Study of Tuition Fee Policies in the HE Sector

Report to the Hong Kong University Grants Committee

undertaken by

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Contents

SUMMARY

Introduction

1. This report reviews a variety of approaches adopted by different jurisdictions to the financing of undergraduate education[1] and in particular in most cases approaches to cost sharing between government and students. Each approach has costs, benefits and consequences – for students themselves, for governments and for society more widely. Like the approaches to funding, these costs and benefits differ, but many have common features as well from which lessons may be derived.

2. Although the project brief refers specifically to the question of tuition fee policies, to be properly interpreted and their implications understood tuition fee policies and practices need to be seen in the context of financing systems more generally. So in this report we have briefly described the overall system of financing of higher education in the jurisdictions concerned, and because in some of the jurisdictions different considerations apply to different classes of institution we have also in some cases described the taxonomy and landscape of the overall higher education system. The details of the coverage of the case studies therefore differ somewhat but all conclude with a summary of the issues raised in the project brief.

3. The jurisdictions selected for review represent a range of experiences all of which in their different ways provide lessons which will be of interest to Hong Kong as it considers the reform of its financing arrangements. In brief the countries reviewed are the following:

    - Singapore – which has invested heavily in its higher education system as an explicit instrument of economic development, where the state makes a significant contribution to the education of both citizens and international students, but where students nevertheless pay very significantly, supported by government provided mortgage-style loans.
    - England, where the Government has recently moved to an arrangement whereby direct government funding of education has been largely withdrawn, where the fee that students pay has been increased to £9,000 per year (the equivalent of HK$100,000[2]), and where students receive a loan to cover the fee whose repayment is income contingent, and which is heavily subsidised by the Government.
    - Australia where universities are funded by a combination of government grant and student fees, for the payment of which students receive a loan whose repayment is income contingent, but which is less subsidised than the English arrangement; but because the fee and therefore the loan is significantly smaller students repay much more rapidly.
    - The United States where student fees have been increasing relative to state funding for several decades and where students can generally obtain loans at below market rates to finance both their tuition fees (and living expenses). The loans historically have been repaid on an amortized mortgage - basis (that is to say the level and rate of repayments is not related

[1] This report is confined to the question of the financing of undergraduate education, although postgraduate education is discussed in a number of places where that has a bearing.

[2] In this report all currencies are local to the system under discussion, converted into Hong Kong dollars where significant. Where a conversion has taken place this is made explicit, and is not intended to be precise – conversions are intended to provide approximate values.

to the earnings of students), but in recent decades income-contingent repayment terms have been made available as an option.

- Germany where until recently higher education was fully funded by local Governments, where fees were introduced for a short time but were abolished again, and throughout the country higher education – for both domestic and international students - is once again funded entirely from the public purse.
- Ireland which like Singapore decided some years ago to invest in its HE system as a matter of economic policy. Traditional fees for full-time undergraduates were abolished in 1995, but now all students pay a registration fee which now amounts to €3,000 (HK$26,000) per year and which the Government pays in part or wholly on behalf of 60 per cent of students, but for the payment of which other students receive no loan or other support. The present arrangements are recognised to be unsustainable and a review is in progress to reform the system.
- Chile where the direct government grant to institutions is much less than in the other jurisdictions studied and is limited to a small number of universities; where the great majority of institutions are funded entirely by student fees; and where privately-financed government-guaranteed loans are available on a means-tested basis, some (only available to students at a minority of traditional universities) on favourable terms which are subsidised by the Government. And the new Government's ambition in Chile is to reduce if not abolish fees and return after 40 years to a system primarily if not wholly funded by the Government.
- Norway where the system is entirely well funded by the Government and students – including international students – pay no fees.

State funding

4. Until recently most higher education systems relied substantially if not exclusively on state funding provided from general taxation. While state funding continues to be an important element of the funds on which most higher education systems depend, the picture has become more mixed as pressure on public funding has grown, both because of economic problems but more particularly as demand for higher education has grown and governments wish to provide opportunities for as many young people (and not so young people) as possible. So tuition fees have increasingly– but not universally – been introduced to supplement state funding.

5. Another recent innovation has been that state funding is sometimes provided not by means of direct government grant to universities but through a subsidy of one form or another of tuition fees – either the Government paying tuition fees on behalf of students as in Ireland or the Government subsidising the loans that it provides to students in order to pay tuition fees. Although not direct funding, the effect is nevertheless that government continues to contribute to the cost of higher education.

6. Public funding recognises the public benefit or public good arising from the provision of higher education. Moreover, as governments have increasingly recognised the importance of higher education to the fulfilment of their ambitions for the development of their economies and societies, public funding allows governments to maintain an interest in the overall development of the system. On the other hand, it is argued by many that systems that rely entirely or substantially on public investment undervalue the private benefit that arises from higher education and the fact that to some extent it is also an individual good and yields significant individual benefits. A further weakness in purely publicly funded systems is

that, because of changing government priorities and pressure on public finances, funding can be variable, uncertain and unable fully to meet growing demand.

7. Some have sought to identify an optimal balance between public and private funding, in some cases arguing that because there is research evidence that suggests that the benefits split roughly equally between public and private so the cost should be shared equally. Such a view ignores the possibility of market failure, and there is evidence that some individuals who are risk averse may not be prepared to make the required investment. Moreover whereas the state can be confident that it will derive its share of the benefits because it is a single entity – the average public benefit is in fact the benefit that the state will derive – the millions of individuals who participate in higher education cannot in any individual case be certain that they will derive the benefits that are available on average and so may not be willing to participate. The state may need to invest more than its "share" in order to derive its "share" of the benefits.

Tuition fees

8. The second main source of funding for higher education, along with subvention from the state, is fees paid by students. While there has been a strong move around the world to introduce fees and to increase the amount paid by students in fees, the movement has not been uni-directional. This report, for example, gives an account of developments in Germany where fees were introduced for a short time but abolished soon after and in Chile where in the past the system has relied very heavily on fees but where the Government now plans to abolish fees and make universities once again after 40 years fully dependent on government support (an aspiration that appears to have stalled somewhat). On the other hand, another of the jurisdictions considered here – Norway - has never had tuition fees.

9. Quite apart from the pragmatic fact that as participation in higher education has become more prolific fees are a way of reducing pressure on government funding, the logic of student fees is also to ensure that those who gain significant private benefits contribute to part of the cost. In most of the jurisdictions that have been examined in this report fees are charged alongside government direct funding of institutions. However, that is not universally the case, and in Chile and England higher education institutions (HEIs) for the most part now rely very largely on very high student fees for the provision of education. That is so in Singapore as well, but as will be seen below the situation in Singapore is a little complicated and HEIs effectively do receive core (or base) funding from the Government, albeit calculated and described as “Tuition Grant” support for students.

Loans

10. Fees have generally been accompanied by loans, made to students to enable them to pay the fees in question and often some living expenses as well. That is the case in most advanced systems – and was the case in all the systems studied for this report where fees are charged except Ireland (although in Chile loans are available only on a means-tested basis). The provision of loans means that for students who borrow to pay for tuition fees the price of education is free or reduced at the point of use, with payment of fees deferred until after the student borrower finishes their education. In the case of Australia and England, governments finance the fees at point of use so that the immediate price to the student is effectively zero, with repayment occurring on an income-contingent basis through the tax system.

11. In general in the countries studied in this report, interest is charged, though typically not at a level of the cost of capital. This results in some level of subsidy in all countries studied here, and means that government receives less than repayment in full for the cost of the loans it provides, taking into account

deaths, debt forgiveness after a certain number of years and the fact that in some cases repayment is income contingent and so depends on the salaries that graduates earn.

12. Loan repayments may be mortgage style, where payments have to be made regularly regardless of the means of the student, of whether they are earning, of the level of their earnings etc. But increasingly repayment terms are income contingent where the amount of repayment borrowers are required to make each month depends on the salaries they earn and therefore their ability to pay. Clearly the implications of the two approaches are very different: mortgage style loans give lenders a very much greater degree of certainty about the level of repayment that they will receive (and if there is a subsidy the amount of that subsidy). But they are potentially much more onerous for the student. Income contingent loans are much more uncertain for the provider of the loan, but far easier for the students. Of the jurisdictions studied that provide loans for students, in England and Australia income contingent loans are available (as is the case in Chile and the USA for some students). Singapore provides mortgage style loans for all borrowers, as do the USA and Chile for the majority.

13. Some of the considerations with regard to loans of both types include

    - While tuition fee arrangements supported by state backed loans provide an immediate income stream for higher education institutions, the cost of providing loans arises immediately for the Government and such schemes will only generally become self-financing later (if at all - subsidies are typically embedded in the repayment terms). However, if the government can borrow cheaply in order to provide those loans and those costs can be passed on to the borrower then this may not be an issue, though how those loans appear on the public accounts balance sheet may. This issue may not arise if the loans are made by banks with government guarantee, as is the case in Chile and Singapore, but then the costs may be higher as a result of the subsidies needed to ensure private sector involvement. This was the case in the USA before the recent shift to having the federal government provide the capital for all new loans.
    - The extent of any government subsidy is invisible to the student, and the arrangement is therefore less transparent and more politically contentious than using the same government funds directly to fund universities. And from the student's point of view they may not know when they take the loan whether they are going to benefit from any government subsidy (because government subsidy generally covers things like default or loan forgiveness after a period of time). That is certainly the case with income contingent loans, and may be the case with mortgage style loans, depending on how the loans are arranged.

14. The particular disadvantage of mortgage style loans is that liability to repay does not vary according to ability to repay and this can be particularly pertinent for graduates in low paid jobs, suffering periods of unemployment or taking career breaks.

15. The great attraction of income contingent loans is that they relate the amount a graduate has to repay each month to their earnings and therefore to their ability to pay – they are more sensitive to the borrower’s financial circumstances than mortgage-style loans. On the other hand, from the Government’s point of view, as already mentioned above and detailed further below, an income contingent loan arrangement means to some extent that the Government will be entering into commitments without knowing their true long-term cost.

16. In the paragraphs that follow in this summary chapter each of the broad research topics specified in the project brief is addressed, generally with reference to findings in relation to the eight case study jurisdictions. This summary chapter is then followed by detailed reports on each of the case studies, each of which again concludes with a summary of findings in relation to the research questions.

General approach

17. In four of the countries considered where fees are charged – and in both those where fees are not charged - a base/core funding approach is adopted whereby the Government guarantees universities a certain level of funding per student (varying between different subjects), with this guaranteed funding made up of a combination of government grant and student fees – if one reduces then the other is increased. All differ in their detail and in the proportions represented by fees and grant respectively, but that is the fundamental approach. In England there is no guaranteed level of funding, but the £9,000 fee limit, which is roughly the fee charged by most institutions, effectively acts as such a base funding total. In the case of England only in the highest cost subjects does the government core grant make any contribution - base funding is entirely provided by student fees - whereas in Norway and Germany the entire base funding is provided by the Government.

18. In the USA in most states public institutions receive an amount of base funding that is not tied directly on a per capita basis to the number of students attending, and tuition fees are added to the core funding provided by the states. Among the countries studied in this report, only in Chile is there no base funding and a total dependence on fees for funding institutions.

Cost recovery and subvention from the public purse

19. For the purpose of this report, cost recovery is taken as the proportion of the cost of undergraduate education recovered from individuals - the converse of the proportion of the total cost of education met from the public purse. In those countries where funding is entirely provided through taxation – Germany and Norway – cost recovery is zero or close to zero.

20. However, in none of the other jurisdictions is the cost to the public purse properly calculated. In those countries where subsidised loans are provided - and particularly where loan repayments are income contingent (England and Australia and to some extent the USA and Chile) part of the cost to the public purse comes from the subsidy that the Government provides for loans, and this subsidy continues for as long as the loans are outstanding. As is clear from the experience of England, disagreement in Australia about the extent to which FEE-HELP is really self-financing and Chile where they have no idea at all about the cost of the loan arrangements – the true cost of income contingent loans is impossible to assess at the time the policy is implemented and the loans provided. The amount that is repaid and the speed at which repayments are made depend on the earnings of graduates throughout their working lives. That is something that cannot be known in advance, and so nor can the cost recovery rate.

21. In the USA a calculation of 'cost recovery' which is annually published by the organization that represents state higher education executive officers (SHEEO) , includes only state and local level expenditure for the support of public institutions and tuition revenues net of state and institutional student aid that offsets tuition, and does not take into account the cost to the public purse of the contribution made by the federal government in the form of student non-repayable grants and loan subsidies.

22. In Singapore the amount of government subsidy of the base funding is known in advance, but whether or not there is subsidy of the tuition loans is unknown, and enquiries of the Singapore government elicited no response on this point, and it can be assumed that the calculation is not known in Singapore either.

23. So cost recovery can be an elusive concept. Generally the lower the fees that are charged and the more predictable the repayment terms the better can cost recovery be calculated. It is instructive that in England under a £3,000 (HK$33,000) fee regime, where government continued to pay a substantial direct grant to universities, cost recovery was estimated to have been as high as in the initial £9,000 fee regime where the Government paid no direct grant to universities but provided highly subsidised fee loans for students to enable them to pay this fee.

