mentioned as a disrupting force that will revolutionise the cost of higher education, but such claims are less frequent now with a few years'



experience. They will probably take their place eventually as part of a blended learning environment, and may contribute in a modest way to containing costs, but there is no evidence at present that this will be the case, and certainly no evidence from the past that online or blended learning has proved to be a cheaper form of provision than more conventional approaches.

### Endowments and private funding

56. In the USA, and to a lesser extent in England and Australia, universities secure sometimes significant private income from individuals and corporations, and fundraising has become big business – the most successful institutions employing large numbers of fundraising staff in dedicated units.
57. Government can help. In England for example HEFCE established a matched funding scheme that ran from 2008 until 2011, and provided different amounts of matched funding – ranging from 1:1 to 1:3. HEFCE allocated about £150 million through this scheme, and the independent review of the scheme judged that it had generated over £0.5 billion of donations. Wales too ran a similar scheme during that period.

### J. Access issues

58. One consideration that arises especially in a country like Ireland, where there is a special concern about equity generally and equity of access to higher education in particular, is whether any of the different funding arrangements raise specific issues with regard to equity of access. The answer is, perhaps slightly surprisingly, that there is no evidence so far that, if the arrangements are constructed appropriately, equity of access has proved to be a particular matter of concern.
  - With upfront fees, equity of access is likely to be a particular concern, but in general where students have to pay upfront the government pays the fee on behalf of the poorest students and there is a mean test applied to ensure that the payments that are required of others to some extent reflect the ability of families to pay.
  - With fees supported by income contingent loans and deferred payments, education is free at the point of use and students are only required to repay when working subsequently. The experience of England and Australia so far, is that these arrangements have not had any impact on participation generally and participation by students from the poorest backgrounds in particular.
  - In the case of a graduate tax, there is no empirical evidence, but there seems no reason to expect that equity of access is likely to be an issue any more than it is in the case of fees with income contingent loans.
  - Some of the second-order approaches described above – such as parallel students and the encouragement of private institutions – might raise equity of access issues. But such issues might be avoided if the arrangements are constructed in such a way as to mitigate the undesirable effects (for example by requiring institutions that offer parallel places to apply needs blind admissions to these places, supported by scholarships and bursaries).
59. Most of the discussion about the impact of different funding arrangements, and an arrangement based primarily on student fees in particular as in England, has focused on the impact on full-time

students. It should be noted though that in England there has been a serious and unexpected – certainly unintended – consequence arising from the trebling of the student fee: there has been a serious reduction in the number of mature full-time students and more particularly part-time students of all ages. Both consequences might have been anticipated with better and deeper analysis - both are entirely rational and economic responses to an increase in the cost and the risks of paying the higher prices arising from the changes. The consequences were exacerbated in England by the fact that loans to pay the increased fees were only available for full-time students, and although some loans for part-time students have been introduced subsequently that appears not to have made a great difference. The experience in England appears to be that part-time students need to be treated not just as well as full-time students, but probably better in order to maintain levels of demand for higher education.

## Section 4: Issues for consideration in the Irish tertiary education funding arrangements

60. This section discusses the Irish experience in funding higher education, and matches and compares that with experience elsewhere. There are a number of respects in which the Irish arrangements are unique, not to say problematic, and indeed which contribute to the reason this review was established.
61. Among the features in Ireland that stand out when comparing the Irish arrangements with those in other countries are the following:
- Public funding has for the past seven years has been, and remains, tightly constrained, and institutions have been subjected to year-on-year reductions in funding while rapidly increasing their student number. As a consequence there has been more than a 20 per cent reduction in the amount of funding per student and a 30% decline in the staff to student ratio
  - Students do not pay a "fee" but pay a "student contribution" set at €3000 per year, and which is effectively a fee by any other name. The student contribution is subject to means tested government support, and in reality a substantial number have the student contribution paid on their behalf by the Government.
  - Perhaps because of this, there is no sign that participation in higher education in Ireland by the disadvantaged is compromised by the funding arrangement.
  - There is no loan support available to students to pay the student contribution, which is payable up front, with the consequence that for many higher education in Ireland is not free at the point of use.
  - There are effectively no controls over the number of students that institutions may recruit. Because the regime for the allocation of government grant includes a per capita amount paid to institutions as the first call on the funds available, there is some incentive for institutions to increase their recruitment; but it is a zero-sum game and those institutions that do not increase numbers lose out to those that do. That is a perfectly reasonable policy so long as it is the Government's intention to maximise student recruitment, but it does have the impact of further reducing per capita funding.
  - The ability of institutions to manage the reductions in funding to which they have been subjected is constrained by the limits on their management autonomy, and in particular the ability to hire and fire staff, and to decide on rates of pay.
  - Academic staff in Ireland have in the past been relatively well paid, so part of the reduction in funding has been absorbed by constraints on salaries. Notwithstanding that there has been a significant worsening of staff student ratios, as referred to above.
  - There is in place a national strategy and a strategic dialogue between the HEA and institutions, among whose intentions is to create a more coherent system of provision. The extent to which this leads to greater efficiency and effectiveness remains to be seen.

- Private higher education is rare in Ireland and there is no current Government policy in relation to it.
- Until recently there were two different systems for funding the Universities on the one hand and Institutes of Technology on the other, but the methods of funding are converging
- There is in place a rational and objective formula for distributing government grant to institutions
- There is in place, with the QQI, a well-developed and functioning independent quality assurance process.

62. Against this background, the development of a new financing arrangement will need to begin with a number of high-level political and policy decisions by the Government, the most significant being the following:

#### **A. Fair or unfair?**

63. Some funding systems result in large disparities in the incomes of institutions that broadly provide for the same number of students, and others are designed to minimise the differences. In general, the two approaches are characterised by more or less rigorous performance-based funding and in particular more or less of the funding allocated according to research criteria, with the quality of research produced, however measured, being the discriminating factor. In general, the degree of differentiation that can be tolerated depends on social and cultural considerations. As it happens, all the countries surveyed have relatively large differences between the best provided for institutions and the least. However, there are some systems –the Scandinavian countries, for example – where the differences are far less than in others, and the system is designed to reduce these. By and large, a system with smaller differences is likely to have fewer elite institutions than those with larger differences, but arguably will have good quality institutions more widely throughout the system. There is a clear social and policy choice here for the Committee to consider.

#### **B. What if any tuition fees may be charged, on whom, and in what circumstances?**

64. It is important to consider the conditions under which tuition fees might be charged, but it is not something to which an objective or universally applicable answer can be given. It needs to be answered in the context of the policy and political priorities of each country and the social environment. For example:

- The government may wish to means test liability for fees or eligibility for whatever fee support is provided, such as loans provided to pay fees. In terms of a deferred payment approach, this would be somewhat illogical, because as pointed out above, a well-designed fee, loan and repayment system will recognise the benefit – in terms of future earnings apart from anything else – that students receive, and that benefit is independent of the means of their parents.
- It may wish to introduce fees for some subjects and not others – in Australia, where fees are levied for all subjects, there are nevertheless some subjects (like law and economics) where higher fees are charged. By the same logic, it will be possible to charge fees for some subjects and not others

- The Government may wish to limit the grant it pays to institutions so as to pay them only in respect of students in their first one or two years (depending on the type of academic program), and require students in other years to pay fees beyond that.
65. In some countries where institutions do not in general charge fees, they are nevertheless permitted to do so for students beyond their "quota" of government-supported students. It should be cautioned that such an arrangement privileges those able to afford to pay.
  66. A funding system will need to take account of any tuition fees that institutions may receive. In those countries surveyed as part of this study, tuition fees received from domestic students are treated as part of the core funding of institutions. In some of those countries, institutions are allowed to charge higher fees to international students – important when looking at alternative sources of funding. Such income is not taken into account in determining core funding, because such students do not count towards assessing government grant, and, assuming their fees are set at an appropriate level, have no cost.
  67. Where the fees are part of the funding regime, governments need to decide the extent to which their level is to be controlled. In public universities governments almost invariably control the level of fees that universities may charge. In the United States these are generally controlled by the State legislature, in Europe by national governments. The reasons for this are easy to understand. The level of fees in universities is a highly political matter with social implications. As it happened, in Chile it appears that the Government does not explicitly control the fees charged by public institutions, though there is an informal limit set by virtue of the maximum loan that the government will provide to support fees – see countries below.
  68. It is notable though that in the United States research has shown that at times when public funding for higher education has been limited because of economic problems fees have tended to rise to compensate universities for the income that they lost, but then when public funding increased again fees did not reduce but stayed at their previously increased levels.
  69. Fee levels can be fixed at a given level or permissive (fees may be charged up to maximum – variable fees). In the latter case, as the English experience shows, fees tend to be charged by almost all universities at the maximum level allowable. That has posed a problem in England where the government budgeted on the basis of a certain average level of fee, and anticipated variations around this average (this mattered in terms of public finance because the average level of fee determines the average level of loan, and as loans are subsidised that has implications for public expenditure). As fee levels were higher than anticipated, loan levels were higher too and so were the public subsidies required. However, that has not deterred either the Australian nor the English governments from their plans to deregulate student numbers and in the case of Australia deregulate fee levels as well. As discussed above that has potentially serious implications for public finances; and unless the extent of government support for loans is limited (for which there is no plan at present in England, though there is in Australia) such an arrangement may ultimately prove unsustainable.

### **C. What support arrangements should be provided for students from disadvantaged backgrounds?**

70. The appropriate approach to providing support for students from disadvantaged backgrounds depends very largely on the nature of the financing arrangements. Two general considerations arise:

- First, propensity to attend higher education is generally related to socio-economic background, and so incentives may be required for those from disadvantaged backgrounds who might otherwise not consider higher education. The logic behind such incentives is questionable. These incentives are not available generally until a student has completed their secondary education and enters higher education or is on the point of doing so. The evidence from England certainly, and it is believed more generally, is that once students get to that point they almost always go to higher education and do not require such incentives. The problem tends to be at an earlier stage when they are deciding whether to stay on in education and take the qualifications needed for entry to higher education. All else being equal, particularly in circumstances where higher education is funded by the state and there is no direct private cost, such incentives are a deadweight cost. If the aim of the expenditure is to encourage young people who might otherwise not have considered going to university, it would be better to invest the money at an earlier stage.
- Where financial incentives might be better justified is where there is a cost to the student, even if deferred, as in the case of fees with deferred repayment loans – financial incentives would address the apparently greater ‘loan aversion’ of those from economically disadvantaged backgrounds. However, as mentioned above, there is no evidence that such arrangements in England or Australia have had an impact upon participation, and where there is no upfront cost and where repayments depend on how much students subsequently earn, there is little logic in taking family circumstances into account. Nevertheless, both England and Australia provide non-repayable means-tested grants in respect of students from poor backgrounds.

71. In Chile, bizarrely, in addition to means tested grants, merit-based national public scholarships are also available, and there are other benefits that accompany high performing students (such as eligibility of institutions for public grant). Such arrangements are explained on the basis of providing an incentive to institutions to improve their quality and so be attractive to high performing students. This is not the place to argue this issue, but there is no empirical evidence that such merit-based approaches have the benefit claimed, and they are almost certainly an unnecessary and wasteful cost.

### **D. Which institutions are to receive government grants?**

72. This question may not have much resonance in Ireland, where private institutions are so few in number. But if Ireland is to increase the number of its private institutions as, for example, England has done recently, then it becomes crucially important to control their access to public funding. Chile, England and the United States have all experienced problems arising out of insufficient control. In all cases private institutions play a varying but generally valuable role in providing higher education for

students who might not otherwise be able to access it, but there has been a cost which could have been avoided.

73. In Norway, Chile and Australia government grants are provided to some private universities. In England that is not the case, although students attending some private institutions may obtain subsidized government loans to pay their fees – as they can in Australia and Chile. The difficulty in all cases is deciding which private institutions may be allowed to have access to public funding. All have different criteria, reflecting local circumstances. Chile provides government grant regularly only for a small number of institutions (the 16 CRUCH universities, which include all the public and a small number of private universities) and there is no systematic basis for the allocation of grants to these: grants are based roughly on historic allocations, adjusted from year to year. But in Chile there is also a programme of grants to non-CRUCH private universities based on the numbers of top-scoring students they recruit (a measure that clearly benefits those providing for better off students who tend to be those that perform best)
74. A rigorous accreditation process is a precondition of allowing private universities to have access to funds – and indeed accreditation/quality assurance is an important element in any funding regime. There must be quality assurance arrangements in place – equally applicable to both public and private institutions - in which students and other stakeholders have full confidence. Ireland has the QA structures in place to enable this, and if private institutions are to increase in number in the future, then QQI will need to develop its functions to monitor and control them.

#### **E. Are there to be different funding arrangements for different types of institutions?**

75. Creating different financing systems for different classes of institution complicates matters – like how to decide how much in total should be reserved for the different institutional types, and the parameters and values to be incorporated into the different formulae. Moreover, creating a basic formula which is applied to all institutions, in which some institutions will do well on some parameters and less well on others (research parameters for example), enables the Government to differentiate between institutions in their funding.
76. In Norway, for example, which has a single formula, state funded universities receive 22 per cent of their funding through the research channel, but university colleges receive only 6 per cent of funding through the research channel. Similarly in England where the same formula applies to all institutions different institutions receive very different amounts of grant through the research channel.
77. So while there may be concerns that applying a single formula to very different types of institution – universities, Institutes of Technology and in the future Technological Universities - might lead to a loss of distinctiveness between them and an inappropriate convergence of levels of funding that does not recognise their different functions, that does not have to be so.
78. So long as the parameters of the funding formula are chosen carefully and appropriate values applied to the different parameters, then a single funding formula is able to discriminate very substantially between types of institution. For example, if a formula provided higher levels of funding for students in their third and fourth years of study than in the first two years, it would provide lower levels of funding to those institutions that provide only two year programmes. Similarly, if research activity is

recognised and funded appropriately, then those institutions that undertake substantial research activity will receive considerably more funding than those that do not. This is, in fact, the arrangement applied in the case studies reported on below that apply formula funding, and in Ireland as well. It is not felt necessary to apply different formulae to different types of institution, yet very different levels of funding are provided depending on the different functions of those institutions.

#### **F. Are student numbers to be controlled by the Government?**

79. This decision has implications either for the cost to the Government or for the quality of the education that can be provided with the money available. All of the countries studied allow unlimited recruitment, although until last year England did not.
80. The consequences are very different. In Australia the result has been increasing student numbers with implications for an increasing financial burden on the Government, which the Government proposes to relieve by allowing higher education institutions to charge fees without limit. That contrasts with the experience of Ireland, where the consequence has been increasing student numbers but without increasing government contributions, and and limited increases in the student contribution to compensate. The result has therefore been a reducing per capita spend, resulting in serious concerns being expressed lately about quality. Only in Norway, which is relatively wealthy and where there is a serious commitment to the social benefit of increasing levels of education, has the increase in numbers been accepted without problem and levels of per capita funding maintained.
81. The relationship between the number of students, cost and quality is logical, and is independent of the number of potential students in the age cohort. Nevertheless, as the size of the cohort of young people in Ireland increases in the coming years, the financial incentive to limit student numbers also increases in absolute terms. But the link between cost, numbers and quality remains.

#### **G. Is the Government going to fix the total amount of money it wishes to spend for higher education? Or is it going to set a price per student and accept whatever consequences follow for public expenditure?**

82. This is an extension of the previous point, and the different decisions about this have different consequences for the Government:
  - If it fixes the total it will spend on higher education and limits the number of students, then the unit price will be maintained and quality will be preserved, but at the possible cost of limiting the opportunities for young people to benefit from higher education.
  - If it fixes the total it will spend on higher education, and does not limit numbers, then there is a likelihood that the unit price will reduce, with possible threats to quality.
  - If it fixes the price per student and does not have a fixed government budget then it risks incurring greater expenditure than had been anticipated.
83. The government primarily needs to decide what it wants: quality or increasing access. If it wants both, the money needs to come from somewhere and in those countries where fees are not an option, this has generally proved very difficult to achieve, so the reality is that either numbers are controlled, or



quality has suffered. However, the relationship between cost and quality is theoretical and logical, but not based on empirical evidence, which is hard to establish and makes it difficult to make the case against cuts, or in favour of increases, in per capita funding. So the 'right' level of funding per student is not a figure that can be objectively decided. But the trade-offs cannot be avoided, even if they cannot be precisely stated.

84. Australia is an example of a country where the Government has set a price per student (different prices for students in different disciplines), and no matter the number of students recruited it is committed to paying that price and meeting the cost. Consequently the demand on the higher education budget has increased to unaffordable levels that have become a matter of government and social concern, with the consequence described above: the Government's response has been to fix the total government higher education budget in future and allow institutions to increase their tuition fees to make up for the loss of funding.
85. Ireland on the other hand also allows unlimited student recruitment, but has a fixed government budget, and so the price per student that it pays reduces as more students are recruited.
86. Until last year, England differed from Ireland and Australia, and both set a limit on the number of students that any institution might recruit and fixed the total government budget for higher education. So per capita funding in England has remained stable, government funding has been fixed and predictable, and the system has grown over the years, but in a controlled way. It remains to be seen what the consequence of the recent liberation of student number controls will be, but it is widely expected that the policy will not endure. The government said that it would fund the policy by selling the student loan book, a policy which has been described by the Institute of Fiscal Studies as "economic nonsense".
87. It might be thought theoretical and unlikely that the Government might fix the amount of funding per student, and indeed in terms of public budgeting that is problematic. However, that is exactly what has been done in Australia and Norway (and effectively in England where numbers have been controlled and publicly controlled funding per student - including the fee, the level of which is controlled by the Government - has remained more or less constant in real terms).

#### **H. What other sources of funding – besides taxpayer-provided funds from the government, and student contributions – are to be available**

88. The most innovative approaches described above are
  - A contribution from employers via a graduate employment premium
  - A graduate tax levied either on all, including past, graduates – with all the practical and political implications that would have – or on future graduates only – the implications of that for equity.
89. It is assumed that institutions need no encouragement to seek out other sources of funds from grants, contracts and entrepreneurial activity.

## **I. How much control does the Government wish to exercise over the way that the money it provides to institutions is spent?**

90. The ideal funding system would provide incentives for universities to improve their performance in ways desired by the Government, but would then simply provide the money that is due to institutions to spend as they see fit. If the parameters of the formula are well chosen then if institutions do not respond to these incentives they will receive less funding in the future.
91. If the Government fears that some institutions will abuse this freedom this can be controlled without necessarily exerting detailed control over how institutions spend their money. Conditions of grant (or as in England a funding contract) could accompany the grant paid to each institution, and these can cover any number of issues – they could for example require that institutions receiving government grant pay salaries in accordance with national pay rates etc. But ultimately the funding system itself should provide appropriate incentives for good behaviour.
92. Moreover, the basic funding mechanism can be used to incentivize appropriate behaviour, without requiring direct government control. A clear example of how this works is in the arrangements in most countries for research funding. Generally, there is no control exercised to ensure the money is used for research. But if the university does not maintain the level and quality of research outputs, then next time the funding is calculated, it will receive less.
93. Similarly, if the education outputs (numbers, credits or graduates) that are provided for are not produced, then next time the funding is calculated the institution will receive less.
94. The alternative of detailed government controls over how the money is spent risks limiting the ability of institutions to be creative and flexible, and would be flying in the face of trends elsewhere in the world.
95. As it is, the management flexibility of universities is limited, in terms of their ability to manage their staff, and optimise their use of the resources at their disposal, and the Government will need to consider whether the present controls need to be maintained.

## **J. Is funding to be based on objective formulae, or on negotiations with individual institutions?**

96. This question is posed, really, only for completeness though there are many (mainly less developed) systems that still rely on less objective methods for funding their universities – generally based on historical allocations. However, most modern financing mechanisms are based upon objective formulae which have the advantage of avoiding any suspicion of favouritism and avoid argument about fairness (except at the stage when parameters are being set and values attached to those parameters. That is where the argument and discussion takes place. Once those have been fixed the funding tends to follow without argument). That is the arrangements in Ireland at present. It should be noted that among the systems studied here Norway allocates part of the resources it provides to institutions on a historical basis.

97. One small consideration in relation to a purely formula-based system is that there may be volatility in a University's funding as its student numbers increase or decrease, or its performance on the parameters of the funding formula changes from year to year, and that is one of the reasons for Norway's approach. However, in Ireland, and in England too, the volatility associated with a purely formula driven system is reduced by incorporating a "moderating factor", whereby institutions cannot lose more than a certain amount from one year to the next.
98. In all cases other than Chile, and as with Ireland, core funding is formula based and does not rely on negotiations between the funding body and institutions. However, also like Ireland since the strategic dialogue process began, Australia and Norway include discussions between the Government and individual institutions as part of the funding and governance process. In those countries these discussions help establish institution specific performance measures against which performance is assessed and performance funding allocated, but they also serve to ensure that while autonomous, higher education institutions are sensitive to and reflect government priorities. They are not, though, part of the process for setting core funding.

## K. International students

99. International students are a potential source of income – see for example the UK where nearly 10% of the total income of all institutions comes from international students fees and in Australia where international students account for 17% of the student population. In both those cases international students pay substantially higher fees than domestic students, and receive no government subsidy. Ireland's International Education Strategy "Investing in Global Relationships 2010-2015" set a target of increasing the proportion of international students from 6 per cent in 2011 to 15 per cent by 2015. That is achievable and would imply, as the number of domestic student entrants are set to increase by about 15 per cent in that period, a nearly trebling of the number of international students from today's base. That would not transform the financing of Irish universities but it would represent a significant and worthwhile increase in funding.

## Conclusion

100. So, the main issues that need to be considered as the Expert Group considers future funding arrangements for Ireland, and based on international experience, seem to be the following:
- Whether the student contribution is to be formalised in a fee, and if so if a loan system (preferably an income contingent repayable loan) is to be provided. That would enable higher education to revert to being free at the point of use.
  - Whether or not fees with a loan are to be charged, what new sources of income are to be contemplated, for example an employer graduate premium levy.
  - Whether there is to be a graduate tax, and if so whether such a tax is to be levied on all past graduates, with all the difficulty that that would involve in terms of identifying such people, or only on future graduates, with implication for equity.
  - If the Government is to continue to be the principal or even the sole provider of funding for higher education, whether it will guarantee a level of funding per student, with the implications that that

might have for the level of public finance on the one hand and student number controls on the other.

- More generally, the trade-off between quality, student numbers and levels of funding needs to be addressed explicitly. This is difficult because empirical evidence about the relationship is hard to come by, but that does not mean that such a relationship does not exist.

# APPENDICES

## ANNEX A. FUNDING HIGHER EDUCATION INSTITUTIONS IN ENGLAND<sup>2</sup>

### INTRODUCTION AND BACKGROUND

In England, like in Ireland, the role of the Government is to set the high-level policy for higher education, and in particular to determine the total amount of money that the Government is willing to invest, and it is then the job of a buffer body – in England's case the Higher Education Funding Council for England (HEFCE) - to determine the mechanism for distributing that money and then to carry out the distribution. The Government provides HEFCE with funds to distribute to institutions for both teaching and research. So the first decision HEFCE has to make is the division of its total funding between teaching and research, which it does with advice – sometimes tantamount to instruction – from the Government.

Unlike Ireland and Australia, but like Norway, the research component of the core funding provided to institutions is substantial. Whereas in Ireland and Australia the research component of core funding has been estimated at between 5 per cent and 10 per cent, in England it is nearer 33 per cent (25 per cent in Norway). The mechanisms for the allocation of the research and education components of core funding are quite distinct and are described separately below.