Fees and fee levels where fees are, or have been, charged

24. Even the notion of fee levels is elusive, and in most cases the notional "fee" is not what students necessarily pay. In Singapore, for example, a range of "unsubsidised" fees are set ranging from SG$135,000 (HK$750,000) to SG$26,000 (HK$150,000), but the majority of students (both citizens and non-citizens) benefit from a Tuition Grant of varying amounts. So, for example, the fee paid by a student in law can range from SG$37,200 (HK$200,000) for students paying the full unsubsidised fee (in most cases these will be students who have already pursued a first degree programme) to SG$12,400 (HK$70,000) for a Singapore citizen benefitting from the Tuition Grant. In Ireland notional fees are set at a relatively high level, but all students are responsible for only €3,000 of the fee with the Government paying the rest on their behalf (that is quite apart from government core grant and support available to disadvantaged students to help them meet their share of the €3,000).

25. Where fees are charged, fee levels are in almost all cases set by an arm of the Government (or in a few cases in the USA by the legislature). In England, the Government sets a maximum fee up to which universities are free to charge whatever fee they wish - but that effectively acts as the determinant of fee levels. And in Australia it is the Government's stated policy intention to remove any constraint on the fees that universities may charge, but that proposal is controversial and has not passed into law (and in fact the proposal is currently on hold). Only in Chile does the Government play no part in the setting of the fees; but by setting a maximum loan that it will provide to students, differentially programme by programme, it effectively has a major influence on the fees charged for the majority of programmes.

Differential fees

26. Whether fees are uniform or differentiated varies considerably. In England fees are by and large uniform within a class of institution (that is to say that different fees are not charged for different subjects); but by setting a different maximum loan that it will provide to students in private institutions the Government effectively ensures that many private institutions charge lower fees than public. In the USA in a majority of states tuition fees vary according to subject studied and level of study. And in Australia there are three fee bands, the highest reflecting in part the demand for those programmes (which in turn is influenced by the salary levels of the professions to which those programmes lead) and then lowest band reflecting the relatively low cost of the subject concerned. In Singapore there is wide variation in the fees that students pay (and also in the amount the Government pays) for different programs; and similarly in Chile, with 10,000 tuition reference points (which determine the amount of loan that the Government will provide students pursuing a particular program) there is wide variation in fees, even in public institutions.

Higher fees for out of area students

27. In all the jurisdictions where fees are charged, higher – in most cases much higher – fees are demanded of out of area students, generally charged at the discretion of institutions themselves. However, in those jurisdictions where fees are not charged of domestic students – Germany and Norway – international students also benefit from free tuition.

28. In England the introduction of what are effectively full cost or near full-cost fees for domestic students (less than full cost in the case of laboratory based and clinical and more than full cost in the case of most humanities and social science subjects) means that there is now a greatly reduced differential between the fees charged of international students and domestic students. It will be instructive to see whether this reduces the appetite of English universities to recruit international students – so far it has not.

Whether tuition fees are set nationally or at the discretion of individual institutions

29. Of the countries where fees are charged only in Chile does the Government or an arm of the Government not set or limit the fee (and, as stated already, by limiting the loan available to students programme by programme it exerts a strong if not decisive influence over the level of fees that universities charge). Of the others, in Australia, Singapore, the USA (in most states) and Ireland the Government, not the institution, explicitly sets or limits the fee. And in England although it is institutions themselves that set fees that is within a maximum set by the Government, and that maximum or thereabouts is the amount that the great majority charge.

30. So in almost all jurisdictions the Government either controls or decisively influences the level of fees charged, even in private institutions[3]. The government also in all cases determines from time to time by how much the fee (or the maximum fee in the case of England and the tuition reference points – the amount of loan it will provide for a particular programme - in the case of Chile) should be increased in publicly governed institutions.

How tuition fees paid by students are distributed between institutions and the Government

31. Where tuition fees are payable there are two broad approaches. In Singapore, Ireland, the USA and in Chile tuition fees are paid direct to the institution by the student. The student may obtain a loan from the Government but that is between the student and the Government (or the bank acting on behalf of the Government). In the case of some universities and in respect of some subjects the Government also pays a grant direct to the institution but that is a separate matter. In England and Australia the fee is paid on behalf of the student by the Government or the Government's agent and is then treated as a loan to the student.

32. In all cases where a base-funding regime applies (all apart from the USA and Chile) the tuition fee paid by the student is part of the core grant calculation of the Government and so it makes little difference whether the fee is paid by the student direct to the institution or to the Government. Effectively the Institution receives the fee in its entirety and, other than in England, the Government grant makes up the difference between that and the core/base funding level. If fees increase then government grant reduces. Or, as in Ireland, if the total that the Government has available to provide as direct grant to universities is fixed and student numbers increase, then per capita base funding reduces and the proportion of per capita base funding represented by fees increases.

Fairness and affordability: what evidence there is about the impact on participation of differing funding regimes and in particular participation by students from disadvantaged backgrounds

33. The evidence about this is, perhaps, slightly surprising.

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[3] Not in the case of the most prestigious universities in the USA and in Chile, but these provide for a tiny minority of the student body in that country, and appear not to be subject to normal market forces.

34. Chile, which has one of the highest fee regimes in the world also has the highest participation in South America. Participation is also at a globally high level in the USA. There is evidence from England that very large increases in fees (the trebling in 2006 and the trebling yet again in 2012) have had no impact on full-time young participation either generally or by disadvantaged groups, and the same appears to be the case in Australia. Similarly Ireland has one of the highest rates of participation in Europe but also has a student contribution arrangement that provides no loans to students – but because the Government pays the fee on behalf of poor students no inference can be drawn from this.

35. Care needs to be taken in concluding from this evidence that higher education demand is entirely price elastic. It is notable that in the case of the USA, England and Australia loans are available to virtually all students (income contingent loans in England and Australia and to a growing extent in the USA, which to potential students may appear to have easy repayment arrangements) and so in these countries at least education is effectively free (or the cost greatly reduced) at the point of use. These countries also have well developed economies, and in the case of Chile where government-backed loans are only available on a means-tested basis and only a minority of students have access to them, the best developed economy in South America), and so whatever the cost, the penalty for not going to higher education and being able to compete for a job that requires a higher education qualification may be higher than elsewhere.

36. A second caveat concerns the definition of participation. If what is of interest is not simply getting students into higher education, but ensuring that they succeed, then the experience of Chile, where completion rates are thought to be low, may suggest that it is important to consider the effect of the financing regime on the entire student life cycle, including a student's success while in higher education – and the same applies to the USA, where fees are relatively high, as is participation, but where non-completion rates are among the highest in the OECD area. And the evidence from Ireland, where the cost to the student has not increased greatly but public funding – and therefore the resources of institutions – has reduced significantly in recent years, and non-completion rates have risen, suggests that the absence of adequate funding to support students while studying may have a greater impact on student success than any negative impact on participation of the requirement to pay a fee.

37. And finally, in England while full-time young participation appears to have been unaffected by the large rise in tuition fees in 2012, demand for part-time education has collapsed. Unintended consequences may follow from decisions which appear to be perfectly reasonable when considered in isolation. The decision to triple fees was taken with full-time undergraduate students in mind, and tuition fee loans were limited to those in the first instance. As a consequence of the rise in full-time fees, part-time fees increased in parallel (part-time fees are generally set pro rata to full-time), but because part-time students had no loans available to them the cost for many became prohibitive. But even after loans were introduced for some part-time students subsequently that did little to increase demand. It does appear that there are different markets that need different considerations, and that have different motivations and different constraints: and the impact of a decision aimed at one group on another needs to be considered in advance.

38. Another unforeseen impact of a decision about the architecture of a higher education financing system concerns the impact on student numbers and the impact of that in turn on government finances. The Australian government decision in 2012 to remove all controls on student numbers led universities to respond by rapidly increasing their enrolment. Because the Australian core funding arrangements guarantee institutions a certain level of funding for each student, albeit that a significant part of that the funding comes from student fees, that means that for each additional student recruited the Government

is liable for significant amounts of funding and government liability following the 2012 abolition of student number controls increased way beyond its budget.

39. The Australian experience demonstrates clearly the interaction between mechanisms for controlling student numbers on the one hand and mechanisms for financing higher education on the other. The higher the commitment of the Government to a per capita level of funding then the greater the need to control numbers, if public expenditure is to be controlled. The Australian government responded by proposing to reduce its per capita commitment, to increase student fees and to maintain the student number liberalisation (a proposal that has been put on hold for the present by the new administration, but as the government party has not changed may yet be reintroduced). The problem for universities in Australia is that while the budget cut in government funding is still planned, and student numbers are still liberalised, the proposal to allow fees to increase has stalled – so universities are faced with funding cuts and student number increases. The Australian experience shows the close relationship between student numbers, fee levels and levels of government grant.

40. As a further manifestation of this relationship, the Government in England removed controls on student numbers in 2014 and is now proposing to reduce the subsidy that it provides for loans having discovered both that its per capita commitment (because of the level of subsidy of student loans) and its total commitment (because of the increase in student numbers) was much higher than had been budgeted. The alternative would be to put the cap back on student numbers – thereby possibly reducing opportunity for young people to participate in higher education.

Support (e.g. loans) available for the payment of tuition fees

41. In Ireland and Singapore the Government payment to higher education institutions is called "Free Fee Grant" and “Tuition Support Grant” respectively, and although notionally taking the form of government support for student fees is in reality part of the base funding support that the Government provides to institutions. It is not in effect different from the direct grant aid in other countries (though in Singapore there are some categories of student for whom tuition support grant is not available). In Ireland the Government also pays part or all of the fee on behalf students from disadvantaged backgrounds, but other than this in none of the jurisdictions studied, other than the USA (see below) does the Government provide grants to students for the repayment of fees.

42. However, other than in Ireland, in all jurisdictions where fees are charged fee loans are also available, on terms that vary greatly between jurisdictions. In England and Australia loans are available to all students, and are subsidised (very heavily subsidised in the case of England). In Chile loans are available only on a means-tested basis, but those that are provided carry various amounts of Government subsidy. The extent of the subsidy is a critical factor in determining the cost of the entire financing arrangement. Again, in England the largest single element now of government funding of education (not research) is in the subsidy it provides for tuition fee loans. In Australia where fees are much lower and consequently student debt is lower, the Government feels able to provide a much lower subsidy for fee loans and the fees are repaid much more rapidly. In Singapore loans are available to all students (domestic and international) on similar terms, but covering only up to 90 per cent of the fees payable by a Singapore citizen. However, Singapore citizens may obtain further loans to cover the remaining 10 per cent, on a means tested basis.

43. In Ireland, in addition to the Free Fee Grant paid by the Government, all students are liable to a $6,152fee, for the payment of which no loan is available – it has to be paid upfront, though the Government pays some or all of the fee on behalf of students whose economic circumstances would mean that payment of the full fee would cause hardship. One advantage of the upfront fee arrangement in operation in Ireland

and also in England between 1998 and 2006 - both considered to be unsatisfactory because of the relatively small number of students who actually paid the full fee, the rest having all or part of the fee paid for them by the government - is that it enabled the Government to receive from students from better off backgrounds an immediate payment without the deadweight cost of providing loans to those who do not need it. On the other hand, given that the philosophy of student fees is that the beneficiaries of higher education should contribute to its cost, the means of the parents of those beneficiaries is not relevant. Loans and deferred payment, particularly income contingent payment, ensure that those who actually benefit pay, regardless of the circumstances of their families.

44. The USA is unique among the jurisdictions studied in providing government grants to students for the payment of tuition fees and a range of living expenses on a means-tested basis, as well as providing subsidised loans for this purpose too.

Private higher education – and in particular if student loans are available to private higher education students?

45. This question only effectively arises in England, Chile and the USA – in Australia loans are only available to students as part of the core funding regime which itself is only open to government funded institutions.

46. England, Chile and the USA are the only other jurisdictions that charge fees where there is a significant private sector, and in all those jurisdictions loans are available to students attending private higher education institutions (although in England the loan amounts that are available are lower than for students attending public institutions, and in Chile on less favourable terms than to students at public institutions). It may be of interest to know also that in Norway, where fees are not payable in public institutions, government grants are paid to private institutions where fees are payable. And students at private institutions in the USA and Germany as well as Norway – and international students in Norway – can access loans for living expenses on the same terms as students attending public institutions.

Source of loan financing

47. While not one of the key research questions set out in the brief, our review of practice in the case study countries where loans are provided reveals sufficient variation in practice with regard to the source of the capital for loans, and arrangements for their repayment, to warrant a separate mention.

48. In Chile loans are provided by private banks which also administer and receive repayments and pursue debts. The Government negotiates the arrangements, including its guarantees and subsidies, with the banks concerned (and in addition in both Chile and in Singapore separate loans are negotiated between universities and banks and guarantees provided by the University).

49. In England the Government established a new company – the Student Loans Company – to provide loans and receive repayments, which are made through the income tax system. The financing of the Student Loans Company comes in part from the Government and in part from student fee repayments.

50. In Australia the loans are made by the Government (which pays the fee on behalf of the student direct to universities – as the Student Loans Company does in England) and then students make repayments through the tax system directly back to the Government.

51. The USA began with a bank-based programme in 1965 but since 2009 the federal student loan programmes have been totally federally-financed: federal funds are used to make the loans and the government hires a range of organizations to service the loans, including the receipt of income-contingent repayments. This is also the arrangement in Singapore - . The banks are paid an agency fee for administering the scheme but the loan funds are provided by the Government.