In addition to HEFCE grant for education and research, universities also receive funding from HEFCE for other expenditures, notably for special projects and for capital expenditure. The mechanisms for distributing these separate elements of funding are described below, but these are not part of core funding.

So from HEFCE, on behalf of the Government, universities receive funding, calculated separately, in three blocks:

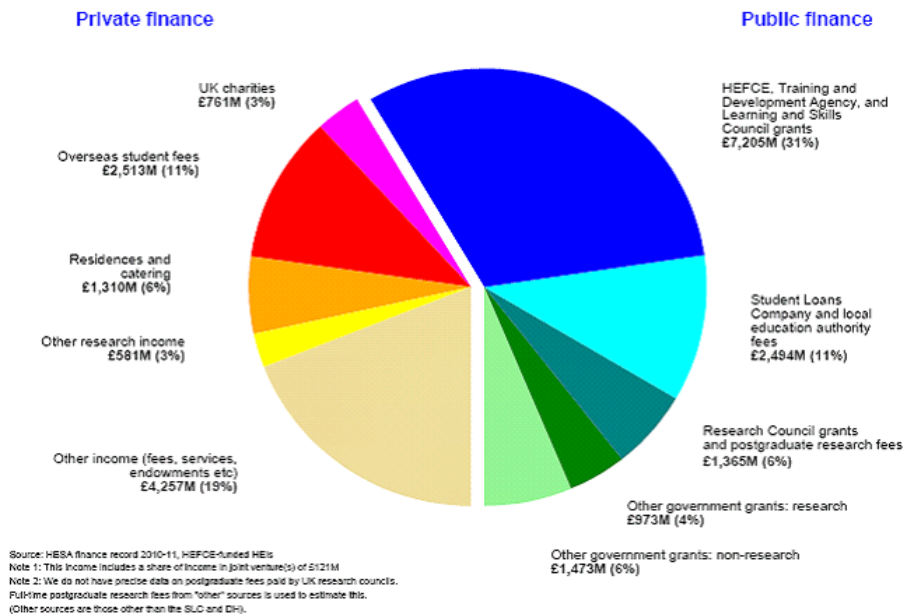
- *Funding for Education (Teaching)*
- *Funding for Research*
- *Special Funding*

And in addition to funds provided by HEFCE universities receive substantial income from other sources, the most significant which were student fees. However, these fees were regarded as part of the core funding, and were taken into account by HEFCE in the calculation of its grant. A summary of the sources of income of higher education institutions in England is shown below.

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<sup>2</sup> Note: This is a description of the funding method that was introduced in 2006 and ran until 2012

**Sources of finance for HEFCE-funded HEIs 2010-11: total £22.9 billion**



However, as with Australia, much of this non-core income carries its own expenditure, and so is not available for the general running of the University. On the other hand, as described below in the section on research, that income which comes as research grants and contracts enables universities to undertake much of the research that they undertake.

HEFCE's basic approach to the funding of education is to provide a certain amount of funding for each student recruited, depending on the characteristics of the student and in particular the subject they are studying. There is no difference in the funding provided for a student in one university compared with a similar student at another. Reality is more complicated than that but that is the basic approach. For research the approach is quite different. There, funding is allocated highly selectively by taking the volume of research conducted by a University in a particular subject and multiplying that by an indicator of quality, which leads to a highly selective and uneven distribution of research funds between institutions, with some receiving very much more – and therefore more core grant – than others.

It is important to note as well that, having calculated these measures of teaching income and research income, the two sums are combined and allocated as a block grant for each University to spend as it sees fit.

Higher education funding in England has recently undergone a radical change that is widely expected to change again in the near future. This note accordingly describes the arrangements until 2012, which was relatively stable and well-regarded. A short summary on the current arrangements is also included for completeness.

**Current Fee Arrangements (2014/15)**

As part of the 2012 tuition fee reforms, fee limits for undergraduate courses for 2014/15 have been set by the Government as follows:

- Publicly funded university or college: £9,000 for full-time courses

- |   |  |
|---|--|
| (with an access agreement)  | £6750 for part-time courses                                  |
| • Publicly funded university or college:<br>(without an access agreement) | £6,000 for full-time courses<br>£4,500 for part-time courses |

Student grants (means-tested) and student loans are available to support students in meeting the costs of higher education. Two types of student loans are available:

1) Tuition Fee Loan:

The following limits apply:

Full-time in a publicly funded Institution	Up to £9,000
Full-time at a private Institution	Up to £6,000
Part-time at a publicly Institution	Up to £6,750
Part-time at a private Institution	Up to £4,500

2) Maintenance Loan:

Loan amounts are dependent on a range of factors, including household income. From September 2015, the maximum loan amount payable is £8,009.

Repayments:

Students are not required to repay the loan until they have graduated and are earning over £21,000 a year.

- The amount to be repaid is dependent on the earnings of individual graduates. A repayment rate of 9% is applied to earnings above the repayment threshold of £21,000.
- If income stops or falls below the threshold, repayments will automatically stop.
- Any loan remaining after 30 years is written off
- The Government has estimated that the subsidy on student loans will be 45% i.e. for every £1 it lends, it will only receive back 55p. Analysts in the UK expect that only c. 25% of students will repay the loan in full and have predicted that the subsidy could be higher, though the Government has recently proposed reductions in the subsidy, intended to reduce the cost of the system to the taxpayer.

Interest:

- Interest on the loan is linked to the rate of inflation and is adjusted each year in line with the Retail Price Index (RPI). Rates will vary depending on the students' circumstances, and can increase to an 'RPI plus 3%' rate for higher incomes.



## EDUCATION

Until 2012 responsibility for financing education was shared between the Government which paid grants direct to universities, and students to whom the Government provided a loan, which then was subject to income-contingent repayments after graduation.

Since 2012, the arrangements have changed and the Government no longer provides grants directly to universities (other than a relatively small amount in respect of some high cost subjects). Students pay a much higher fee, for which they continue to receive an income-contingent loan from the Government, and this fee is intended to cover all the direct and indirect costs of education. The present arrangement was widely considered to be unsustainable and following the election the Government is consulting on proposals to reduce the cost to the taxpayer, but at the price of increasing the cost to students (or more accurately to graduates). The arrangement that is described in this note is that which applied prior to 2012.

Although universities receive income separately from HEFCE and from students paying fees, these together account for the core funding that universities receive for education, and as in both Australia and Ireland, HEFCE considers both student fees and the grant that it provides in aggregate in its calculations of a University's entitlement.

Two broad principles underpin the method HEFCE uses to fund education:

- *Similar teaching activities should be funded at similar rates, with variations from these rates based on previously determined factors*
- *Institutions seeking to increase their student numbers should do so through allocations of additional funded places agreed by HEFCE*

In addition, the funding method is designed to have the following five features:

- *Transparency: the funding method should be clear and visible. The data on which allocations are based are auditable and, wherever possible, public*
- *Predictability: the method and its parameters should be predictable, so that an institution knows how decisions it might take, and changes in its circumstances, may affect its funding*
- *Fairness: differences in funding between institutions should be for justifiable reasons*
- *Efficiency: the funding method should impose as small an administrative burden as possible on institutions*
- *Flexibility: the method should be flexible enough to respond in a strategic manner to external policy changes, and particularly to developments in HEFCE's own policies.*

## APPLYING THE FUNDING PRINCIPLES: OVERVIEW OF THE METHOD

Because teaching funding is part of a block grant, institutions have considerable freedom as to how they distribute it internally to support their own aims and objectives. The funding method aims to ensure that HEFCE allocates an appropriate level of teaching funding for an institution as a whole. As such, it is designed to be efficient in distributing funding between the institutions in the sector, not between departments, functions or activities within an institution. HEFCE does not expect institutions to mirror its allocation methods for their own internal purposes. Although HEFCE's funding is determined according to the learning and teaching activity in academic departments, it is intended to support institutions more generally with their overhead expenditure, including, for example, their central facilities such as libraries, computer centres and administration.

The combined total of grant and tuition fees is referred to as teaching resource or simply as resource.

$$\text{Resource} = \text{HEFCE grant} + \text{tuition fees}$$

### CALCULATING THE HEFCE GRANT

There are four stages in calculating the mainstream teaching funds for each institution.

- *Stage 1: For each institution HEFCE's model calculates a level of standard resource. This is based on each institution's profile of students, and takes into account:*
  - *the number of students*
  - *subject-related factors*
  - *a geographic factor (London weighting) intended to recognise the higher cost of operating in London*

*Standard resource is not, however, what HEFCE actually pays institutions, but rather a notional benchmark of what HEFCE thinks institutions' share of overall resource should be to reflect their teaching activities.*

- *Stage 2: HEFCE calculates the actual resource for the institution (called 'assumed' resource). This is based on the teaching grant that HEFCE actually paid to the institution for the previous year, adjusted for various factors such as inflation, plus an assumption of student tuition fee income.*
- *Stage 3: HEFCE compares the standard resource with the actual resource and work out the percentage difference between them.*
- *Stage 4: If the difference between the standard resource and the actual resource is no more than 5 percent (whether that is plus 5 percent or minus 5 percent), then the HEFCE grant will be carried forward from one year to the next. This plus or minus 5 percent margin is called the tolerance band and is the means by which HEFCE ensures institutions receive similar resources for similar activities without seeking to constrain them unduly. For institutions outside the tolerance band, their grant and/or student numbers need to be adjusted so that they move to within the tolerance band.*

### FUNDING FOR ADDITIONAL STUDENT NUMBERS

The funding method allows institutions to obtain additional funded student places according to criteria and priorities that HEFCE determines. Each year (assuming that the Government makes the funds available) it runs a competition for allocating any additional student numbers that can be provided with these additional funds, which are funded at average funding rates.

### OTHER ELEMENTS OF THE TEACHING GRANT

In addition to its mainstream teaching funding, HEFCE has made targeted allocations to support important or vulnerable features of HE, in accordance with key policy initiatives. These include, in particular, widening participation, which recognises the additional costs of recruiting and supporting particular types of student.

### DETAILED DESCRIPTION OF THE METHOD

## Stage 1 *Calculating the standard resource*

### *Student numbers and volume of teaching activity*

Student numbers are counted in full-time equivalent (FTE) terms. A part-time student is measured by comparing their learning activity with that of a full-time student, so that each will count as a variable proportion of one FTE. In determining an institution's standard resource for the coming year, HEFCE counts the FTE students recruited the previous year and adds on additional student numbers awarded for the coming year.

### *Subject-related factors*

As with Norway, Ireland and Australia, the HEFCE funding method takes account of the fact that different subjects cost different amounts to provide. So when calculating the standard resource for each institution HEFCE applies weightings to student numbers according to the subject of study. HEFCE has defined four broad groups of subjects (price groups) for funding, and has set relative cost weights for each based on information it has on these relativities. These price groups are similar to those used in Australia (though with a very significant difference in respect of Medicine). The price groups used in Ireland are identical, but presumably that is no coincidence.

Price group	Description	Cost weight
A	The clinical stages of medicine and dentistry courses and veterir science	4
B	Laboratory-based subjects (science, pre-clinical stages of medic and dentistry, engineering and technology)	1.7
C	Subjects with a studio, laboratory or fieldwork element	1.3
D	All other subjects	1

### *Geographical factor (disadvantaged weighting)*

Having weighted the student numbers by their subject price group, HEFCE then applies a further weighting, where applicable, to recognise the higher costs of operating in London. London weighting varies depending on the institution's location. Institutions in inner London receive a weighting of 8 per cent, those in outer London 5 per cent.

### *Calculating the standard resource per weighted FTE*

HEFCE calculates a sector-wide basic amount of resource for an FTE student by dividing the money available to fund teaching (HEFCE's grant plus tuition fees) by the total number of weighted FTE students in the sector. This basic rate of resource (grant plus fee) is called the base price and is the rate for a standard FTE student in price group D (before the application of London weighting).

For example in 2008-09, the base price was £3,964. This therefore implied resource rates for each price group as follows:

- £15,856 for price group A
- £6,739 for price group B

- £5,153 for price group C
- £3,964 for price group D.