52. Arrangements that rely on repayments to be deducted from earnings – as England and Australia - appear to work well. In a country with a well-developed income tax system where repayments can be deducted by employers such an arrangement has much to commend it, but it will not work where there is a large informal economy, where the tax system is not well developed and where potentially significant numbers of graduates might avoid repayment for other reasons (for example where significant numbers might go abroad to work). In such circumstances, but also because they have well-developed systems already in place for making loans and receiving repayments, the use of private banks as agent would appear to have advantages.

53. The following table provides a necessarily simplified summary of the main relevant features of the arrangements in the jurisdictions reviewed.

	Countries							
	Australia	Chile	England	Germany	Ireland	Norway	Singapore	US
Cost Recovery	>44%	Not known	Estimates vary between 70%-55%	0 now <5% when fees charged	Low – between 10%-20%	0	Not disclosed – estimated maxima range from about 10% in music for Singapore citizens to 66% in law for international students	47%.Varies from 15% to 85% not taking into account federal grants and loan subsidies. Approx 25%-30% if these included
Fees and Fee Levels	3 fee levels – AU$6,152, AU$8,768 AU$10,266 (HK$34,000 HK$48,750 HK$57,000)	US$2,500 (HK$21,600) per year to about US$7,500 (HK$64,700) - average around US$5,500 (HK$43,000)	Generally between £8,000-£9,000 pa (HK$88,000-HK$99,000)	Now 0 When fees were charged almost all institutions charged €1,000 (HK$8,600) per year	€3,000 (HK$26,000) per year	0	For Singapore citizens varies from SD$2,600 -SD$25,400 (HK$14,400-HK$140,700 subject dependent	US$5,000 p.a – US$15,000 p.a (HK$39,000)-HK$117,000) in public institutions
Differential Fees?	Yes, by subject, not institution	Yes, at discretion of institution	Max fee set by Gmt does not vary for pubic institutions or between subjects	N/A When fees were charged fees within a jurisdiction did not vary	No	N/A	Yes, by subject and institution	Yes by level of study and field of study
Higher Fees for Non-Resident	Yes	At institution's discretion	Yes	No	Yes	No	Yes	Yes
Who sets tuition fees?	Government	Institutions	Institutions Capped by Govt	State government, when fees were charged	Government	N/A	Government	Government, but some instances of institutions within Gmt set limits, or by legislatures
Government support arrangements	Gmt paid fees repaid thru tax system on income contingent basis	Main loans provided by banks with Gmt guarantee repaid on mortgage (some on income contingent) basis	Gmt paid fees repaid thru tax system on income contingent basis	When Fees were charged, state government supported/ subsidised loans provided through banks	Government pays some fees on behalf of 60% of students. No loans or other support available for others	No fees charged so no fee support arrangements.	Government backed loans available through private banks, repaid on mortgage basis	Extensive federal and state grants and loans available, increasingly repayable on income-contingent basis – otherwise on mortgage basis.
Source of loan capital	Government	Private Banks	Student Loan Company, with funds provided by Government, & loan repayments	When fees were charged, capital provided by national & state development banks & private banks	N/A	N/A	Private banks /Social Security Fund	Government
Gmt support available to students in private HEIs?	No	Yes	Yes, but at lower level	Yes, when fees were charged	No	Yes (Institutional grant)	Yes	Yes

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THE CIRCUMSTANCES OF HONG KONG

54. The above section has summarised some of the salient features that arise from consideration of the systems for financing higher education in the eight countries studied, and in particular arrangements for student fees and loans where appropriate.

55. However, while lessons can certainly be learned from experience elsewhere, what is not possible is simply to take that experience – let alone an entire system – and transplant that to a different country with its own political, social and economic circumstances. This section therefore briefly describes arrangements in Hong Kong together with the circumstances that obtain there, and that is followed by a section that discusses the main issues which will need to be discussed by political leaders and policymakers as they decide whether to move forward to the next stage of the present project - to review and consider new arrangements for the financing of higher education including, possibly, arrangements for student fees.

56. The recurrent grant to the University Grants Committee (UGC)-funded institutions is a deficiency subvention calculated by deducting an assumed income from tuition fees and other sources from the estimated gross funding requirement of the UGC-funded institutions. The assumed tuition fee income is based on the indicative tuition fee level determined by the Chief Executive in Council.

57. The indicative tuition fee level is maintained at the current level during the 2016/17 to 2018/19 triennium, i.e. $42,100 per student per year for UGC-funded programmes at degree level. This has formed the basis for calculating the recurrent grants for the UGC-funded institutions in the 2016/17 to 2018/19 triennium. The tuition fee level has remained at the same level for nearly two decades.

58. As background, in January 1991, the former Governor-in-Council (now the Chief Executive-in-Council) decided that the cost recovery target for fees for degree courses should be set at 18%. This target was achieved in 2004/05.

59. The UGC basically follows a triennial recurrent grant allocation cycle. When considering the funding for the 2012/13 to 2014/15 triennium, the Government agreed that the indicative tuition fee level should be maintained and adopted as the basis for calculating the recurrent grant for the UGC sector. When endorsing the budget for the 2015/16 roll-over year, in the spirit of the roll-over arrangement, it was agreed that the indicative tuition fee level for local students would continue to be maintained in 2015/16, and this formed the basis for calculating the recurrent funding.

60. It is noted that the indicative tuition fee level has been maintained at the current level since 1997/98, even though the cost recovery rates have actually been fluctuating between 16.7% (in 1998/99) to 19.6% (in 2004/05 and 2005/06). The cost recovery rate in 2014/15 was 16.9%; and is projected to fall marginally below 16% in 2015/16. If the indicative tuition fee remains at its current level, it is expected that the cost recovery rate will continue to fall in the 2016/17 to 2018/19 triennium taking into account the established pay and price adjustments (see paragraph 65 for details).

Financial assistance

61. Financial assistance is provided by the Working Family and Student Financial Assistance Agency (WFSFAA) to needy students with regard to tuition fee and possibly living expenses. Currently, two schemes are available to full-time students taking up UGC-funded / publicly-funded[4] programmes: the

[4] According to WFSFAA's website, these latter refer to programmes offered by publicly-funded institutions such as The Hong Kong Academy for Performing Arts, Hong Kong Institute of Vocational Education etc.

Tertiary Student Finance Scheme – Publicly-funded Programmes (TSFS) and the Non-Means-Tested Loan Scheme for Full-time Tertiary Students (NLSFT).

62. TSFS is for applicants taking up an exclusively UGC-funded or publicly-funded student place on a recognised course. The Scheme aims to provide means-tested financial assistance to eligible full-time students with financial need. Financial assistance is provided in the form of a grant and / or loan. The grant is to cover tuition fees, academic expenses and compulsory union fees. The loan is for living expenses and is interest-bearing at 1.0% per annum chargeable from the commencement of the repayment period.

63. NLSFT is to complement the TSFS to provide financial assistance in the form of loans to eligible students to settle the tuition fees of recognised full-time study courses.

64. Successful applicants of TSFS are also provided with travel subsidy which is calculated based on established formula with reference to the amount of financial assistance received under the TSFS. In addition, eligible students who have passed the TSFS can also receive a hostel subsidy and additional academic expenses grants under the Community Care Fund (CCF) Assistance Programmes.

65. With reference to paragraph 53, the following table provides a summary of the main relevant features of the arrangements in Hong Kong.

	Hong Kong
Cost Recovery	For the 2016/17 to 2018/19 triennium, the average cost recovery rate is 14.9%. Recovery rates of the tuition fee are calculated with reference to the grants to the UGC sector, assumed income from tuition and other sources (such as investment income) i.e. total funding requirements. Other sources of funding such as rent and rates reimbursement; top-up funding on UGC Home Financing Scheme; research funding from the Research Endowment Fund; and the non-recurrent Matching Grant Scheme are not included. Average cost recovery rate is estimated at 14.0% if these were included. No account is taken in this calculation of the interest subsidy on loans nor of loan defaults.
Fees and Fee Levels	The prevailing indicative tuition fee for UGC-funded programmes at degree level or above is HK$42,100 per student per year for local students, which has remained unchanged since 1997/98. The tuition fee for sub-degree students is generally set at $31,575 per student per year (75% of $42,100).
Differential Fees?	No
Higher Fees for Non-Resident	Yes
Who sets tuition fees?	Government sets indicative fee level
Government support arrangements	Government means (Tertiary Student Finance Scheme) and non-means tested (Non-Means-Tested Loan Scheme for Full-time Tertiary Students) schemes
Source of loans	Government
Gmt support available to students in private HEIs?	Yes e.g. Government Scholarship Fund

ISSUES FOR CONSIDERATION AND NEXT STEPS

67. The previous sections have summarised some of the main lessons to be learned from the experience of the jurisdictions studied, and have described the relevant policy and environmental arrangements currently in place in Hong Kong. This section identifies some of the main policy and policy issues and questions of principle that policymakers will need to take into account in deciding whether to proceed to Phase Two of this project and devise new arrangements for student fees and the funding of higher education in Hong Kong. And alongside each of the issues for consideration are recorded some initial comments about how these might bear on the situation in Hong Kong.

68. It is important to have in mind that decisions about levels of tuition fees and arrangements for the financing of higher education more generally raise significant policy and political issues – they are not simply technical matters to be dealt with mechanistically. Nor, as has already been said, is it possible simply to transplant arrangements in one jurisdiction to another – these questions have to be decided in the context of the economic, social and political circumstances peculiar to each jurisdiction.

69. Specifically, the government needs to consider what it wishes to achieve with any changes to the funding regime. Elsewhere, for example, new arrangements (generally involving higher fees) have been introduced in order to:

    - Place the financing of higher education on a more sustainable basis – with less reliance on the vagaries of public finance
    - Increase the funding of higher education institutions in order to maintain or improve standards and quality
    - Provide more opportunities to participate in higher education without putting excess burden on the taxpayer.

70. And in almost all cases an overriding consideration has been the effect of different funding regimes on equity and fairness and the impact of the arrangements on the ability of students from disadvantaged backgrounds to participate in higher education. These considerations vary according to the different circumstances of the jurisdictions involved; but what is inevitable is the relationship between three issues:

    - The number of places that can be provided and so the opportunity to participate
    - The quality of education that can be provided
    - The finance that is available.

71. The case studies examined here provide examples of jurisdictions where funding is provided entirely by the taxpayer, entirely by student fees and most commonly by a mixture of the two. In all cases difficult political decisions have been involved; but the common lesson is that if opportunity is to be increased and quality is to be maintained then more funding is required, and the issue then is how this funding is to be provided – whether from student fees, from the taxpayer or from elsewhere. On the other hand, if funding is to be held down (by constraining public investment and holding down fees) then either publicly funded places have to be restrained as well or quality will be compromised.

72. There is a fourth dimension that is not generally referred to when this nexus of interrelated issues is discussed – the impact of financing arrangements on equity and the ability of disadvantaged students to participate.

73. The issues that are summarised below are raised in the context of the case studies examined in the context of this review, and in light of the larger context discussed above. But they will need to be addressed by the political and policy leaders of Hong Kong taking account of Hong Kong's specific circumstances and concerns before decisions can be taken about whether to proceed with any policy to reconsider the arrangements for the financing of higher education in Hong Kong.

Base funding

74. Whether called base funding or under another name, most of the jurisdictions studied set a total level of funding, usually differentiated by subject, to which universities are entitled for each student recruited. This base funding usually comprises part direct government grant to institutions and part student fees. Hong Kong's present arrangements match international practices in this regard. Where jurisdictions differ is in the proportion of base funding accounted for respectively by student fees and direct institutional grant. In England in most subjects 100 per cent of base funding is represented by student fees. In Germany and Norway 100 per cent by Government grant. In Hong Kong direct government grant represents the large majority of base funding, supplemented by Government grants and loans.

Differential fees?

75. Most jurisdictions have some level of differentiation of fees, depending on the subjects pursued. However it is not always the case that it is in subjects that are the most expensive to provide that fees are highest. In Australia, for example, the differentiation is at least partly according to popularity of the subjects and the salary levels that graduates in those subjects subsequently enjoy.

76. Related to the question of differentiation of fees by subject, the question has arisen in the past of whether students in subjects that are relatively cheap to provide (humanities, for example) are "overpaying" in the sense that their fees subsidise students pursuing subjects that are more expensive to provide but who are charged the same fee. This is not a question that has arisen prominently in any of the jurisdiction studied (including Hong Kong), where there is the notion of the university as a holistic entity and where cross subsidy is regarded as necessary to maintain the integrity of the university.

77. The alternative is a very different view of a university as a series of individual transactions between "consumers" and a "provider". This is a legitimate question which Hong Kong needs to address – should fee levels be set so as to reflect closely the costs of provision in any subject? If so, then if humanities students are to pay lower fees and science students are not pay very much higher fees then the differential subsidy will need to be greater. Hong Kong would also need to consider whether the aims and benefits of introducing any differential fee system would justify the consequences of administering a more complicated fee system for a relatively small student population vis-à-vis the international counterparts studied, as well as the public reaction (probably adverse) to a higher fee being charged for the more expensive, popular or longer duration programmes (e.g. medical, law and some laboratory-based programmes).

Fee levels

78. Fee levels in the different jurisdictions vary greatly (but these need to be seen alongside the public support that is available and the social and economic circumstances of the country). In the context of the six jurisdictions studied where fees are charged the level of fees in Hong Kong, while perhaps lower than the average, do not stand out as being remarkably out of line. If anything they are a little lower than the average and so an increase could be presented as merely bringing the level of fees more in line with international practice.

79. Fees were set at their present level of HK$42,100 nearly 20 years ago. It might therefore be thought that if that level of fee was acceptable at that time then, given the inflationary factors and the growing prosperity of the city (and discounting structural or cyclical economic downturn or other macro-economic factors outside the control by the Government), increasing fee levels now should not be unduly controversial or difficult. However, against that consideration is the fact that in the meantime the social mix of participants in higher education is much wider and there has been a progressively higher rate of participation[5]; and given that income inequality in Hong Kong is among the highest in the world – certainly in the developed world, where OECD data indicate that income inequality in Hong Kong is greater than in any of the OECD members – increasing fees may be more problematic for a larger number of potential students than was the case when fees were first set some time ago. A fee of HK$42,100 is a significant undertaking for many families. That may provide an argument against increasing fees at all; or it may indicate that novel and imaginative approaches may be required that will protect the economic interests of poorer students while ensuring that those who can afford it increase their contributions.

Who sets fee levels?

80. In all of the jurisdictions studied fee levels are entirely or largely determined by the government – either the government sets fee levels itself or it sets a maximum loan whose level strongly influences the level of fee that institutions can charge. That is the case in Hong Kong also. However, it should be noted that there is pressure, particularly among elite universities overseas, to relax the government's control over fee levels. However, given that the level of higher education fees is everywhere often a highly charged political issue it seems unlikely that governments will easily cede control over fee levels completely.

Loans to cover fees

81. In all the jurisdictions studied, apart from Ireland, all students have access to government provided loans to enable them to pay fees. However, in Chile loans are means tested and so most students do not have access to loans; and in Singapore loans are available only to 90% of the cost of the fees that Singapore citizens are required to pay - though on a means tested basis some students have access to loan finance for the remaining 10%.

82. Hong Kong's present practice is consistent with the majority practice in the other jurisdictions. However, in Hong Kong as elsewhere loans are subsidised (though the subsidy varies considerably from jurisdiction to jurisdiction), and the question that will need to be addressed as policy develops is whether fees are increased the government wishes to continue to bear the cost of subsidies at their present levels.

Loan repayments

83. The jurisdictions studied vary in the nature of the loan repayment arrangements that they require.

84. From the student's perspective the income contingent loan repayment schemes in place in England, Australia, Chile and to some extent the USA are the most generous and manageable, because they relate the rate at which a student is required to repay (but not the total amount they are required to repay) to their earnings levels. On the other hand, because there can be no certainty in any individual

[5] In the 2014/15 academic year, the overall degree-level education participate rate (including both publicly-funded and self-financing FYFD/senior year/top-up degree places) is above 30%. If only publicly-funded provision is counted, the percentage is around 23%. By 2015, over one-third of the relevant age cohort will have access to degree-level education. Including sub-degree places, close to 70% will have access to post-secondary education. As the age cohort reduces, it is expected that participation rates will continue to increase in the coming future.

case or across a whole population about earnings levels in the future, these carry more risk from the point of view of the government (the lender) than the alternative - mortgage style –-loan. Singapore provides mortgage-style loans which require the student to pay regularly the same amount each month regardless of their earnings. That provides greater certainty to the government about the level of payment it will receive each year. Politically, income contingent loans, despite their drawbacks, are attractive because they enable Governments to 'sell' the fee/loan arrangements on the basis that no student will be required to repay more than they can afford.

85. The question for Hong Kong will be first whether it wishes to continue to provide loans to enable students to pay fees; and second whether it wishes to continue with mortgage style loans or change to income contingent loans, with the rather greater uncertainty of repayment rates that will entail. The overriding consideration will probably be the sustainability of the existing system of financing the higher education sector.

Loan subsidies

86. Where loans are provided the true cost of these loans has proved difficult to calculate, and sometimes controversial. The rate of interest charged is sometimes fixed so as to cover defaults, deaths and other causes of non-payment or underpayment, but precision in this respect is impossible.

87. Despite the difficulties in the calculations, governments have a choice as to whether consciously to subsidise loans or not and need to make an estimate of such subsidies, however difficult that is.

88. In general, because the calculation of returns on income contingent loans require estimates of the future earnings – and the pattern of earnings growth – of graduates, estimating the subsidies on income contingent loans is more uncertain than for mortgage type loans where repayment rates are rather more certain and do not rely on estimates of future earnings – so one of the more uncertain of the variables involved in the calculation of subsidy is absent.

89. The loans provided to undergraduates in Hong Kong are mortgage type rather than income contingent. Nevertheless, with a default rate of around 5.65% for the 2014/15 financial year (with around $30 million yet to be recovered by the end of the financial year), there is some subsidy involved which has not previously been calculated. Whatever the future arrangements for higher education finance, some attempts should be made to calculate the subsidy on loans, and a decision explicitly made about the level of subsidy that should be aimed at.

The use of government funding – loan subsidy or direct institution grant?

90. One of the main disadvantages of using government funding to provide loan subsidies has been discussed above – the calculation of the cost is extremely imprecise, and so the cost uncertain. Another disadvantage is that to the world at large, including students, the government contribution to education is not clear – and indeed to the extent that the subsidy largely consists of covering defaults or other non-repayment of loans students will not know when embarking on their higher education whether they will benefit from government subsidy.

91. On the other hand, the great advantage of using government funding to subsidise loans is that such expenditure has a gearing effect. Every one dollar of public expenditure may generate a further multiplier of private expenditure.

Cost recovery

92. As discussed above, cost recovery is a somewhat elusive concept. Over and above the issues of its calculation, there is not even agreement about what it is that is to be calculated.

- The proportion of the cost of education recovered from the fees paid by domestic students;
- The proportion of the loans that is recovered; or
- Just the proportion of institutional cost (not taking account of the cost of loans and student support, represented by student fees) that student fees represent.

93. And over and above those issues is the question of what should be included in the numerator – whether just the fees paid by domestic students (because the government funding is intended to cover those); or other income as well like the income of international students.

94. In Hong Kong the cost recovery rate that has been calculated in the past appears with reference to the grants to the UGC sector, assumed income from tuition and other sources (such as investment income) i.e. total funding requirements, excluding the cost to the government of the loans that it provides. On that basis it has been calculated as 16.9 percent as of 2014/15 academic year. If the cost of loans and grants were taken into account then the cost recovery would be significantly lower. That would place cost recovery in Hong Kong among the lowest of those studied, and an issue for the government will be whether it wishes to increase the cost recovery rate – by increasing fees or by reducing the subsidies involved in providing loans and grants to students to enable them to pay fees (most likely by increasing the interest rate payable on loans).

Distribution of fee income between the state and institutions

95. In all the jurisdictions studied where fees are charged the fees are received directly by the institutions (whether the fees are paid by students themselves or by the government on their behalf). Only in Germany when fees were charged were these received by the Government. To receive fees themselves matters to institutions, as it reduces the scope of government to redistribute the fees paid by students. There is also a concern that if fees are received by the Treasury they will simply be treated as another form of public income like other taxes, and the institutions will see no benefit – the Government will simply allocate grant to institutions without taking account of the income that they have generated.

96. The extent to which this need be an issue in Hong Kong depends on a judgement about the likely attitude of the Government to the fees that are generated, and in particular the extent to which it will have regard to that income in determining the public grant it provides. This issue will certainly colour the attitude of the institutions themselves to any increase in fees that might be proposed – if they were to take the view that they will not gain from fee increases it is unlikely that they will adopt a strong supportive stance[6]. It is notable though that in Germany when fees were introduced fee income was explicitly described as being to improve the learning and teaching environment, and when fees were withdrawn government funding explicitly made up the lost income.

Support of the private sector

97. In all the jurisdictions studied students attending private institutions are eligible for whatever support is provided to students at public institutions – generally fee loans – though not always on the same terms or at the same level.

98. Where support is provided on a means tested basis, as is the case in Hong Kong, one approach to expanding the provision of higher education at reduced cost to the government is by encouraging the expansion of the private sector – including the self-financing sector in Hong Kong – while making a full

[6] Recent discussions with Heads of Universities have indicated that they would favour an arrangement whereby a new funding model could be introduced whereby the universities did retain fee increase as an incentive.

range of support available to students at private institutions. Another, as in England, is to allow access to public support like tuition loans – but at a lower level or on different terms than those in public institutions.

99. In the circumstances of Hong Kong an increase in the private (including self-financing) sector may be thought as an attractive option because it enables opportunities to participate in higher education to be increased without compromising opportunities for students from poor backgrounds - who will continue to be eligible for means tested loans and grants sufficient to enable them to participate. If so that would go some way towards addressing concerns about equity while effectively increasing the private contribution to higher education from among those who can afford to pay.

100. It needs though to be borne in mind that whatever the detailed arrangements, growing the private sector relative to the public has the same effect in economic terms as increasing student fees – it will lead to greater contributions from individuals, and relatively lower contributions from the taxpayer. That in turn would likely lead to a public debate on the Government's undertaking to ensure the affordability and access to higher education, because the fees charged by the private sector are even more burdensome than the public. Also, in the main it is students with better academic achievements who secure places in the publicly-funded programmes rather than the private institutions, and the policymakers would need to look into the attractiveness and demand of growing the private sector, having regard to the shrinking size of student population from now till 2022 when the size of the relevant age cohort hits a trough.

101. The question of private education is often politically fraught, and how this is handled and the extent of its encouragement is something that will need to be addressed in Hong Kong having regard to the political circumstances there.

The impact of higher fees and fee loan debt on participation

102. There is no evidence from any of the jurisdiction studied that the level of fees or the nature of the repayment arrangement has impacted on the willingness of young people to undergo full-time higher education. However, there is some evidence from England that increased fee levels have had a major impact on the willingness of students to study part-time – originally without any loan or other support, but more recently even despite the availability of loans. There are also some indications from Chile and from Ireland that the lack of availability of support for the payment of fees might have an impact on student success.

103. The question of the social impact of higher fees and the availability of support to pay those fees is highly controversial and is one of the main arguments against increasing fees, despite the lack of evidence about such impact from other countries.

104. Any discussion of a policy to increase fees in Hong Kong, and the arrangements for supporting students to pay those fees, will need to be based on rigorous research and sound evidence about Hong Kong's specific social and economic circumstances. The politics of fees – their introduction and decisions about fee increases – is extremely difficult. In 2004 the Blair government with a majority of 150 in Parliament nearly lost the vote over its proposal to introduce fees at a level of £3,000; in Ireland it seems highly unlikely that any government will vote to increase fees and introduce loans (despite the fact that the present arrangements probably cause greater hardship than would be the case with increased fees supported by loans); in Australia the government was forced to withdraw (albeit perhaps temporarily) its proposal for increased fees; and in Germany all the state governments that introduced fees were either defeated at the next election or withdrew fees because of political concerns.

105. To conclude, the politics of fees is highly controversial and very country-specific.

Next steps

106. This report does not recommend a new arrangement for Hong Kong. That was not part of our brief, and anyway it would be premature for us to do, not having studied the circumstances of Hong Kong in relevant respects. However, the next steps that need to be taken are suggested below.

107. Before any technical work can be undertaken it will be necessary for the Government to decide whether indeed it wishes to proceed to Phase Two of this project – devising a revised system for financing higher education with the possibility of a different balance between student fees and government grant, as well as possibly different arrangements for student support. It will need to do so in the light of the issues raised above and if so it will need to resolve a number of high-level issues of principles from which the design of the system will follow. These include political and policy decisions about the following –

- The level of fees, and conversely contributions from the public purse, that it wishes to see, and on what basis fees should be set
- The nature of any support to be provided to help students pay their fees
  - Whether loans are to be subsidised
  - The extent to which the contribution from the public purse should be by giving grants direct to universities on the one hand or through loan subsidies or other allowances to students on the other
- If there is to be a loan arrangement whether private banks are to be the agents or whether the Government will either itself (as in Australia) or through a new body, as in England, manage provision of loans and their repayment
- If there are to be loans whether their repayments are to be mortgage style or income contingent
- What proportion of cost recovery the Government seeks – and with what precision it is important for the Government to know the cost recovery rate
- Whether student numbers (and therefore student opportunity) are to be controlled, and the level of detail of any control, bearing in mind the unavoidable relationship between student numbers (and opportunity), quality and funding levels
- Who benefits from fees? Should the income come to the Government as general revenue or go to universities themselves?
- The extent to which the private (including the self-financing) sector should be encouraged as an alternative to increasing fees in the public sector
- An assessment in Hong Kong's circumstances of the impact on participation of different levels of fee and different repayment arrangements.

108. Although these are questions of policy and principle, it might be helpful if as part of the decision making process there were some discussion of these and the implications of different approaches, by senior policymakers and practitioners with some knowledge and experience of the implications of different systems.

109. When these questions have been settled then it would be appropriate to develop two or three different approaches/policy options which adhere to the agreed principles, which in turn will involve at

the appropriate time extending the discussions to include others, for example banks, other government ministries or relevant stakeholders.

ANNEX A: FUNDING HIGHER EDUCATION INSITUTIONS IN SINGAPORE

Introduction

110. Singapore represents an example of a country that decided explicitly as a matter of policy some years ago to develop its education system – and in particular its higher education system – as an instrument of economic growth and societal development. It has succeeded in maintaining the funding of its higher education system, indeed, increasing levels of funding, student numbers and the quality and reputation of its higher education institutions. In order to do so it has implemented a novel and slightly unusual form of co-funding between the state and the individual beneficiaries of higher education, but one which at its root has common features with some of the others that have been investigated.