The total weighted student FTEs for an institution is the sum of the student FTEs weighted by price group and London weighting.

The standard resource for an individual institution is its total weighted student FTEs multiplied by the base price.

### *Stage 2 Calculating the actual resource*

For each institution, HEFCE starts with the mainstream HEFCE grant for teaching that it received the previous year, adjusted to allow for any additional student numbers won in the competition for additional numbers and deducting any shortfall in student recruitment in the previous year, and then adjusted again for inflation.

*It then adds an assumed income from tuition fees* paid by or on behalf of students.

That sum – the adjusted grant received in the previous year plus the income from fees – is the institution’s actual resource.

### *Stage 3 Calculating the percentage difference*

The next step is to compare the results of Stage 1, the standard resource, with the results of Stage 2, the actual resource. The percentage difference is calculated as follows:

$$\frac{\text{actual resource} - \text{standard resource}}{\text{standard resource}} \times 100$$

### *Stage 4 Calculating the teaching grant*

The funding method aims to ensure that similar activities are funded at similar rates in all universities and colleges. Therefore if an institution is within 5 per cent around the standard resource (the tolerance band), HEFCE’s funding will roll forward from the previous year. In other words, HEFCE will pay the amount calculated in Stage 2, less the assumed income from tuition fees. This applies to most universities and colleges.

For institutions which fall outside the tolerance band, HEFCE takes action to bring them within the band. This may be by expecting institutions to increase or reduce their student numbers, or by adjusting funding. This mechanism ensures that universities receive neither too much money for each student recruited (important in terms of equity) nor too little (important for the maintenance of quality and standards).

#### Targeted allocations

Targeted allocations support important or vulnerable features of HE, in accordance with key policy initiatives. Targeted allocations are provided outside the mainstream teaching grant, and are few in number, and HEFCE’s explicit aim is to reduce these to a minimum, so maximising the amount of funding provided to institutions to spend at their discretion. By far the most significant targeted allocation in 2008-09 was £364 million allocated to support the encouragement of students from disadvantaged backgrounds and with disabilities to attend higher education, and to support them during their studies. Others included allocations to support part-time students, institutions with old and historic buildings, and other institution specific costs.

#### The funding agreement

HEFCE draws up a funding agreement each year with each of the institutions it funds. This is constructed in broad terms, and implies a weighted volume of teaching activity which is being funded against the resource being allocated.

Institutions can vary their recruitment as long as the weighted volume of teaching activity is maintained within certain implied limits. So, for example, they may vary the balance of recruitment between full-time and part-time students or between subjects in different price groups.

When the funding announcements are made, well ahead of the start of the relevant academic year, institutions cannot be sure about their recruitment in that year. There may be fewer students than expected, the balance between subjects may vary, or the number of students not completing the academic year may differ from expectations. In most cases this does not affect their grant. But if actual recruitment results in the actual resource differing by more than 5 per cent from standard resource, then action is taken to draw the institution back within that tolerance band. This would be achieved by adjusting student numbers or funding in the current and/or subsequent years.

When HEFCE provides funding for additional places to institutions, it expects them to increase their student numbers. HEFCE therefore sets them a target for their overall FTE students. If they recruit below the target, HEFCE reduces the additional funding it has provided. However, HEFCE gives institutions a second chance to deliver the expected increases, recognising that start-up difficulties may prevent full recruitment in the first year.

Other recurrent teaching grants that are not part of the mainstream allocation may also be subject to separate conditions of grant and monitoring arrangements. One critically important element of the HEFCE funding agreement is that institutions in receipt of HEFCE funds must abide by the conditions set by the Government for fees, including the maximum fee charged.

#### Data monitoring and audit

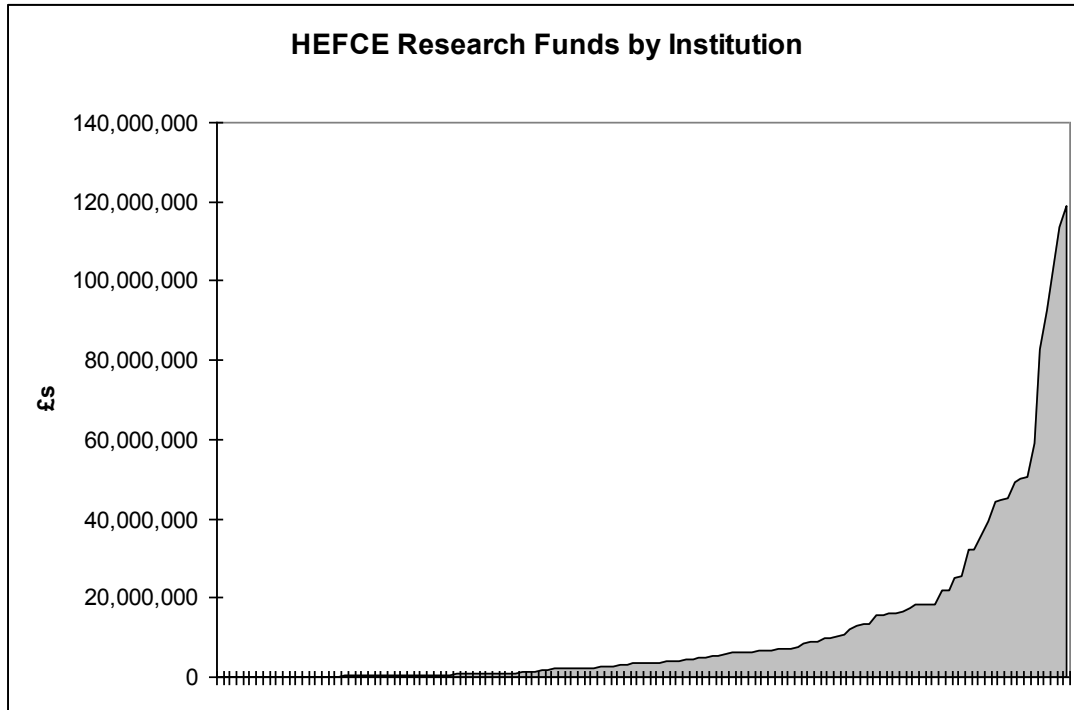
Every year HEFCE receives data returns from institutions and uses this to identify any that have received more or less than their funding entitlement. In addition it audits the data that institutions have provided on the basis of which funding allocations are calculated. If it finds that erroneous data have resulted in institutions receiving higher allocations than would otherwise have been the case, then the funding for those institutions is reduced accordingly. In one recent case a university was required to repay \$60 million because they had wrongly claimed for students who had not completed their programmes.

## *RESEARCH*

In England public funding for research is provided through two sources (the dual support system). HEFCE provides funding to support institutions' research infrastructure. Its funds go towards the cost of the salaries of permanent academic staff, premises, libraries and central computing costs. The Research Councils provide funding for specific programmes and projects. The grant they give for a project is calculated as a proportion of the full economic cost of the work to be done (90 per cent for new grants applied for).

The general funds HEFCE provides also support fundamental and 'blue skies' research in institutions and contribute to the cost of training new researchers. This research – that is to say research for which project grants are not available - is the foundation of strategic and applied work, much of which is later supported by Research Councils, charities, industry and commerce.

Unlike funding for teaching, which is allocated in an even-handed way with broadly similar amounts going to all institutions for similar provision, funding for research is provided highly selectively, with a small number of institutions receiving large amounts, and most receiving very little. The discrimination between institutions is based on an assessment of the relative quality of their research. Quality in turn is measured in a periodic Research Assessment Exercise (RAE), now called the Research Excellence Framework (REF). The chart below illustrates the differential funding well. Each point on the X axis represents a single institution, and the Y-axis showed how much they received from HEFCE in 2008-09 through the research component of the core grant.



It will be seen that a very small number of institutions received the lion’s share of the money and most received very little at all – and some received nothing. HEFCE’s funding for research in 2008-09 was £1,460 million (compared to £4632 million for education), almost all of which was allocated with reference both to the quality and volume of research activity – called QR (Quality-Related research funding), allocated as follows.

*Stage 1 Determining the amount provided for each subject across the system as a whole*

QR funds are divided between 68 subject areas (units of assessment). Each subject is assigned one of three **cost weights**, which have been calculated to reflect the *relative costs* of research in those subjects. These are multiplied by the *volume* of research in each subject (mainly based on the number of faculty in that subject) to work out the total funding for that subject.

The three *cost weights* are:

		Weighting
A	High-cost laboratory and clinical subjects	1.6
B	Intermediate cost subjects	1.3
C	Others	1.0

*Stage 2 Distribution of the subject totals between institutions*

The 68 subject totals (for each unit of assessment) are distributed to institutions in proportion to the *volume* of research conducted by the institution in that subject multiplied by the *quality* of research in the subject for each institution.

The *volume* of research for each institution in each subject is measured in the same way as in Stage 1 above.

The *quality* of research is assessed in the Research Assessment Exercise (RAE - now the Research Excellence Framework, or REF), a process conducted roughly every 7 years or so.

In the last RAE, each institution was awarded a rating, on a scale of 1 to 5\* (five star), for the quality of its research in each unit of assessment in which it was active. The table below shows how these ratings relate to the quality funding weights. Ratings 1, 2, 3b and 3a attract no funding (a multiplier of 0), while a rating of 5\* attracts roughly four times as much funding as a rating of 4 for the same volume of research activity (a multiplier of 4.036 for a 5\* compared to a multiplier of 1 for a 4 rating). As a result, HEFCE's funding of research is highly selective.

*RAE ratings converted into funding weights for each unit of assessment*

2001 RAE rating	Funding weights in QR model
3a, 3b, 2, 1	0
4	1
5	3.180
5*	4.036

There are other features in HEFCE's funding of research, but these are the most pertinent. Funding received in this way, although calculated in great detail, and separately from the funding for education, is then rolled into a block grant which the University is free to spend at its discretion. It is not earmarked for research. However, given the extremely competitive environment, if the university does not at least maintain the quality and volume of its research it will almost certainly receive less in the next funding round. So although a block grant is allocated, there is a very strong incentive to use the money allocated on research criteria to undertake research – though not necessarily to spend it in exactly the way allocated.

On the other hand, universities receive funding for research projects from the Research Councils (which provide universities with an aggregate amount of project funding roughly equal to that provided by HEFCE in core grant), and that funding has to be spent exactly for the purposes that it is received

*OTHER RELATED FUNDING*

Moderation

As is the case in Ireland, to help maintain stability, HEFCE phases in changes by moderating increases or decreases in teaching and research funding to institutions that would otherwise be affected by large fluctuations.

Special funding and earmarked capital

Special funding and earmarked capital are used to secure change or to fund activities that cannot be secured through core funding. HEFCE aims to provide as much of its funding as possible through the block grant, and continuously reviews the level of special funding to ensure it is justified; and so the amount of special funding continues to decline. For 2008-09 HEFCE allocated £338 million for special funding, or 4.5 per cent of the total available.

Earmarked capital is additional funding provided by the Government to support sustainable investment in higher education. £902 million was allocated for earmarked capital grants in 2008 – 9 (12 per cent of the total available).

Most earmarked capital is allocated by formula. All HEIs that receive HEFCE recurrent funding for teaching or research receive an allocation under these programmes. The amounts by strategic aim are set out in the table below.

*2008-09 Special funding and earmarked capital grants by strategic aim*

<b>Strategic aim</b>	<b>Funding</b>
Learning and teaching	£546 million
Research	£435 million
Sustaining a high-quality sector	£160 million
Widening participation	£36 million
Excellence in delivery	£1 million
Joint Information Systems Committee	£60 million
<b>Total</b>	<b>£1,238 million</b>

*2008-09 Special funding and earmarked capital grants by type of activity*

<b>Activity</b>	<b>Funding</b>
Institutional funding or national programmes	£1,071 million
Non-institutional funding	£142 million
Special institutional funding	£25 million
<b>Total</b>	<b>£1,238 million</b>

‘Institutional funding or national programmes’ includes funding that is available to or allocated to all HEIs. This includes funding for Centres for Excellence in Teaching and Learning, rewarding quality enhancement, the Aimhigher programme (for widening participation), the Capital Investment Fund and the Strategic Development Fund.