111. Singapore is in some respects similar to Hong Kong – it is a small country based around a single city, though with a population rather smaller than Hong Kong's – at about 5.5 million in 2014. A well-developed country it has a high per capita income – (in 2015 its estimated per capita income was US$85,700 at PPP – the fourth highest in the world, compared to US$56,300 in the USA and US$57,000 in Hong Kong in the same year).

112. It has a higher education system with over 150,000 students divided between three types of institution:

- Three public Universities and one private
  - National University of Singapore
  - Nanyang Technological University
  - Singapore Management University
  - SIM University (UniSIM) – a private university that is targeted at adult learners.

- Five Polytechnics
  - Singapore Polytechnic
  - Ngee Ann Polytechnic
  - Temasek Polytechnic
  - Nanyang Polytechnic
  - Republic Polytechnic

- An Institute of Technical Education (ITE) system, composed of the ITE Headquarters and three regional campuses.

113. In addition there are two independent Arts Institutes, and the Singapore Institute of Education, which is a part of Nanyang Technical University and offers undergraduate and graduate degrees in Education. Only the universities offer degree programmes, but polytechnic graduates (and a selected few ITE graduates) may go on to pursue their undergraduate degrees at universities.

114. The number of students at each of these different classes of institution, is as is shown in Table A1 below:

Table A1. Enrolments in Public Higher Education in Singapore[7]

[7] In addition to the below, 4000 diploma students attend the Nanyang Academy of Fine Arts and Lasalle College of the Arts

Type of institution	Enrolments
Institute of Technical Education	28,000
Polytechnics	70,000
Universities (including 4,000 students at the National Institute of Education)	54,000

Financing of higher education institutions

115. Higher education in Singapore is publicly funded with significant private funding through the tuition fee, arranged in such a way as to ensure that no student should be excluded from experiencing higher education for financial reasons.

116. The system used in Singapore for financing higher education (putting research on one side) is simply stated, and has been in operation for many years with little change, and no current plans to change it. A fee is set (by the Ministry in consultation with each institution) for each type of programme, with different fees in different subjects and in different institutions. That fee – called the "Unsubsidised" or "Full Tuition" fee - represents 100 per cent of the income that the institution will receive in respect of each student in the subject. In that respect it is very similar to the Australian "Base Funding". From the institution's point of view it is quite straightforward: the institution is entitled to receive that amount of money per student, though the sources of that funding are mixed.

117. From the student's point of view it is more complex. The government will pay on behalf of eligible students a proportion of the full tuition fee – the "Tuition Grant" or "Fee Grant" – though the proportion paid by the Government varies according to:

- Institution
- Subject
- Nationality of the student, with different levels of grant paid for
  - Singapore citizen
  - Singapore Permanent Resident
  - International student.

118. This "Tuition Grant" represents what in other countries would be direct government grant to universities. It is, effectively, student-based funding. Whereas elsewhere such an arrangement might be introduced as an instrument of performance funding – where an institution only receives money to the extent that it recruits students, and so the funding system acts as a stimulus for increased recruitment – that is not the case in Singapore where student numbers are controlled by the Government.

119. In order to benefit from the Tuition Grant students have to apply through their HEI. Not all students are entitled to benefit from the Tuition Grant – those not eligible are described below - in which case they will be obliged to pay the full unsubsidised tuition fee.

120. As an example of the system in operation, Table A2 below shows for the National University of Singapore, for Nanyang Technical University and for Singapore Polytechnic a sample of the fees that are charged in different subjects for different types of student.

Table A2: Fees & Fee Subsidies in 3 Singapore institutions (in Singapore $$s)

National University of Singapore					**Nanyang Technological University**					**Singapore Polytechnic**				
	Full Fee	**Subsidised fee (allowing for tuition support grant)**				**Full Fee**	**Subsidised fee (allowing for tuition support grant)**				**Full Fee**	**Subsidised fee (allowing for tuition support grant)**		
		Singapore citizen	Singapore Permanent Resident	International Student			Singapore citizen	Singapore Permanent Resident	International Student			Singapore citizen	Singapore Permanent Resident	International Student
Arts & Social Science	**29050**	7950	11150	15900	**All except below**	**29,110**	7,950	11,150	15,900	**All Subjects**	**26,226.21**	2,600.00	5,200.00	9,050.00
		73%	**62%**	**45%**			**81%**	**62%**	**45%**			**90%**	**80%**	**65%**
Business	**31500**	9350	13100	18700	**Accountancy, Business & Engineering**	**33,570**	9,150	12,800	18,300					
		70%	**58%**	**41%**			**73%**	**62%**	**45%**					
Computing	**37200**	7950	11150	15900										
		79%	**70%**	**57%**										
Dentistry	**135,650**	25,400	35,550	50,800										
		81%	**74%**	**63%**										
Design & Environment	**38,050**	8,600	12,050	17,200										
(Architecture)		**77%**	**68%**	**55%**										
Design & Environment	**29,050**	7,950	11,150	15,900										
(Building, real estate)		**73%**	**62%**	**45%**										
Design & Environment	**37,200**	7,950	11,150	15,900										
(Industrial Design)		**79%**	**70%**	**57%**										
Engineering	**37,200**	7,950	11,150	15,900										
		79%	**70%**	**57%**										
Law	**37,400**	12,400	17,350	24,800										
		67%	**54%**	**34%**										
Nursing	**37,250**	8,950	12,550	17,900										
		76%	**66%**	**52%**										
Medicine	**135,650**	25,400	35,550	50,800										
		81%	**74%**	**63%**										
Music	**100,700**	11,950	16,750	23,900										
		88%	**83%**	**76%**										
Pharmacy	**37,150**	8,800	12,300	17,600										
		76%	**67%**	**53%**										
Science	**37,200**	7,950	11,150	15,900										
		79%	**70%**	**57%**										

Note: Figures in Red represent the percentage Government subsidy of full cost

Source: Websites of National University of Singapore, Nanyang Technological University and Singapore Polytechnic

The exchange rate at the time of writing was 1 SG$ to 5.54 HK$

121. Table A2 shows both the fees that accompany each student (showing separately the fees that are paid by each category of student and the extent of government Tuition Grant). For each student recruited the Institution will in each in all cases receive 100 per cent of the full unsubsidised fee, which in principle represents the full cost of teaching. The sum of all the tuition fees paid by students plus the Tuition Grant paid by the Government represents the total that an institution receives for educating students.

122. In addition to the fees shown here other fees such as examination fees, sports fees, and student union fees charged by universities and polytechnics are low and do not vary much. They average around SG$190 (HK$1,000) annually but depend on course of study. These fees are not considered further here.

123. A number of observations can be made to elaborate the information provided in Table A2 above.

Different levels of funding per institution

124. Different levels of funding are provided to different institutions for apparently similar programmes. The lower level of funding provided to polytechnics may represent the different nature of the programmes provided there. But even within the university sector it is apparent that funding levels are not uniform. That may be for historic reasons, or it may be a recognition that the funding is intended to cover more than just the cost of providing education for the students concerned. If that is indeed the reason for the higher level of funding at some institutions, then the process leaves something to be desired in terms of its transparency.

Differential fees by subject

125. Within each Institution different fees are charged for different subjects. Bearing in mind that what is called the "Unsubsidised Fee" is in effect the total amount of money that an institution receives for teaching a student in that subject then this is to be expected and is unexceptional. So, for example, an institution can expect to receive more for a student studying science than for, say, humanities.

126. What is more noteworthy is that the Tuition Grant – that part of the “Unsubsidised Fee” paid by the Government on behalf of eligible students (see below for a definition of eligibility) – varies substantially between subjects. Again, that is to be expected. If, for example, the Government support for medicine were not greater than, say, humanities, then the fee that students would have to pay for studying medicine would be very high indeed. As it is, although significantly more Tuition Grant is paid for some subjects than others, it will be seen from Table A2 above that the fees payable by students nevertheless vary considerably by subject

Different levels of subsidy for different students

127. Although fees are payable by all students, and Tuition Grant is also available for almost all students, whatever their nationality and residence, and as is discussed below loans are also available to all students whatever their residence or citizenship, it will also be apparent from Table A2 above that different levels of subsidy are provided for students according to their residency and citizenship (with higher levels of subsidy available for Singapore citizens than for others, and higher levels available for Singapore Permanent Residents than for non-residents of Singapore). Nevertheless, it remains the case that the Singapore Government provides subsidy potentially for all classes of student, albeit at different levels. And conversely, fees are payable by students at different rates depending on their citizenship and residence.

International students

128. Although the subsidy is less, there is nevertheless a very substantial subsidy provided even for international students – as high as 76 per cent in music disciplines. The relatively high subsidies provided in medicine and dentistry are no doubt because of the benefit that Singapore will obtain from non-Singaporean graduates in the subject who as a result of the conditions attached to the receipt of the Tuition Grant will be obliged to practice in Singapore for a number of years. And in fact all non-citizen beneficiaries of the Tuition Grant are required to sign an agreement with the Singapore government that they will work for three years for a Singapore based company on graduation.

129. The fact that there is any subsidy at all provided for international students is indicative of the benefit that Singapore believes that it will obtain from their presence (partly direct economic benefit from the fact that they will be spending money within Singapore for their living and other expenditure and partly from the more general benefit that is associated with the presence of international students).

Tuition Grant

130. All undergraduate students are eligible for Tuition Grant support other than the following:

- Those who have previously obtained a degree
- Those who have already taken the number of semesters normally required to obtain a degree
- Those who have been admitted on a full fee paying basis (usually because they are not willing to accept the condition attached to the guarantee – see below).

131. It should be noted that included in the above are non-Singaporean Permanent Residents of Singapore and international students from outside Singapore who may benefit from government subsidy of their fees (though as will be seen from Table A2 above, at a lower – though still substantial - level of support than Singapore citizens).

132. Those not eligible for the Tuition Grant have to pay the non-subsidized tuition fee.

133. All students who wish to benefit from the Tuition Grant are required to execute a deed with the Government of Singapore in the presence of two guarantors who can be of any nationality between the ages of 21 and 65 and who must be physically present at the institution for the signing of the deed. For Singaporeans there is no obligation attached to this scheme but Singapore permanent residents and foreign students must sign a bond with the Government to work for 3 years for a Singapore-registered company upon completion of their programme. Students who benefit from the Tuition Grant are required to pay the difference between the non-subsidized tuition fee and the Tuition Fee Grant- those fees are shown in Table A2 above.

Student Support

134. Although it will be seen from the above that the level of government subsidy through the Tuition Grant is high, fees paid by students are nevertheless substantial, and as in Australia and England loans are available to all students to enable them to pay the fee.

135. "Fee Loans" of up to 90 per cent of the fees payable by Singapore citizens are available to all students (Citizens, Singapore Permanent Residents and Overseas) on the following terms:

- These loans carry a real rate of interest at prime interest rate of the Development Bank of Singapore (DBS) and Oversea-Chinese Banking Corporation (OCBC) – at present around 5.25 per cent - and are not subsidised

- Loans are administered by private banks on behalf of the Government and universities
- No interest is accumulated during the course of study
- Repayment begins either
  - two years after completion or
  - upon securing employment

  whichever is earlier
- Loans are repaid in equal monthly instalments over the loan period, with a minimum of SG$100 repayable each year
- Loans have to be repaid in full within 20 years.

136. These loans are actually bank loans made with funds provided by the Government and guaranteed by the Government and with terms set by the Government. But the contract is between the student and the bank.

137. There is the same concern in Singapore as elsewhere about the affordability of postsecondary education for students from disadvantaged backgrounds, and a concern to ensure that students should not be excluded because of financial pressures. Accordingly, over and above the general government Tuition Grant and fee loans, additional loans are available to Singapore citizens – a Study Loan, means tested, for students from disadvantaged backgrounds, to enable them to pay the 10 per cent of the cost of tuition for which the Fee Loan is not available; and a loan open to all students against their parents' social security payments (the Central Provident Fund Loan).

138. In addition to these national support arrangements individual universities provide their own scholarships and other forms of support for needy students.

139. Government support for students from disadvantaged backgrounds takes the form of additional loans rather than grant. There is no research or empirical evidence that this arrangement has disadvantaged students from poor backgrounds or impacted negatively on their participation. The structure of the support that is provided – whereby regular tuition loans are available to all students to the value of 90 per cent of the fees they pay (meaning that students on more expensive programmes can obtain higher loans), accompanied by the means tested loans that are available for the remaining 10 per cent (which means that students from disadvantaged backgrounds can receive loans amounting to 100 per cent of the fees that they have to pay) results effectively in higher education being free at the point of use for all students from poor backgrounds, though it does mean that those from poor backgrounds have a larger burden of repayment than their better off colleagues, subsequently when they are working.

140. A summary of the loan assistance available to students (taken from a study conducted by the State University of New York, Buffalo) is provided in Table A3 below

Table A3. Student Loans in Singapore

	Tuition Fee Loan	Study Loan	Central Provident Fund Board (Social Security Scheme) Loan
Eligibility	All full-time undergraduate students (not full fee paying). Not means tested.	Full-time undergraduate Singapore citizens who hold the Tuition Fee Loan, the CFP Education Loan &/or other grant or loan from a registered government agency. Means tested.	All full time undergraduate can use their own, their spouses or their parents' CPF Savings.
Source of Capital and Risk	Government funds loan. Development Bank of Singapore (DBS) and Oversea-Chinese Banking Corporation (OCBC) originate and administer. Student must provide guarantors.	Government funds loan. Student applies through their higher education institution. Students must provide one guarantor.	CPF No guarantor required if student is a Singapore citizen or permanent resident.
Loan Amounts	Up to 90 per cent of subsidized tuition fees payable by student.	Based on household income, students borrow either 10 or 20 per cent of subsidized tuition fees & annual living allowance of SG$3,600 (HK$20,000).	Up to 100 per cent of subsidized tuition fee payable by student.
Terms	Interest rate is the average of the prime rates of the DBS, OCBC and UOB. No interest is accumulated during course of study. Repayment begins two years after completion or upon securing employment. Minimum payment amount of $100/month. Maximum repayment period of 20 years.	Interest free during study years then based on primate lending rate of three local banks. Interest may be waived up to five years after graduation. Repayment begins two years after completion or upon securing employment, whichever comes first. Minimum payment amount of SG$100/month (HK$5,500). Maximum repayment period of 5 years (if interest waived) or 20 years (if interest bearing).	Prevailing CPF interest rate computed from the date of withdrawal. Grace period of not more than 1 year after graduation. Repayment of SG100/month (HK$5,500) per month. Maximum repayment period of 12 years.

Source: SUNY Buffalo *The International Comparative Higher Education Finance and Accessibility Project*
http://gse.buffalo.edu/org/inthigheredfinance/files/Country_Profiles/Asia/Singapore.pdf

Cost recovery

141. There are two elements to the cost potentially borne by the Singapore government for the education of students:

- Tuition Grant
- Loans made to students to enable them to pay their share of pay the fees for which they are liable.

142. All the loans made by the Government (Tuition Fee Loans, Study Loans and loans made supported by the Central Provident Fund Board (Social Security Scheme)) carry a real and substantial rate of interest, calculated to ensure that there is no net cost to the Government arising from these loans. However, there has been no published calculation to demonstrate that that is so, nor did enquiries of the Singapore Ministry of Education reveal anything to support a suggestion that the extent of cost recovery from the loans had been explicitly calculated. Nevertheless, even if the calculations are not explicit, the way the loans are constructed makes it reasonable to believe that they probably are cost neutral or close to cost neutral for the Government.

143. In particular the following are features of the loan:

- They carry a substantial real interest rate
- They are repayable in full within 20 years
- Interest accumulates on outstanding debt plus interest
- All loans have guarantors.

144. The other element of potential cost of the Government – the Tuition Grant – is explicit and known in advance. Although different levels of Tuition Grant apply to different classes of student and for different subjects, it is the Government that decides in advance how many students may be recruited in the different classes of student in the different universities and in the different subjects. So the Government's liability (that part of the cost of higher education that is not recovered through the fee paid by the student) can be computed and is known in advance, and the range is shown in Table A2 above. Generally it appears to be between 90 per cent and 67 per cent in respect of Singapore citizens, 80 per cent and 54 per cent in respect of Singapore Permanent Residents and between 76 per cent and 34 per cent in respect of international students.

145. Fees are reviewed and adjusted periodically to reflect the approximate cost of providing education to students. Unlike undergraduate education, most graduate programmes are designed to be largely self-funding, with little or no subsidy from the Government of Singapore. Nonetheless, at present, all graduate research programmes and some graduate coursework programmes remain subsidised to a significant extent.

Summary of answers to the research questions

- Cost recovery and subvention from the public purse
  - Cost recovery is explicit and determined by the Government with reasonable levels of confidence. It varies between type of student (depending on their residence, nationality and citizenship), but even for international students is not 100 per cent. It also varies by subject and to a lesser extent by institution. Broadly, cost recovery ranges from about 12 per cent in music to 30 per cent in Business for Singapore citizens with higher levels (but still short of 100 per cent) for Singapore Permanent Residents and international students.

- Fees and fee levels. Where fees are, or have been, charged
  - Fee levels are as shown in Table A2 above and range from about SG$135,640 for a student of medicine or dentistry paying the unsubsidised fee to SG$2,600 for a

Singapore citizen paying a subsidised fee (all subjects in Singapore Polytechnic.

- Differential fees
  - Differential fees are charged depending on institution, subject and category of student and citizenship/domicile of student.
- Higher fees for out of area students
  - Higher fees are charged for out of area students and also for students who already have a first degree or who have otherwise benefited from a subsidy.
- Whether tuition fees are set nationally or whether they are set at the discretion of individual institutions.
  - Tuition fee levels are set by the Government.
  - The Government also decides on annual increases.
- How tuition fees paid by students are distributed between institutions and the Government
  - Institutions are guaranteed a level of income based on the Unsubsidised Tuition Fee. In principle the tuition fee is paid in full to the institution, though in most cases the Government pays part of the fee on behalf of students in the form of Tuition Grant
- Fairness and affordability: what evidence there is about the impact on participation of the funding regime, and in particular participation by students from disadvantaged backgrounds
  - There is no evidence that the relatively high cost of higher education and the fact that what support there is in the form of loans rather than grants has had a negative impact on participation which remains buoyant and growing
- Support (e.g. loans) available for the payment of tuition fees
  - Loans are available for all students – whatever their domicile or citizenship – to pay 90 per cent of the fee payable by Singapore citizens (and for economically disadvantaged Singaporean students for the remaining 10 per cent as well). In addition, a range of loans are available for economically disadvantaged students who are citizens in respect of maintenance. Individual universities have grants available for disadvantaged students but centrally provided grants are not available.
- Private higher education – and in particular if student loans available to private HE students
  - Apart from the direct government Tuition Grant, all support provided to students for the payment of fees is in the form of loans. The issue of private higher education barely arises – there is only one private institution and students attending it are eligible for the same support as other students
- Source of capital and its repayment
  - The Government provides the loan finance, but the loans are administered on behalf of the Government by banks appointed as agents by the Government

Key References & Sources

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ANNEX B: FUNDING HIGHER EDUCATION INSITUTIONS IN ENGLAND

Introduction and Background

146. In England until recently higher education has been substantially publicly funded, as it has in most countries, and there has been little private contribution. However, some students have always paid a fee – postgraduate students, some part-time students and (since the mid-1960s, greatly increased in the early 1980s) international students from outside the EU.

147. Fees for undergraduate students were first introduced in 1998, originally at £1,000 -about HK$11,000 per year (calculated as being roughly 25 per cent of the average cost of tuition). Their introduction followed a wide-ranging review of higher education (the Dearing Review) which recommended that fees should be charged supported by income-contingent loans. Under the Dearing proposals fees would not be payable in advance – education would be free at the point of use. The Government rejected this proposal – under the 1998 arrangements fees were payable in advance, with no loans available to support these, but means tested so students from the poorest backgrounds paid nothing, and others according to the economic situation of their parents. Only about 40 per cent of students were liable for the full fee – and generally it was the parents who paid. This arrangement was to enable the maximum public resource to go into maintenance support for students.

148. Between 2006 and 2012 the fee was increased to £3000 (HK$33,000) per year, but a subsidised loan was available to students to pay this fee, repayable when the student had graduated (and indeed even if they had not graduated), on an income contingent basis – this was the income contingent loan arrangement pioneered in Australia, and effectively the system recommended by Dearing though with a higher fee level. Graduates paid nothing until they earned £15,000 (HK$165,000) per year and subsequently paid 9 per cent of any income over £15,000; and any debt that remained unpaid after 25 years was written off.

149. Under these arrangements there remained a substantial public contribution to the cost of education through the loan subsidy (it was originally estimated that about 30 per cent of the total student debt would be written off) and the Government continued to pay substantial grants directly to institutions through the Higher Education Funding Council for England (the body in England equivalent to the UGC in Hong Kong).

150. In 2012 the maximum fee that institutions could charge for higher education programmes was increased to £9000 (HK$100,000), and although institutions were free to charge any amount up to that level[8] the great majority of institutions charged fees near or at the maximum[9]. As before, a loan was available to undergraduate students to pay the fee, with generous repayment terms – effectively the loan was heavily subsidised. The repayment threshold was increased from £15,000 under the previous arrangements to £21,000 (HK$230,000) under the new (that is to say that repayments only had to be made on income over £21,000), and there remained a cut-off point beyond which loans were forgiven, although that was raised from 25 years to 30 years. There was a real rate of interest payable that increased with income.

[8] Institutions are required to enter into an 'access agreement' with the Office for Fair Access' if they wish to charge over £6000 (HK$70,000), such agreements covering measures the institution will take to widen participation. All universities and most Further Education Colleges that offer degree programmes have entered into such agreements which are not unduly onerous but which ensure that a small proportion of the total fee is used for activity to enhance access, participation and student success.

[9] Many Further Education colleges charge less than the maximum, but they are minor players in English HE and the discussion here is largely limited to universities.

151. Under the 2012 arrangements, other than for a very limited number of high cost subjects where a £9,000 fee could not cover the cost, the Government would no longer pay any grant directly to higher education institutions for the education they provided. Virtually all government funding in respect of education would be provided in the form of a subsidy for the tuition fee loan which students obtained. However, because of political realities the Government felt obliged to provide very generous terms for the repayment of these loans – which effectively has meant a very large government subsidy. The subsidy has proved to be so great as to mean that the cost of the new arrangements to the public purse has been more or less the same as the £3,000 fee arrangements that they replaced, which had less generous repayment terms and therefore a smaller subsidy. So the Government has recently proposed to change the terms of the loans to make them less generous and therefore less costly (to the Government, but more costly to the student/graduate).

152. The Government introduced the 2012 arrangements having rejected the approach recommended by an independent review of funding – the Browne Review – which anticipated the problem of the cost to government of high fee levels and high loan subsidies by proposing that institutions should be free to charge uncontrolled fees which should be subject to a graduated 'levy'. Under the Browne proposals institutions would have paid to the Government an increasing proportion of fees above £6,000 – rising to 27 per cent of fees between £6,000 and £12,000. This arrangement was explicitly to allow institutions to have discretion over the fees they charged, while disincentivising high fees and reducing the cost to the Government of the loan subsidy. However, it was rejected by the Government in favour of a flat maximum fee of £9,000.

153. Although the fundamentals of the arrangements did not change between 2006 and 2012 – student fees supported by income contingent repayable loans, so education remained free at the point of use for undergraduate students – in reality the new arrangements represented an ideological shift. Higher education institutions now relied entirely (or almost entirely – there remains residual direct funding of institutions for a small number of high cost subjects) on student fees for the income that they received for teaching, thus effectively putting their financial health and their very futures in the hands of "consumers".

154. The situation in England is confused to some extent by the fact that these new arrangements were introduced in the midst of an economic crisis, and so it is unclear to what extent they were introduced on the one hand out of economic necessity to reduce government expenditure or on the other hand out of ideological and policy conviction. Certainly, the Government's claim is that the new arrangements have been introduced in order to ensure that higher education institutions have a sustainable funding basis for the future

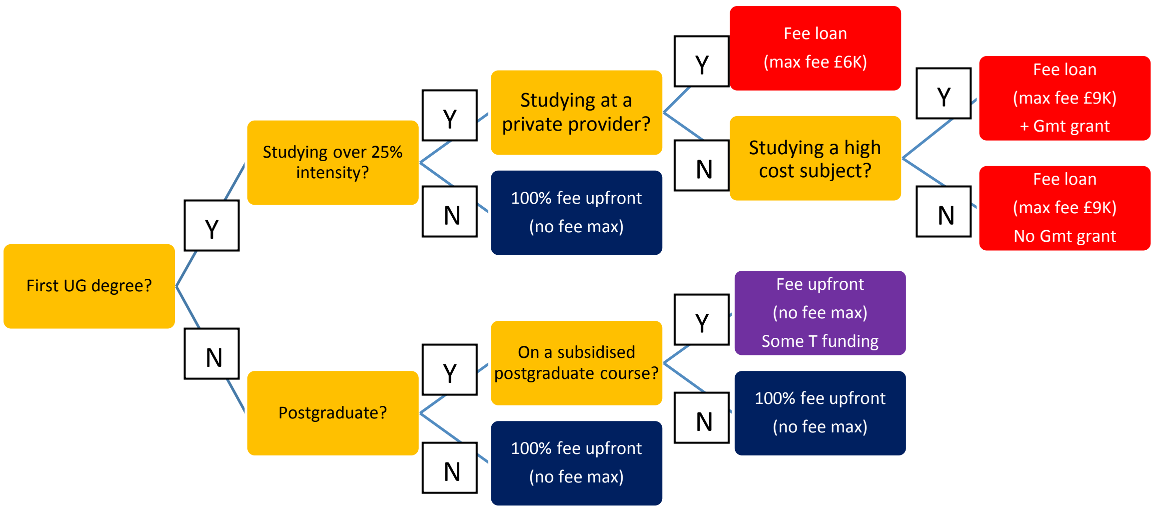
155. The following paragraphs describe the system currently in place in England in more detail along with some of the implications and consequences

156. Figure B1 below describes the allocation of funding from the perspective of the student in England where the primary distinction in the allocation of public funding (including access to publicly subsidised fee loans) is whether the student is a first time undergraduate entrant; i.e. whether this is her first degree. If yes (approximately 95 per cent of all full-time undergraduates and 33 per cent of all part-time undergraduates[10]), the student will have access to a fee loan and her institution will receive direct funding if she is on a high-cost course[11]. If, however, she is re-training in a different area,

[10] For part-time students there is a second qualifying criterion in that students have to be studying at an intensity or workload of more than 25 per cent of a full-time equivalent to qualify for a fee loan
[11] In addition, the institution will receive a small subsidy if she is from a low-income background

studying at less than 0.25 full-time equivalent (FTE), or is a postgraduate student (discussed in more detail below) she does not qualify for a fee loan and her institution is much less likely to receive any direct funding for the cost of her course, meaning she is likely to be on a full fee programme where students have to pay 100 per cent of the price of the course upfront (shown in dark blue).