Non-institutional funding is provided where the activity is delivered by or through another body. This includes funding via the Higher Education Academy, the Quality Assurance Agency, Higher Education and Research Opportunities, Foundation Degree Forward, the higher education regional associations, the Leadership Foundation, the Joint Information Systems Committee and the Higher Education Policy Institute.



## ANNEX B. FUNDING HIGHER EDUCATION INSTITUTIONS IN NORWAY

Norway differs from the other countries reviewed, insofar as students at public institutions pay nothing towards the cost of their education, and never have. Indeed the current Higher Education Act of Parliament specifically requires public higher education to be free (though it should be noted that students attending private institutions do pay a fee). The insistence on free education is undoubtedly in part because of the wealth of the country, but also because of the political/social culture. It also has a highly unusual arrangement for funding higher education institutions, with the majority of the funds allocated to universities taking no account of the volume of activity or any other objective measure, but being based on historical allocations.

### *The Norwegian higher education landscape*

There are 3 main types of institution operating in Norway:

- A small number of traditional universities that have had a special status which is eroding
- University colleges which were previously distinct in undertaking no research, but that distinction is fading
- Specialised university institutions.

Universities have self-accreditation rights for all programmes at all levels. University colleges and specialized university institutions have self-accreditation rights at all levels where they have an accredited PhD programme, and for all programmes at bachelor level. In theory, private institutions may exist at all three levels, but in fact Norway currently has no private universities, though there are three private specialized university institutions, and many private university colleges.

As with the other countries reviewed, HEIs in Norway are autonomous. They receive money from the Government – or rather from Parliament on the recommendation of the Government – and are then free to spend this money as they see fit, no matter how the grant was calculated.

Until 2002, there was no performance related element in the funding – funding was allocated very largely on the basis of the number of students present. And HEIs were subject to close control by the Government. For example, each year the Government would determine the number of new faculty posts that were required across the system as a whole, and would propose this total to the Parliament. It then allocated the approved posts between institutions: institutions had no discretion about this sort of thing. The present arrangements have greatly increased the autonomy of institutions – they are allocated funds as a block grant, calculated according to the funding method and it is for them to decide how to spend these funds.

### *Funding system*

The new funding system was introduced for universities in 2002 and later expanded to include almost all higher education institutions (including private institutions)

The reforms of which the new funding arrangements are part were intended to make the system more incentive oriented. To deliver this, the new funding system, implemented as part of what is called "the quality reform", allocates funds according to a formula based on three components:

- A fixed component (basic allocation)
- A component based on education results
- A component based on research results.

The proportion of an institution's funding that each component represents differs according to the type of institution, as follows:

<b>Type of institutions</b>	<b>Basic</b>	<b>Teaching</b>	<b>Research</b>	<b>Total</b>
<b>Universities</b>	57	22	22	101
<b>Specialized university institutions</b>	57	24	19	100
<b>University colleges</b>	63	31	6	100
<b>Total Higher Education</b>	59	26	15	100

As illustrated in the table there is a distinction between universities and specialized university institutions, which do not receive those extra budget appropriations for research that are due to external funding and study points, whereas the allocation to university colleges does take these factors into account. These differences reflect national priorities and the strategic functions of the various institutions including e.g. their regional role. On the other hand, the university colleges do not receive extra budget appropriations for research according to their ability to obtain funding from the EU, nor for funding from research councils nor for doctoral degrees. Allocations to universities of course take all these factors into account.

Of the three elements that go to make up the recurrent funding of each institution the allocation through the "basic" (or fixed) element differs from the others in not being based on any sort of performance measure or measure of current activity. Its purpose is to ensure that higher education institutions are less vulnerable to the fluctuations in the number of students than would be the case if all the funding were based on the volume of activity or other measures of performance. The basic component is intended to support stability and selected priorities, such as special needs for a variety of disciplines and subjects, special needs for different regions, and operating expenses and maintenance costs for buildings.

Although 'fixed', this basic component of funding may be increased from time to time if the Government agrees with the institution to increase its baseline student numbers. If so, then the fixed funding is increased by

multiplying the number of students concerned by a rate of funding that differs according to the subject being studied (see below). In addition, the 'fixed' amount is updated each year roughly in line with inflation.

The "education" component averages around 25 per cent of the total allocation (more in University colleges and less in universities), and is based on the increase in the number of student credits obtained from one year to the next, together with the increase in the number of international students present. If there is a decrease then funds are reduced. This education-related "performance element" in the funding reflects policy concerns that the funding method is intended to help address:

- The expansion of the system, providing incentives to universities to admit more students
- The long time taken by many students to graduate (and the fact that a large number of students fail to do so)
- The desire to make Norway's higher education system more internationally orientated – this is not an economic consideration, but simply a desire to make Norwegian universities more international in their character.

There is no limit to the number of students that may be recruited and taken into account in the funding provided through the "education component". This provides an incentive for institutions to increase recruitment, but it also means an open-ended financial commitment for the Government, but one which so far has not proved difficult or controversial.

The present arrangements, like all the others reviewed, do recognise the different costs of different subjects in the "education" component of the block grant calculation. When the Government calculates what is due to each institution under the "education" component it weights each student according to his or her subject of study. These weights apply both to calculate funding for the performance element of funding as well as increases in the fixed funding due if an increase in the base number of student has been agreed. The weights are as follows:

<b>Category</b>	<b>Studies</b>	<b>Weight</b>
A	Clinical studies	4
B	Professional education in music, architecture and design	3
C	Master degree studies in natural sciences	2
D	Master degree studies (general) and lower level/bachelor degrees studies in expensive areas	1.5
E	Lower level/bachelor degree studies except for social studies and theoretical areas	1.25
F	Lower level/bachelor degree studies, social studies and theoretical areas	1

It will be seen that the weights used by the Norwegian government are not dissimilar to England or Australia, or indeed Ireland. These weights were set in 2001 and have remained the same since. And the corresponding values per student implied by these weights in the different cost categories were also set in 2002, and have been increased annually since, in line with inflation.

The “research component” of the funding method is clearly results related. Institutions compete for a fixed sum of money, determined by the Parliament. The available funds are distributed to institutions competitively on the basis of their performance against the following indicators:

<b>Indicator</b>	<b>Weight</b>	<b>Rate of funding for 2014 (in kroner)</b>
Doctoral candidates	0,3	340 313 per candidate
Research grants from the EUs 7th framework programme	0,18	1 392 per 1 000 Kroner won
Research grants won from the Norwegian Research Council & Regional Research Funds	0,22	166 per 1 000 kroner won
Scientific publications in international journals	0,3	33 265 per publication

Each indicator has a weight (second column), which determines how much of the 1.7 billion NOKs that are available in total will be allocated through that indicator. The last column provides the rate for 2014 per result (candidate, 1000 NOKs of research funding, and per publication point). It should be noted that because of the fixed limit of funds that are to be allocated and the changing results from year to year, the rates also change from year to year - for example, if the amount of EU-funding for all HEIs goes up, the rate received per 1000 NOKs will go down (unless the Parliament decides to increase the overall amount for distribution).

Most of these funds are distributed on the basis of performance (recently based on the production of scientific publications and the degree of funding from the EU and the Research Council of Norway) and 30% based on the number of positions for doctoral students. In contrast to the education component, there is a ceiling limiting the HEIs’ revenue generation. Those institutions that increase their funding from this source do so at the expense of other institutions.

The Norwegian system remains somewhat conservative:

- The Government meets the entire cost of education, requiring no contribution from students. Indeed, it does more, since it provides grants and loans for living expenses within Norway, but also grants and loans for fees as well as living costs for students wishing to study outside the country as well.
- The majority of the grants that it gives are allocated on the basis of historic distribution of funds – 60 per cent is based simply on what was received the previous year.

So the funding of higher education in Norway is predominantly a public affair (if income from the Research Councils and other public bodies is taken into account over 90 per cent of funding is from public sources). Nevertheless, the Government has introduced a performance element to the grants, and one which has led to an increase in both student numbers and research outputs. And the measures used for the different components of the ‘performance element’ are predominantly outputs (credits produced, research publications and grants obtained – though this last may be thought of as an input as well).

#### *Funding of research in Norway*

Different types of institution do different types of research, in part reflecting their history and their funding. The universities have the main responsibility for ensuring the scope and quality of basic research in Norway, which

accounts for much of the R&D conducted at the universities. R&D conducted at the specialized university institutions and the university colleges has a more applied character. For these institutions, basic research constitutes about one third and one sixth of their research activities, respectively. The variations in type of R&D activity between groups of institutions are partly due to differences in academic traditions. Basic research represents the largest share of research conducted in the humanities and the natural sciences, and the smallest share of research conducted in engineering, technology and agricultural sciences.

There are two main sources for research and development funding in the higher education sector in Norway: General University Funds (GUF) and funding from external sources.

As described above, there is a research outcomes component in the method used by the Education Ministry for calculating the basic grant (GUF) of universities; and for universities this is significant – amounting to 22 per cent of the total grant funding, similar to that of HEFCE in England, and providing a potentially major way of discriminating between the funding provided to different institutions and different types of institution. It also provides a strong incentive for those receiving this money to undertake more research. Although the funds they receive are a block grant and they are not obliged to use this money to do research, if they do not, then their indicators will reduce and the next time the calculation is done they will receive less. The system for the allocation of GUF was described above. Recently GUF funding constituted the majority of total R&D expenditure within the higher education sector.

External funding accounted for the balance of total R&D expenditure within the higher education sector. The most important source for external R&D funding is the Research Council of Norway, accounting for about half of these. The private sector is the second most important external funding source, and the increase in funding from private companies has been mainly due to a significant increase in funds from oil companies. Government and other national sources also constitute substantial funding sources for R&D conducted in the higher education sector.

Finally, Norwegian researchers in higher education also participate in EU research. However, although important strategically, EU funding is not a source of decisive importance for the Norwegian higher education sector.

So it will be seen that the main source of non-GUF funding for research in Norwegian universities is from the Norwegian Research Council and as with all the other jurisdictions that is based on project proposals and is allocated competitively.

Also worth mentioning is that the Research Council of Norway has periodically organized and implemented ambitious and large scale evaluations of Norwegian research in all major scientific disciplines. The evaluation teams invariably consisted of international professionals and scientists. Bibliometric methods have been applied together with more qualitative evaluation methods and peer review techniques. These evaluations revealed that several disciplines/fields of science held high standards (e.g. in mathematics, information science and chemistry), but also pointed to weaknesses in the Norwegian science base and in the higher education sector in particular.

Although not used in the allocation of GUF, there are some direct links between this assessment of research quality and allocation of other research funds to the higher education institutions. The recent establishment of Centres of Excellence at various HEIs was based on these assessments of research quality, and research projects funded through the Research Council of Norway always use external evaluation, including these assessments, as a decisive means for selecting projects for funding.

### *Other matters of note*

As part of the budget and monitoring process, the Ministry of Education and Research conducts annual consultative meetings with each institution. These meetings are important in the coordination and governance of higher education. It is in these discussions also that universities can make a case to be allowed permanent increased 'fixed' funding, either for a permanent increase in numbers or for some other reason.

The performance related elements of the funding model are based on performance two years earlier. That is simply a matter of data availability. It is important that the data are accurate – the system would be undermined, as with any system that relies on data, if it became known to the data that were used to allocate funding between institutions competitively were inaccurate.

## Annex C: Funding higher education in Chile<sup>3</sup>

### Background

Even more than most, Chile's higher education system is confusing and chaotic, and no aspect of the system more so than its arrangements for finance.

Chile's is a highly privatised system, that characteristic having been defined in the Pinochet years, when the entire country was taken in the direction of extreme neoliberal and free-market economics. Before that there were few universities – public or private – and all were publicly funded, but with levels of public finance declining they began charging increasing fees to compensate. The present arrangements were essentially put in place in 1981 when private institutions were allowed – encouraged in fact – but without any public support which was limited to the public, together with a small number of (mainly religious) private universities.

That system persists today: a small number of public universities; direct grant support limited to these and a smaller number of elite private institutions; and the vast majority of (private) institutions relying on fees and other income. Notwithstanding the relatively high cost, student numbers have grown apace, and Chile now has the highest enrolment rate in South America.

Despite the apparent acceptance by students of the relatively high personal commitment that higher education requires, over the past 3 years there developed a widespread and assertive student movement protesting against the present financing arrangements, which was capitalised upon by the left of centre presidential candidate Michelle Bachelet. Bachelet promised to reform the system and abolish fees if elected. She has been elected and is now faced with making good her promise, and has begun the process by a tax increase aimed specifically at relieving fees and replacing them with direct government provided grant.

### Taxonomy

The Pinochet policy reforms organised higher education into three institutional types – Universities, Professional Institutes (IP) and Technical Training Centres (CFT). Only universities may award degrees (undergraduate and postgraduate); Professional Institutes award professional and technical qualifications (but not academic degrees, and so may not offer programs that lead to professions that require an academic degree) and Technical Training Centres teach technical programs usually of two years of duration. The Universities are divided into the so-called CRUCH (the Council of Rectors) Universities and the rest.

The Pinochet era taxonomy remains in place, and the current disposition of higher education institutions in Chile is as follows.

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<sup>3</sup> Much of the information in this section came from personal knowledge, supplemented by information from the following sources: OECD Reviews of National Policies for Education: Quality Assurance in Higher Education in Chile 2013; World Education News & Reviews Dec 6, 2013 - By Kevin Rolwing & Nick Clark; World Bank Reviews of National Policies for Education: Tertiary Education in Chile 2009

## Taxonomy of higher education institutions in Chile

Institution Type	Number of institutions	Student Numbers
CRUCH Public Universities	16	326,000 (including Private)
CRUCH Private Universities	9	(included in above)
Non-CRUCH Universities	35	382,000
IP	45	332,000
CFT	68	144,000

Source: <http://www.mifuturo.cl/index.php/bases-de-datos/matriculados>

It will also be seen that 16 of the CRUCH universities are public and the remaining 9 private (6 of them associated with the Catholic University, and 3 lay) and these alone and to this day receive public funds. CFTs and IPs are all private. So in Chile there are just 16 public institutions of higher education, providing for a minority of students, with the majority of the more than million or so students (2013 figures) attending one of the nearly 150 private universities, IPs or CFTs. Private universities are all required by law to be non-profit, though there is a strong suspicion that some do in fact make a profit but conceal that in one way or another. The IPs and the CFTs may be for-profit or not-for-profit.

Some institutions have a very good reputation. Others do not, and the range of quality and standards is said to be very wide, as might be expected in a system where the majority of institutions are private.

Because of its highly privatised nature, national statistics about higher education are patchy, but based on the information that there is, the noncompletion rate is thought to be extremely high, and the time to completion among those that do complete very long. Student participation appears not to have been badly impacted by the high fees that are paid, but student success may have been. One other possible explanation for the slow rate of completion – other than the financial pressures experienced by many students - is the incentive that universities have to drag out the length of time that students attend. They certainly have no incentive to encourage them to complete rapidly.

### Financing Chilean higher education

Higher education institutions in Chile rely very substantially on private finance, although, like American private universities, many of the students who pay the fees on which the private higher education institutions rely receive grants or loans from the Government, so even private institutions are dependent on government finance in one way or another. Government grant to the 25 CRUCH universities is provided each year, roughly in line with changes in student recruitment, but without any systematic formula or other basis for establishing the total to be paid. Grant is based on previous funding levels, enhanced following negotiation. Although CRUCH universities receive significant amounts of government grant, they also charge significant fees.

Government grant is also paid to universities (public and private, CRUCH and non-CRUCH) that recruit from the top performing students in the national examination (27,000 students at the last count). That element of funding – the Indirect Fiscal Transfers (Aporte Fiscal Indirecto or AFI) programme - was introduced as a means of encouraging universities to raise standards, but it is widely regarded as unsatisfactory. The students that it

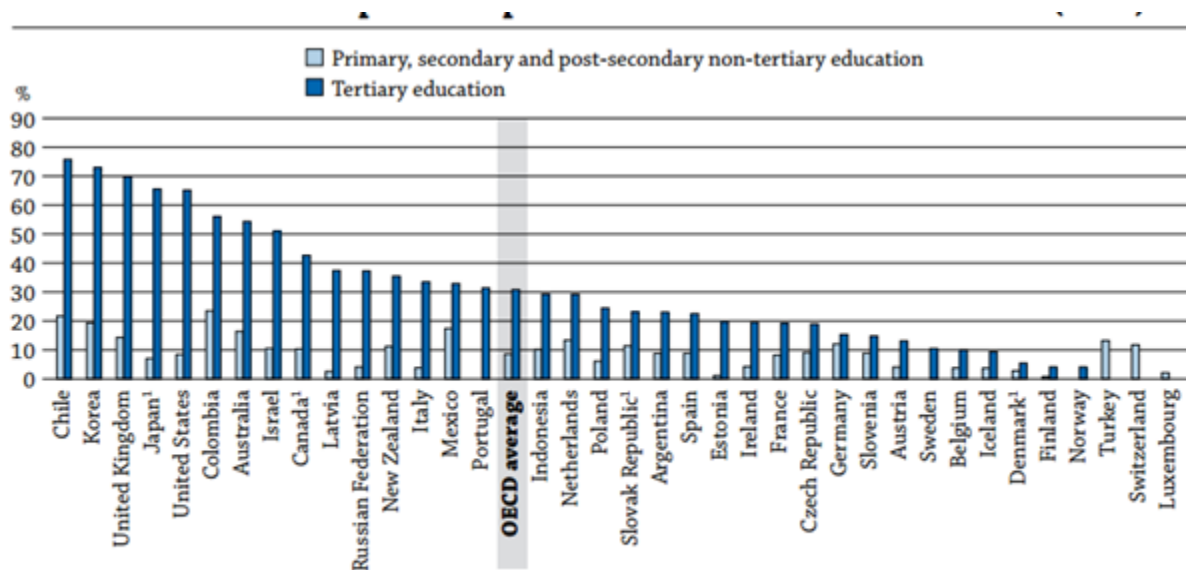


effectively supports are generally from the better off backgrounds, and this measure is not thought to have done anything to improve quality or standards.

Apart from a small performance fund (see below) those are the only two programs of direct government funding to institutions, available to 16 public and nine Private universities as a matter of course and those private universities that recruit from among the best performing high school students. All other funds received by universities come from student fees and other privately generated sources.

Chile's overall spending on tertiary education is 2.0% of GDP – among the world's highest - but public spending accounts for only 0.3% of GDP, among the world's lowest. Chile has the highest proportion of higher education funding the world provided from private sources, as is shown in the following chart.

### Share of private expenditure on educational institutions in OECD countries



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.  
 Countries are ranked in descending order of the share of private expenditure on educational institutions for tertiary education.  
 Source: OECD. Table B3.1. See Annex 3 for notes ([www.oecd.org/edu/eag.htm](http://www.oecd.org/edu/eag.htm)).  
 StatLink <http://dx.doi.org/10.1787/888933117478>

Source: OECD (2012). *Education at a Glance*. Paris: OECD.

Whereas many countries have used private institutions to absorb growing demand for tertiary education while maintaining free public universities, this is not the case in Chile. Fees at public institutions in Chile are high by absolute standards and are among the highest in the world when measured as a proportion of GDP<sup>4</sup>. On average even Chilean public universities (a small minority) receive nearly 80 percent of their operating budgets from sources other than government subsidies, with a range of 50% to 100%. This comes mainly in the form of tuition payments, which means that all but the most affluent need to take out large loans to cover their costs. The system is one of the most privatized in the world, both in terms of funding and total enrolments. Low public

<sup>4</sup> See Tertiary Education in Chile by Michael Crawford and María Paulina Mogollón - <https://openknowledge.worldbank.org/bitstream/handle/10986/10219/527530BRI0En1B10Box345577B01PUBLIC1.pdf?sequence=1>

spending per student by both regional and OECD standards, coupled with more expensive education than in most comparator countries, means that Chilean students and their families must finance tertiary studies mostly from their own resources.

Consequently, Chile also has by far the largest level of graduate debt relative to income in the world, as is apparent from the following table.

### Comparison of Debt Levels at an Aggregate Level

	Debt to Annual Income Ratio	Avg. Debt Service Ratio (monthly payment / monthly income)
Germany	14%	3.10%
Netherlands	31%	2.60%
New Zealand	36%	6.40%
Australia	39%	4.00%
United Kingdom	40%	2.90%
Canada	50%	6.60%
United States	57%	3.6 - 6.7%
Sweden	79%	3.80%
Colombia	94%	
Chile (weighted average)	174%	
15 yr repayment		18.00%
20 yr repayment		15.00%

Source: World Bank 2011 CAE Report, page 43. Data for Colombia are from ICETEX (2010); data for Chile are from Futuro Laboral 2009-2010; data for all other cases are from Alex Usher, "Global debt patterns", in *Canadian Higher Education Report Series* (September 2005): 14.

This was one of the drivers behind the student protest movement, and the political acceptance of the need for reform.

Over the years a bewildering array of government provided loan schemes and scholarships and grants have been put in place to support students, and enable them to pay the fees required to attend university. At the last count there were 20 scholarships of various kinds, for various purposes and with various conditions, mostly, with different merit and needs elements. The arrangements are ad hoc and incoherent and are recognised to be so by the Government. One scholarship scheme that is unusual known as "Becas Chile" was introduced in 2008, to provide 30,000 mainly graduate-level scholarships by 2018 to enable students to study abroad. The US\$6 billion initiative replaced the smaller President of the Republic scholarships. It requires scholarship recipients to sign an agreement stating that they will come home after completing their studies and work "for the good of the country".

The two main sources of government support for students paying tuition fees, however, come in the form of loans and support for loans. The original loan programme introduced after the Pinochet reforms as a way of relieving some of the burden on students was essentially an income contingent repayment arrangement on the Australian model. The Fondo Solidario de Crédito Universitario enables students at a traditional (CRUCH)

university to obtain a loan to cover tuition fees. With an interest rate fixed at 2%, repayments deferred until two years after graduation and set at 5% of annual income, with any outstanding debt written off after 15 years, the arrangement is actually more generous than the Australian or English arrangements and implies a significant element of government subsidy. However, that arrangement is means tested and limited to the traditional universities. The great majority of students at the great majority of institutions do not benefit from that scheme.

Since 2005 a new needs-based loan system - the State Guaranteed Student Loan Programme (el Crédito con Aval del Estado, or CAE in its Spanish acronym) - provides loans to students at all accredited institutions (public or private), subject to a means test. The loans come from private financial institutions and are guaranteed by both the state and the institution, with the state guaranteeing against the risk of non-repayment and the institution guaranteeing against the risk of dropout. Among the innovative features of the CAE are that because the institutions themselves must repay the loans if the students do not graduate, there is a strong incentive for them to choose students who have the ability to succeed and provide them with the assistance they need to avoid dropping out. To the extent that these loans are guaranteed there is an element of government subsidy, but beyond that repayments are not income contingent and have to be repaid over 20 years, with a real rate of interest, based on the Government's long-term borrowing rate.

Although the CAE is available to students attending private institutions, that is only so in respect of institutions that are accredited by the Government accrediting agency. Of the 61 CFTs currently operating in Chile, 16 have institutional accreditation. Of 44 IPs 20 are accredited. Of the 60 universities in the country 49 have accreditation including all 25 traditional universities.