Figure B1: English criteria for accessing fee loans and public funding[12]



Source*: A comparison of higher education funding in England and Australia: what can we learn? Figure 1* HEPI 2014

157. Students eligible for a loan to cover their fees may take a loan up to the value of fee charged by their institution (maximum of £9,000 (HK$100,000) in public[13] higher education institutions and further education colleges that offer higher education qualifications (less in private higher education institutions). These loans are paid direct to the institution by the Student Loan Company (a body established by the Government to provide loans and receive repayments, and whose financing comes entirely from the Government and graduate loan repayments). Those benefiting from loans (whether they graduate or fail to complete their studies) are required to repay a proportion of any income they earn above a threshold.

158. To be clear, for students in England, if they do not qualify for a Government subsidised fee loan (all students in dark blue or purple in Figure B1 above), they have to pay the fee upfront in full. In most cases, this will cover the full cost of the programme.

159. There is a £21,000 (HK$230,000) earnings threshold, above which all earnings of graduates are subject to a charge of 9 per cent. They pay nothing if their earnings are below this threshold. Payments are made through the tax system – deducted at source along with income tax. In effect, graduates pay a 9 per cent tax surcharge on earnings above £21,000. It is this that has led some

[12] Figure B1 applies to all home and EU students. It excludes international student who pay 100 per cent upfront fee and attract no public investment. Post-graduate research students are also excluded.
[13] Strictly, "public" universities in England are not public, in that they are not publicly owned. They are independent bodies, established either by Royal Charter for Act of Parliament. But here "public" is taken to indicate institutions that are subject to the oversight of the Higher Education Funding Council for England.

informed commentators to argue that the English system is more akin to a graduate tax than a debt and debt-repayment system.

160. As an example, a graduate earning £30,000 (HK$330,000) will repay just over £800 (HK$9,000) per year (9 per cent of £9000) – a relatively modest amount. One concern is that it is estimated that it will take an English student on average 26 years to pay off their loan, and as many as 60 per cent will not repay the loan in full (because of the 30 year write-off provision).

161. Table B1 below provides a summary of the English system.

Table B1: summary of loan design and outcomes for England

	English fee loan
LOAN	
Max loan value (1 year)	£9,000 (HK$100,000)
Average debt on graduate	£25,350 (HK$280,000)
REPAYMENT	
Earning threshold	£21,000 (HK$230,000)
Repayment rate once over earning threshold	9% of earnings over £21,000
Interest rate	Progressive, up to 3% above inflation
Loan written off after	30 years
OUTCOME	
Loan subsidy (RAB) (recent official estimate[14])	45%
Average repayment period	26 years+
Proportion of graduates who benefit from 30 year write-off	60%

Source: Adapted from *A comparison of higher education funding in England and Australia: what can we learn? Figure 6 HEPI* 2014

162. In addition English students on average take a maintenance loan of £3,840 (HK$45,000) per year on the same terms as the fee loan. So the total average debt of an English student after three years is nearly £37,000 (HK$410,000)

163. Table B1 above lists the four key factors in the design of a loan system:

- Earnings threshold for repayment;

[14] The Resource Accounting and Budgeting (RAB) charge - the real terms long run cost to the taxpayer -is estimated by the Government to reduce from 45 per cent to nearer the originally envisaged 30 per cent as a result of a lowering of the repayment threshold and a decision by the Government to assume a lower future cost of Government borrowing in the calculation of the RAB cost.

- Repayment rate over earnings threshold;
- Interest rate; and
- Forgiveness period.

164. Alongside the total value of the loan taken by the graduate, it is these factors that affect the outcome of the loan design for both graduates (for repayments) and Government (for subsidies / cost).

165. In England, it is the combination of a high debt alongside a relatively high earnings threshold and low contribution requirements over the earnings threshold that results in the long average repayment period of 26 years and high subsidy cost to Government (45 per cent RAB charge until the recently proposed changes) as shown in Table B1 above. The real interest rate is a progressive tool for gaining higher repayment from high earners but, in combination with other factors, is not enough to significantly reduce the Government subsidy. With over 60 per cent of graduates benefiting from the 30-year write-off of debt, this is not surprising.

Fee variation

166. Taking medicine and humanities as examples at opposite ends of the cost spectrum Table B2 below compares the total resource available for education in these subjects and reveals that in humanities there is 64 per cent cost recovery by the state compared to 28 per cent in medicine – not a surprising result given the very different costs of the two disciplines and the fact that the fees paid are the same

Table B2: Comparison of public: private contribution for Humanities and Medical degrees (first degree, undergraduate courses)

		Humanities	Medical
Private contribution	**Max fee level**	£9,000 (HK$100,000)	£9,000 (HK$100,000)
	Average fee	£8,425 (HK$92,000)	£8,425 (HK$92,000)
	Average actual contribution	**£5,055 (HK$55,000)**	**£5,055 (HK$55,000)**
Public contribution	**Direct funding**	£0	£10,000 (HK$110,000)
	Loan subsidy	£3,370 (HK$37,000)	£3,370 (HK$37,000)
	Total public contribution	**£3,370** (HK$37,000)	**£13,370 (HK$147,000)**
Total resource		£7,925 (HK$87,000)	£17,925 (HK$197,000)
Private contribution as a % of total funding		**64%**	**28%**

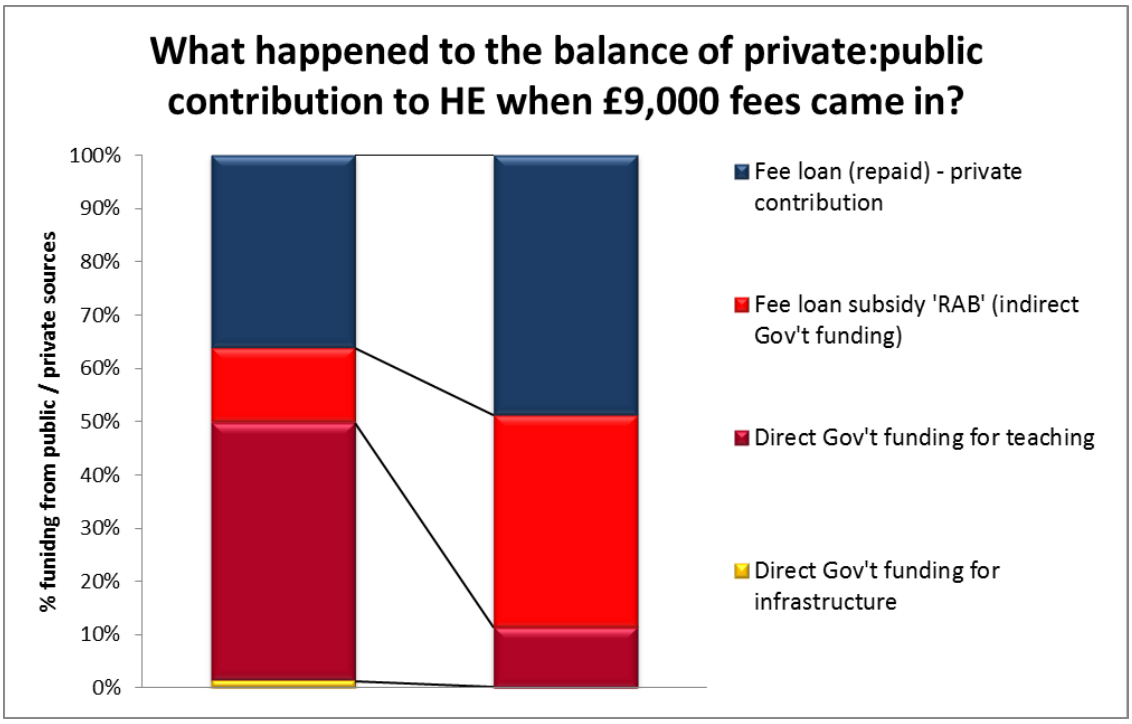
Source: Adapted from *A comparison of higher education funding in England and Australia: what can we learn? Figure 7* HEPI 2014

The effect of introduction of £9,000 fees on the balance of private: public investment

167. Figure B2 below shows how the flow of public and private investment shifted for first time undergraduates in England after the 2012 reforms that introduced a £9,000 fee. It shows that the balance of private: public investment in teaching (shown in blue: red respectively) has shifted significantly from around 35:65 to nearer 50:50 under the new system of £9,000 fees. Essentially the

new English arrangements mean that not only has the Government contribution reduced, but that instead of the Government contribution taking the form of a direct grant to higher education institutions, the majority takes the form of a subsidy of the loans provided to students – a subsidy of the interest rate and absorption of the cost of loans that are not repaid.

Figure B2: What happened when £9,000 fees were introduced



Source: *A comparison of higher education funding in England and Australia: what can we learn? Figure 4* HEPI 2014

168. The subsidy on fee loans is largely invisible to the 'user', which means the public investment is invisible also. Indeed no student beginning a programme can know whether they will benefit from any subsidy, which mainly takes the form of absorption by the Government of the cost of loans that are not repaid. The system, and in particular the costs, are not transparent. Given public reaction to £9,000 fees in England, including student riots, the lesson from England might be that direct funding for teaching is a more transparent method of public investment in HE that can more easily facilitate a social contract based on a practical demonstration of shared investment.

169. It is worth repeating the point made above that Figure B2 above also shows the massive shift within the streams of public investment (shown in shades of red): direct funding for teaching has been almost entirely substituted by loan subsidy, with some held back for high cost subjects and high cost students, and capital funding for teaching has been removed.

170. What Figure B2 does not show, because it is based on percentages, is the total resource going to higher education institutions as a whole. Despite the trebling of fees to £9,000, the total resource going to higher education institutions only slightly increased in 2012-13. Higher fees were matched by cuts in direct funding for teaching (100 per cent in most subjects), which meant that higher education institutions did not see a significant rise in funding or resource, despite students seeing a large increase in the costs they meet. On the other hand, the English higher education sector as a whole did avoid any serious decline in resource during a time when other non-protected areas were being cut as a result of the economic crisis.

171. The English experience teaches us that it cannot be assumed that any savings derived from transfer of funds between direct public investment and loan subsidy will flow to the institutions rather than make up savings for Government. This is inevitably a political decision about whether any savings should go to increase the HE budget or to other Government priorities, including just budget saving or deficit reduction. It also teaches us that loan subsidy is in many ways an unsatisfactory way of providing public funding: unless the terms are very carefully constructed such an arrangement risks exposing the Government to uncertain levels of expenditure; and the extent of the subsidy from which a student might benefit is unclear to the student.

172. The other important lesson concerns the uncertainties associated with income contingent repayment arrangements. As an illustration of this, just less than four years after the introduction of the £9,000 fee regime the Government in England has felt obliged to change the terms of the loans it provides, lowering the threshold above which repayments have to be made. This will have the effect of reducing the cost of the subsidy of loans, since it will increase repayments[15.]

173. The other thing the government has done which together with the change in the repayment terms has reduced its estimate of the loan subsidy from 45 per cent back down to 30 per cent – is to change its assumption about the long-term cost of government borrowing. Nothing else has changed, but a key assumption about the future has been changed in the calculation – there is no basis for believing that the new estimate of 0.7 per cent is more likely to be accurate than the previous estimate of 2.2 per cent – but this simple change in an assumption about the future has enabled the Government to reduce its estimate of the cost of the subsidy. This is an illustration of one of the problems with subsidised loans, and income contingent loans in particular – their cost cannot be properly calculated when the policy is introduced and the loans made, and any miscalculation will fall to future generations to remedy (and conversely any over-estimate will be to their benefit).

174. On the other hand, transferring public investment from core teaching funding to loan subsidy is a way of using public funding to unlock private funds – it does, in theory, allow greater total resources to flow into the system overall. So there are compensatory benefits but the experience of England has hitherto been mixed.