Clearly, accreditation is valuable and has led to concerns about corruption. As a result of this, there is currently a great deal of political pressure calling for the overhaul of the accreditation system.

As an interesting twist, the Government determines the maximum amount of loan that is available to students, which varies degree programme by programme, and there are now 10,000 "tuition reference rates", each one with a different maximum loan limit. That itself is a measure of the dysfunctionality of the system. However, by having a tuition reference rate, that effectively sets a limit, or a tight constraint, on the maximum fees that can be charged. The government does not control fees but through providing a limit on the loan that is available the same purpose is served. Fees vary from about €2500 per year to about €7500. A small number of the best regarded institutions are clearly able to charge fees greater than the loans that are available to support them.

Performance funding is underdeveloped, as is inevitable in a system where directly provided Government funds are scarce. However, there is a small but growing performance funding programme. The MECESUP programme provides grants for quality improvement and upgrading of faculty qualifications on a competitive basis. More recently, MECESUP has begun to provide "performance-based contracts" to a pilot group of public universities. Under this mechanism, universities receive funding against a set of targets for institutional improvement, which are negotiated between the Government and the Universities concerned.

So public support of higher education in Chile is of 4 kinds:

- Direct support of CRUCH universities, through regular block grant
- Direct grants to universities recruiting top students, but no university is assured of grant from year to year
- Indirect support, through the programs of loans and scholarships to students to enable them to pay fees, and through guarantees to banks
- A small but growing performance fund.

Direct government grant (which goes largely to the 25 CRUCH universities) accounts for 38% of all government expenditure on higher education. Indirect support of higher education, through loan subsidies and grants to students, accounts for the majority, and the majority of students in Chile's higher education system benefit from this.

### **Recent developments**

In her election campaign Michelle Bachelet promised to abolish fees, initially for the poorest 50% of the population, abolish private universities and provide universal access to higher education. The reform process has begun with the imposition of a new tax, which will go part of the way to enabling some of these reforms. However, in recognition of the technical difficulties involved – quite apart from the political – the Chilean government has requested help from the World Bank to identify options for implementing the promised reforms, and a World Bank team has been working with the Chilean government for the past 6 months.

It is clear though that there will be no straightforward solutions. Government grant on the one hand and student tuition fees on the other – supported by loans or not – together with a private sector that can absorb some of the excess demand, are the only substantial sources of finance for higher education. If one of these is ruled out, let alone two, then the burden on public taxation, together with a different set of political issues, becomes substantial.

## ANNEX D. FUNDING HIGHER EDUCATION INSTITUTIONS IN AUSTRALIA

Base funding for higher education institutions (note, other tertiary institutions - vocational education and training colleges, for example - have different funding arrangements) comes from two sources. The principal source of funding is grants from the federal government (called Commonwealth funding).

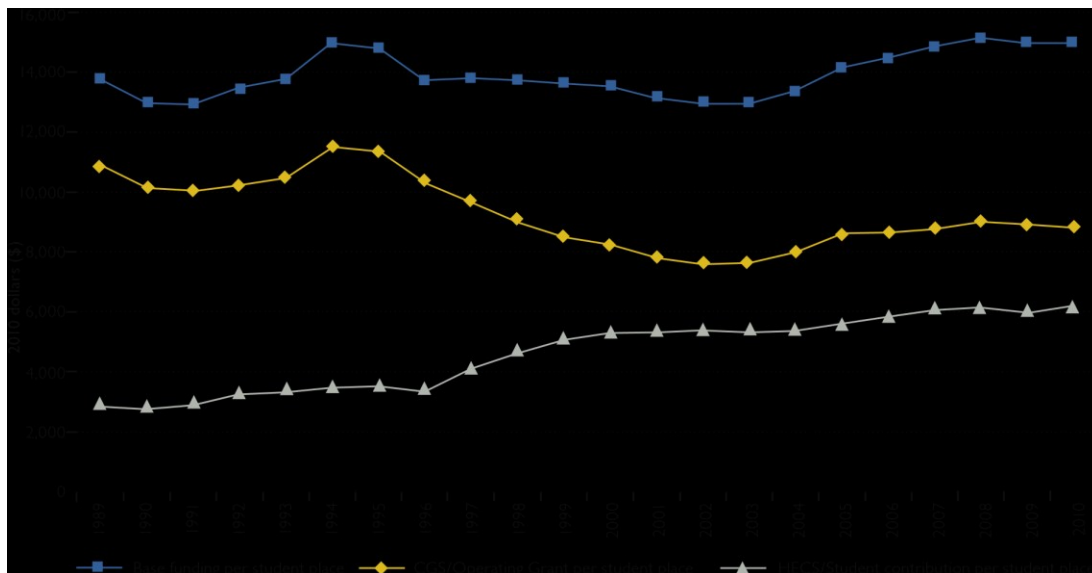
The second source of funding is student tuition fees. Australia was the first country in the world to introduce an income-contingent loans scheme to support tuition fees, in 1989. Tuition fees represent about 40 per cent of the base funding that universities receive, having increased from about 20 per cent since 1989.

### *Purpose of base funding*

The stated purpose of base funding is to enable universities to provide education for students, and this includes a contribution to the basic running and infrastructure of the institution. A recent study by Deloitte carried out on behalf of a review Committee established by the Australian government to examine the adequacy and method of distribution of the base grant concluded that on average base funding remained sufficient for this purpose, and was sufficient also to make some contribution to research activity within institutions. The review concluded that between 6 per cent and 10 per cent of base funding was currently being used by HEIs to support research activity.

The balance between the contribution to base funding of tuition fees on the one hand and Commonwealth grant on the other has changed over the years, as is demonstrated in the chart below.

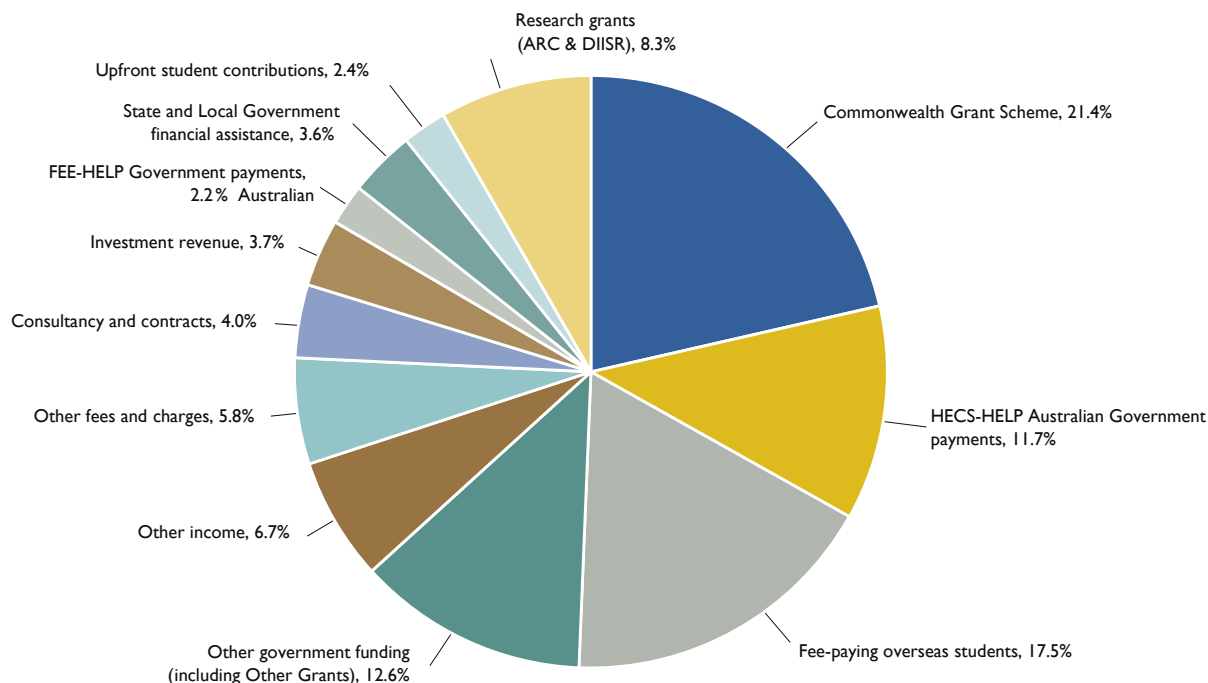
### *Income per Commonwealth supported place (2010 dollars)*



Base funding represents only a minority of the total funding received by universities in Australia – on average estimated to be about 35 per cent. Other funding sources include income from full fee-paying domestic and international students, income for research activity (from both government and non-government sources), contracts and consultancies, property and investment income, and donations and bequests.

## Sources of income of Australian universities

### Total revenue, by source, 2010



Note: Other income includes scholarships and prizes, non-government grants, net gain on sales of assets, foreign exchange gains and other sources.

Source: DEEWR 2011.

Although substantial, these other sources of income in general carry their own direct and indirect costs, and should not be considered to be part of the general resources available to the University for the institution's basic running and infrastructure costs. Research, of course, is another matter since by and large it is provided explicitly for that purpose. Research funding is discussed in more detail below.

### Calculation of base funding

The idea of base funding is to supply the total amount of money to universities that they need in order to provide for the education of students attending their institutions. It is calculated as the sum total of two sources

- Commonwealth grant
- Student fees.

If one decreases the other increases, and so

Base funding (Commonwealth grant + tuition fee) = FTE students\*average funding per student

The average funding per student on which it is based was established more than 20 years ago following a detailed study and its value has been regularly uplifted since in the light of inflation (note the measure of inflation used is a combination of university specific inflation and general inflation). This updating has clearly been effective, since the recent review concluded that the value of base funding remained adequate for its purpose. It should be noted that it is the average value of the base funding that is calculated and uplifted. Its value varies for different disciplines. The method of calculation of base funding for students in different disciplines is set out below.

Until 2012 the Government set a limit of the number of students that each university could recruit in each subject. However, since 2012 student numbers in Australia have been unrestricted. Whatever the level of base funding that is calculated, that is what the University will receive for each student recruited. Part of the income will come from the student tuition fee but the rest is guaranteed by the Government without limit.

Universities have responded to this change in policy by increasing their recruitment, so much so that student numbers increased substantially in the two years since the change, and the Government has been obliged to conclude that it cannot afford such an open-ended commitment. It has therefore decided to limit the public contribution to base funding, and to allow student fees to rise to compensate.

In future (from 2016) the Government proposes that there should be no limit to the fees that universities may charge, but that the Government's contribution will be much lower. So in future there will be no fixed level of base funding per student, but rather a fixed and lower amount of government grant, which universities may supplement with whatever fee they choose to charge. That at present is a proposal – it may well not pass through the upper house of Parliament which is not controlled by the governing party. For the purpose of this study, and because this is where the technical lessons are to be learned for Ireland, the arrangements in operation prior to the proposed changes are described in detail below.

So base funding per student is set as an average level of funding per student. However, around this average, base funding levels vary considerably, depending on the subject in question. Reflecting the fact that, for example, laboratory-based subjects cost very much more to provide than classroom-based subjects, medically-related programmes are more expensive than others etc. base funding rates per student are set at different levels depending on the subject of study. These are set as ratios one to the other, or relativities, and the precise base funding rates per student in different subjects are calculated using these ratios as fractions of the average base funding level. Programmes offered by universities vary greatly, by title and coverage, and it has been found necessary to go into some detail in allocating programmes to clusters. As an example, below is shown a single funding cluster, and the detailed programmes that are designated within the cluster.

<b>Funding cluster 3</b> Mathematics, statistics, behavioural science, social studies, computing, built environment, other health	Mathematics and statistics Computing, built environment or other health	Mathematical Sciences
		Computer Science
		Information Systems
		Other Information Technology
		Architecture and Urban Environment
		Building
		Public Health
		Occupational Health and Safety
		Environmental Health
		Health Promotion
		Community Health
		Epidemiology
		Public Health not elsewhere classified
		Rehabilitation Therapies
		Massage Therapy
		Rehabilitation Therapies not elsewhere classified
		Complementary Therapies
		Other Health
	First Aid	
	Health not elsewhere classified	
	Behavioural science or social studies	Human Movement
		Political Science and Policy Studies
		Studies in Human Society
		Sociology
		Anthropology
		Human Geography
		Gender Specific Studies
		Studies in Human Society not elsewhere classified
		Human Welfare Studies and Services
		Social Work
		Children's Services
		Youth Work
Care for the Aged		
Care for the Disabled		
Residential Client Care		
Counselling		
Welfare Studies		
Human Welfare Studies and Services not elsewhere classified		
Behavioural Science <sup>1</sup>		
Librarianship, Information Management and Curatorial Studies		
Sport and Recreation		
Other Society and Culture		



The current ratios and the resulting actual levels of funding for each funding cluster are as follows:

Funding cluster	Part of funding cluster	Maximum student contribution amounts	Australian government contribution (\$)	total resourcing (\$)	Weighting
<b>Funding cluster 1</b> Law, accounting, commerce, economics, administration		9,080	1,793	10,873	1.0
<b>Funding cluster 2</b> Humanities		5,442	4,979	10,421	1.0
<b>Funding cluster 3</b> Mathematics, statistics, behavioural science, social studies, computing, built environment, other health	Mathematics, statistics	4,355	12,179 <sup>a</sup>	16,534	1.6
	Computing, built environment or other health	7,756	8,808	16,564	
	Behavioural science or social studies	5,442		14,250	1.4
<b>Funding cluster 4</b> Education		5,442	9,164	14,606	1.4
<b>Funding cluster 5</b> Clinical psychology, allied health, foreign languages, visual and performing arts	Clinical psychology, foreign languages, or visual and performing arts	5,442	10,832	16,274	1.6
	Allied health	7,756		18,588	1.8
<b>Funding cluster 6</b> Nursing		5,442	12,093	17,535	1.7
<b>Funding cluster 7</b> Engineering, science, surveying	Science	4,355	18,769 <sup>a</sup>	23,124	2.2
	Engineering or surveying	7,756	15,398	23,154	
<b>Funding cluster 8</b> Dentistry, medicine, veterinary science, agriculture	Dentistry, medicine or veterinary science	9,080	19,542	28,622	2.8
	Agriculture	7,756		27,298	2.6

Source: DEEWR administrative data.

How were these relativities established? The calculation of the relativities was originally done more than 20 years ago. Again a special study undertaken at the time which involved a detailed analysis of costs in a representative sample of universities. Even within each funding cluster they necessarily represent an average. There is a widespread feeling that these are now out of date and should be recalculated, but such a recalculation has not been undertaken. Nevertheless, it is interesting to note that as part of the funding reform proposal from 2016 the Government has proposed that the current eight funding clusters should be streamlined into five funding tiers with disciplines allocated to a particular tier based on private benefits for graduates, the standard teaching method and infrastructure required to deliver the course.

The table below shows the proposed new funding tiers and corresponding Australian Government contribution amounts that will apply, if the proposals are agreed by parliament, to universities for bachelor and higher level degrees from 1 January 2016.

<b>Funding tier</b>	<b>Discipline(s) within funding tier</b>	<b>Australian Government contribution</b>
<b>Funding tier 1</b>	Law, Accounting, Administration, Economics, Commerce	\$1,805
<b>Funding tier 2</b>	Humanities, Social Studies, Communications (excluding Audio-Visual)	\$6,021
<b>Funding tier 3</b>	Computing, Behavioural Science, Welfare Studies, Education, Visual And Performing Arts, Built Environment, Other Health	\$9,033
<b>Funding tier 4</b>	Mathematics, Clinical Psychology, Allied Health, Nursing, Engineering, Science, Surveying, Environmental Studies, Foreign Languages	\$12,045
<b>Funding tier 5</b>	Dentistry, Medicine, Veterinary Science, Agriculture	\$18,067

These figures represent only the Government's payment for each student. In addition, universities will receive a fee from each student that will no longer be fixed by the Government. So the concept of a base level of funding per student will no longer apply. The very much lower level of government grant funding for programmes in "funding tier 1" reflects the fact that the Government assumes that universities will charge higher fees for students studying those subjects (as they do at present), in part because of relatively high demand for these subjects which in turn is partly itself as a result of the relatively highly paid professions to which they lead

It is interesting that a 2011 review which did carry out an assessment of funding tiers and funding levels in each tier also recommended that the 8 funding customers should be reduced to 5 as follows.

#### *Indicative new clusters*

indicative relativities

Law, accounting, administration, economics, commerce, humanities	1.0
Other health, education, behavioural science (including social work), social studies	1.2
Built environment, mathematics, statistics, computing, clinical psychology, allied health, foreign languages, visual and performing arts, nursing	1.6
Engineering, science, surveying, environmental science	2.0
Dentistry, medicine, veterinary science, agriculture	3.0

This recommendation was never implemented.

Apart from subject differences, there appear to be no other differences taken into account in the determination of the amount of base-level funding per student. In particular, postgraduate and undergraduate students are funded at the same rate.

So the arrangement for determining the base level funding of Australian universities can be summarised as follows.

*The average funding per student, regardless of their level or other characteristics is established annually, by applying and updating the figure from the previous year, the original figure having been calculated some years ago as a result of a special study. Each subject has a weighting, which in turn was calculated some years ago as a result of a study, and this weighting is applied to this average figure per student. That establishes the number of dollars per student in each subject that the University is entitled to in each subject. Part of that sum the University will obtain from the student paying the fee that is designated for that particular subject; and the balance is paid by the Government as grant. That total – government grant plus student fee – is the total base funding that the University receives. That is intended to provide sufficient funds to the University to provide education in all subjects, to contribute to the University’s overheads and to enable a basic level of research to be conducted as well. The Government proposes to change this arrangement in the future, and in particular to remove the uniform fee in each funding cluster – and so remove the concept of a common base level of funding for each student – but the outcome of that proposal is not yet known.*

#### *Other elements in government funding*

In addition to the core calculation of base funding, the 2003 law (on which the current arrangements are based) permitted enhancements of base funding as follows

- Regional loading, which provides additional funding under the Commonwealth Grant Scheme (CGS) to help providers offset the disparity in costs and revenue of regional campuses in comparison with major city campuses.
- National priorities, giving as examples
  - increasing the number of persons undertaking particular courses of study;
  - increasing the number of particular kinds of persons undertaking courses of study;
  - Increasing the number of persons in particular regions undertaking courses of study.

National priorities currently stated by the Government are:

- increasing the number of persons undertaking Teaching and Nursing courses of study;
- supporting a number of persons undertaking Natural and Physical Sciences, Information Technology, Health, Education and Society and Culture courses of study at the University of Notre Dame Australia.
- A loading for medical students which provides funding for teaching hospital costs for a Commonwealth supported place in a course of study in medicine, completion of which would allow provisional registration as a medical practitioner by an authority of a State, a Territory or the Commonwealth.

- An amount for Performance Funding partly provided following the conclusion of a funding contract between each University and the Government, which covers strategies and goals for achieving the provider's teaching and learning mission; and partly performance targets relating to specific Government goals. Subject to satisfactory performance against these measures the University may receive performance funding from the Government.

The amounts provided through these supplementary elements are not objectively calculated, but are decided by the Government on policy grounds. The base funding of each university is modified according to these factors and the net amount paid to the University as Commonwealth grant, to be supplemented by student tuition fees.

The money received by the universities, although calculated in some detail, is provided as a block grant, and they may use the money as they see fit, including cross subsidising between subjects. This is essential, as, without the ability to cross subsidise, universities would be highly constrained in the way they provided different subjects, and might need to cease provision in some subjects where funding did not meet their costs fully.

As discussed above, these arrangements worked well when the number of students to be recruited was controlled by the Government, which was able to control its financial commitment by controlling the number of students. Demand driven funding has put these arrangements under pressure and as discussed above the Government has found it necessary to propose putting a cap on its grant and allowing an increase in tuition fees to compensate.

#### *Other features to note of the basic Australian base funding system*

Each higher education provider that receives Commonwealth funding has entered into a funding agreement with the Government. This agreement covers a variety of matters, including, for example, the performance grant arrangements that are specific to each university. So in order to implement its funding method the Australian government is required to enter into some detailed discussions with each university.

Under the Government's new proposals all higher education institutions will be required to commit \$1 in every \$5 of additional revenue to a new Commonwealth Scholarship scheme to support student access, participation and success. This is a result of universities and other higher education institutions being able to set their own fees and applies to all higher education institutions with 500 or more enrolled domestic Commonwealth supported students. Higher education Institutions will be required to use this funding to provide access and participation opportunities for disadvantaged students through the Commonwealth Scholarships scheme, such as scholarships and bursaries, outreach activities, tutorial support, mentoring, fee exemption and assistance with costs of living.

#### *Funding for research*

As with the other countries under review, universities in Australia receive money for research from two sources – first, they receive funds from the Education Department – and it has been calculated that between 5 per cent and 10 per cent of the base funding they receive is available to support research activity. However, the majority of funds universities receive for research is provided by the Australian Research Council (ARC), generally in response to project grant proposals.

The ARC is a statutory agency within the Australian Government. Its mission is to deliver policy and programmes that advance Australian research and innovation globally and benefit the community.

In seeking to achieve its mission, the ARC provides advice to the Government on research matters, manages the National Competitive Grants Programme (NCGP), and administers Excellence in Research for Australia (ERA).

The NCGP's is the mechanism by which universities receive most of their research funding, and comprises a significant component of Australia's investment in research and development. Through this, the ARC seeks to support the highest-quality fundamental and applied research and research training through national competition across all disciplines, with the exception of clinical medicine and dentistry.

ERA is of interest, and is a process through which research quality is assessed within Australia's higher education institutions (much like the United Kingdom's Research Assessment Exercise in the past and now the REF) and gives government, industry, business and the wider community assurance of the excellence of research conducted. It also provides a national stocktake, by research discipline areas, of research strength against international benchmarks

The ERA process produces ratings for each subject in each university, which are determined and moderated by Committees of distinguished researchers, drawn from Australia and overseas. The unit of evaluation is broadly defined as the Field of Research (FoR) within an institution based on the Australia and New Zealand Standard Classification (ANZSRC).

The indicators used in ERA include a range of metrics such as citation profiles which are common to disciplines in the natural sciences, and peer review of a sample of research outputs which is more broadly common in the humanities and social sciences. ERA is a comprehensive collection. The data submitted by universities covers all eligible researchers and their research outputs. The precise set of indicators used has been developed in close consultation with the research community. This approach ensures that the indicators used are both appropriate and necessary, which minimises the resourcing burden of ERA for Government and universities and ensures that ERA results are both robust and broadly accepted.

The first full round of ERA occurred in 2010 and the results were published in early 2011. This was the first time a nationwide stocktake of discipline strengths and areas for development had ever been conducted in Australia. The second round of ERA was completed in 2012. The next ERA round is scheduled for 2015.

The purpose of ERA and the data it produces is to provide a tool to guide strategic planning and investment, including aligning research strengths with industry, regional and national priorities to maximise the benefits of public investment in research.

ERA outcomes and targets also inform the negotiation of Mission-Based Compacts between the Australian Government and universities.

In particular, ERA outcomes directly inform university funding under the Sustainable Research Excellence in Universities (SRE) scheme, allocated by the Department of Education, which provides block grants on a calendar year basis to eligible higher education providers to ensure that these institutions are better placed to meet the indirect cost of research activities that are not entirely met by the various competitive grant programmes.

The objectives of the SRE scheme are to:

- Address an identified shortfall in the funding available to meet the indirect costs associated with Australian competitive grant research; and
- Support HEPs to build and maintain research excellence through the implementation of best practice financial management, performance and reporting frameworks such.

SRE funding is allocated competitively partly on the basis of ERA outcomes and partly on the basis of the amount of grant funding received by each institution from the ARC.