Impact on access and participation

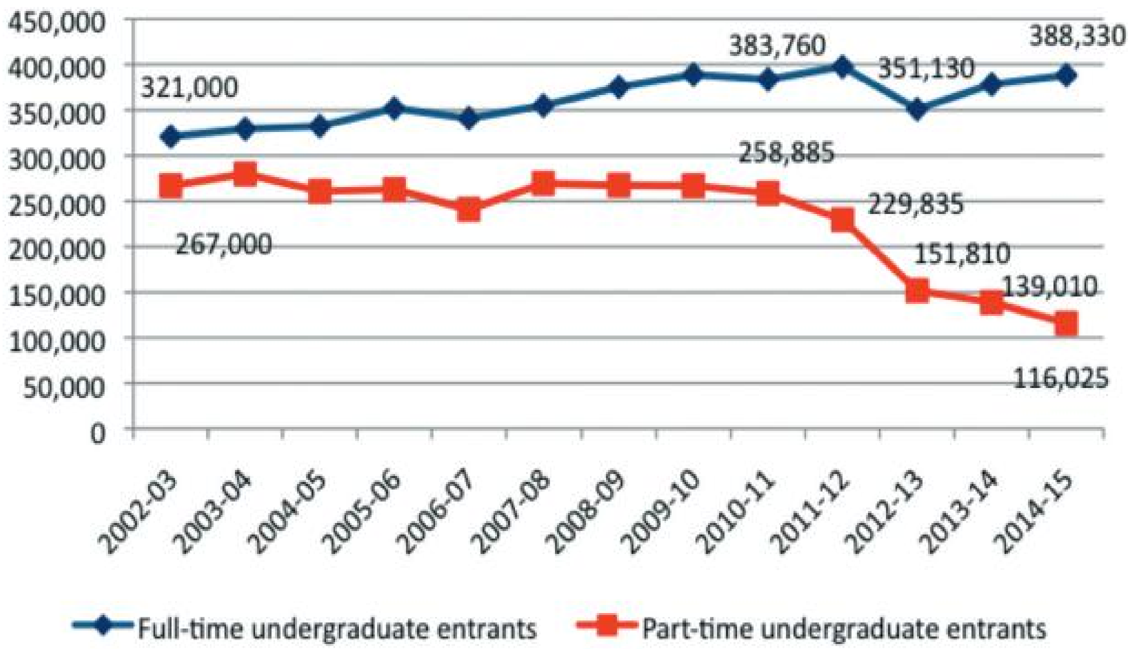
175. The experience in England with regard to the impact of the arrangements on access is complicated. Figure B3 below shows that the long-term participation trend among full-time first-degree young undergraduates was unaffected by the increase in fees to £9,000. Although a dip occurred in the first year of the new arrangements this was because significant numbers had brought forward their participation in higher education to avoid the increase in fees, and the long-term trend resumed in subsequent years.

176. Indeed, we know that applications from students from poor backgrounds have actually increased despite the fee increase, but this is just amongst young, full-time, first time undergraduate entrants – i.e. those students who can access a Government subsidised fee loan. Whilst this indicates that it may be possible to increase fees without damaging access so long as income contingent loans are available, this does not reflect the other parts of the system where students do not have access to these loans.

[15] In fact, the Government has made this change retrospectively to the terms of loans already made to students since 2012 – a move which in effect means students in future will take loans not knowing whether the terms on which they have taken them will be honoured. It effectively means that students do not know the terms on which loans are being taken.

177. For other undergraduate students – part-time students in particular – the effect has been severe. Figure B3 below shows how the reduction in participation by part-time students, which was occurring anyway, sharply accelerated after the announcement of the higher fees.

Figure B3: Trends in full time and part time undergraduate numbers - UK and EU undergraduate entrants to English Higher Education Institutions and Further Education Colleges, 2002/03 – 2014/15 by mode of study



Source: *It's the finance, stupid! The decline of part-time higher education* HEPI 2014 Derived from HEFCE, *Higher education in England 2015: Key Facts* (2015)

178. There was a 40 per cent drop in part-time entrants in England over just two years from 2011-2013. Whilst this snapshot is by no means the whole picture (for example, much of this drop happened the year before higher fees were introduced in 2012), it is difficult to conclude other than that higher fees, where combined with restricted access to fee loans, have reduced participation amongst some of the most non-traditional and hard to reach students. How much of this was due to poor information or other supply factors or to extraneous demand factors (e.g. the economic downturn in England) is almost impossible to ascertain but the outcome is plain.

Postgraduate students

179. There is concern in England that the new fee arrangements for undergraduate education may impact adversely upon postgraduate demand, particularly among those from disadvantaged backgrounds. However, the picture is complicated for a number of reasons. First it is too early to see any pattern yet among students who have experienced the new £9,000 fee regime – graduates have only just started to appear with the level of debt that that has created - there has only been one cohort of students graduating from the new £9,000 system that started in September 2012. Whilst we can speculate about the behaviour of students carrying an increased fee loan, we do not know with certainty how these graduates will behave. Second, we are used to a postgraduate market in which

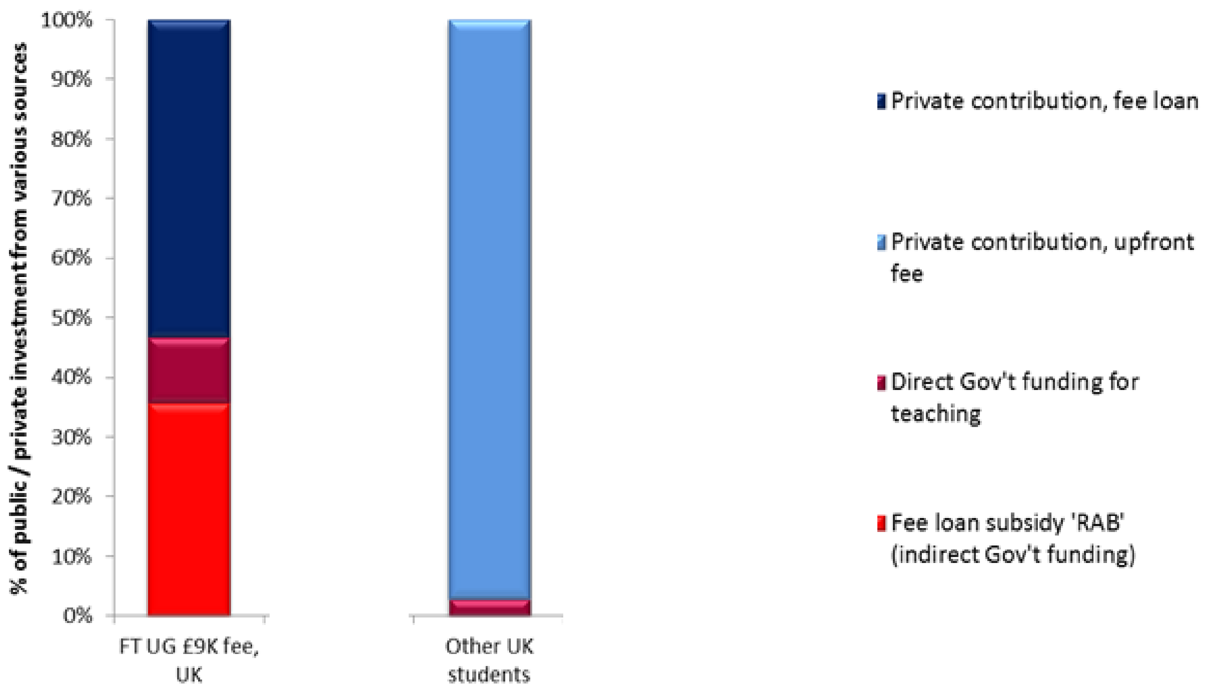
students have to pay the fee upfront – usually for a 1 year postgraduate taught degree. And whilst postgraduate fees have gone up slightly since 2012-16, they have certainly not trebled.

180. Thirdly, we are only at the early stages of developing credible measures of deprivation for postgraduate students: measures of disadvantage for undergraduate students are based on an assessment of parental economic status. Such measures are not appropriate for postgraduate students. Therefore it is difficult to know the impact of these changes on access to postgraduate education for certain.

181. Australia has reduced (but not eliminated) the risk that upfront costs might reduce applications from poorer students by ensuring that all postgraduate students can access a fee loan. In England from 2016 some postgraduate students will have access to loans, but on far less generous terms than undergraduate students. Whether this will remove the obstacle of upfront cost and affordability – still feared to be the main barrier to access to some forms of HE in England - remains to be seen.

182. Figure B4 below summarises the different treatment of full-time undergraduate students in England on the one hand and part-time undergraduate and postgraduate students on the other. It will be seen that very much greater public support is available for the former, albeit the majority in the form of loan subsidy, and private contributions are supported by a fee loan. In respect of the latter, however, almost the entire cost is met by private upfront payment of fees, with very little government support of any kind.

Figure B4: balance of public: private investment for full-time undergraduates on the one hand and part-time and postgraduate students on the other



Source: Derived from *A comparison of higher education funding in England and Australia: what can we learn? Figure 5* HEPI 2014

[16] The 2013-14 average fee for UK or EU students on taught postgraduate courses rose by 7 per cent on the previous year at universities that also provided data for 2012-13. International and postgraduate student fee survey, 2013, Times Higher Education.

183. It will be apparent from the above that significant parts of the HE system in England carry virtually no public investment. This is an important (and often unrecognised) feature of any HE market where public investment is selectively made in priority areas.

International students

184. The fees charged of international students are not controlled by the Government and nor are international students eligible for tuition fee loans. Consequently fees charged of international students are significantly higher than those charged of home and EU students. There is a true market in international students and higher education institutions rely on their fees for a significant part of their income – more than 10 per cent of the total income of higher education institutions in England is generated by fees paid by international students (postgraduate and undergraduate). However, one by-product of the higher fees now charged of domestic students is that the differential between home fees and international fees has reduced considerably. This does not appear yet to have diminished the appetite of English higher education institutions to recruit international students.

Private higher education

185. It needs to be emphasised that the above discussion applies to the financing of public institutions. However, there is in England a substantial and growing private sector whose students are able to access fee loans, repayable on similar terms to those available to students attending public institutions (although the maximum loans they may take is lower). Private institutions (for-profit and not-for-profit are not distinguished in this respect) are required to apply to the relevant government department for programmes to be designated, and once designated students taking those programmes may obtain loans of up to £6,000 (HK$66,000) to cover their fees. This lower level of fee loan has in many cases effectively put a ceiling – or at least a damper - on the amount of fees that are charged which, together with the often shorter time required to graduate, means that the total study cost in private institutions can be significantly lower than in public.

Summary of answers to the research questions

- Cost recovery and subvention from the public purse
  - In England, more so than in many other countries, the public cost of the arrangements for the financing of higher education is difficult to establish. That is because as a matter of deliberate policy much of the funding provided for undergraduate education is provided through the subsidy of the loans that students receive to pay their fees. Repayment of these loans is income contingent which means that how much is repaid depends on how much graduates earn over the next 30 years or so.
  - Effectively in introducing an arrangement with a high fee and a high loan subsidy the Government introduced an arrangement whose cost was unknowable. And that is manifested by the fact that the original government estimate was that around 30 per cent of the student "debt" would be unpaid and that therefore cost recovery would be around 70 per cent whereas just three years later the estimate of cost recovery was reduced to 55 per cent. And to address this the Government is proposing retrospectively to change the terms of loans that students have already taken. If this change is introduced the best estimate of cost recovery is that it will be between 60 per cent and 70 per cent.

- Fees and fee levels

- The government sets a maximum fee that institutions may charge home and EU undergraduate students – currently £9,000 in public institutions and £6,000 in private - and institutions are free to charge up to that limit. In reality almost all charge at or near the maximum. There is no cost-based market in higher education in England, in part because no institution wants to be known as a "low-cost institution" (and actually nor do their students want to be associated with such an institution).

- Differential fees
  - Although it is theoretically possible for institutions to charge different fees for different subjects, none do so at present for home and EU students (though most do for international students). On the other hand, the Government has set a maximum fee loan that is available to students that is lower for students pursuing degrees in private institutions, so effectively encouraging lower fee levels for such institutions. And lower fees tend to be charged for higher education programmes at further education colleges.

- Higher fees for out of area students
  - Higher education institutions in England are free to charge whatever fees they wish not only for out of area but also for part-time and postgraduate students. As a consequence very high fees are charged by some institutions for international students whose fees are an extremely important element in the budgets of English higher education institutions.

- Whether tuition fees are set nationally or set at the discretion of individual institutions
  - Tuition fees maxima for full time undergraduate home and EU students are set by the Government but within those maxima tuition levels are decided at the discretion of individual institutions
  - Fees are adjusted at the Government's discretion. The reality has been that maximum fee levels have not altered since they were set at £9,000, so their real terms value has eroded somewhat.

- How tuition fees paid by students are distributed between institutions and government
  - Fees are paid to the institutions direct by the Student Loans Company. The Government does not receive any part of these.

- Fairness and affordability: what evidence there is about the impact on participation, and in particular participation by students from disadvantaged backgrounds
  - Slightly surprisingly perhaps, the introduction of fees of £1,000 in 1998, the increase to £3,000 in 2006 and the tripling to £9,000 in 2012 appear to have had no long-term impact on participation generally nor in particular participation by disadvantaged students. What is important in this respect perhaps is that the fees have been accompanied by loans that are available on relatively generous repayment terms. Higher education remains free at the point of use.

- Support (e.g. loans) available for the payment of tuition fees
  - Fee loans are available for almost all full-time undergraduate students and now also for some postgraduate and part-time students. In addition loans are available for

living costs (maintenance loans) for all full-time undergraduate students, and on a means tested basis higher levels of maintenance loans may be available for students from economically disadvantaged backgrounds.

- Private higher education – and in particular if student loans are available to private higher education students
  - Private higher education providers are required to have programmes designated, following which students pursuing those programmes may obtain loans, though at a lower level than students at public institutions. Designation is not unduly difficult to obtain, and significant numbers of students at private institutions are in receipt of fee loans. There is no distinction between for-profit and non-profit providers.
- Source of capital and its repayment
  - The Government provides capital finance to the Student Loans Company which pays fees on behalf of students and then administers repayments through the tax system, using the repayments received to augment its capital base.

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ANNEX C: FUNDING HIGHER EDUCATION INSITUTIONS IN AUSTRALIA

Base funding

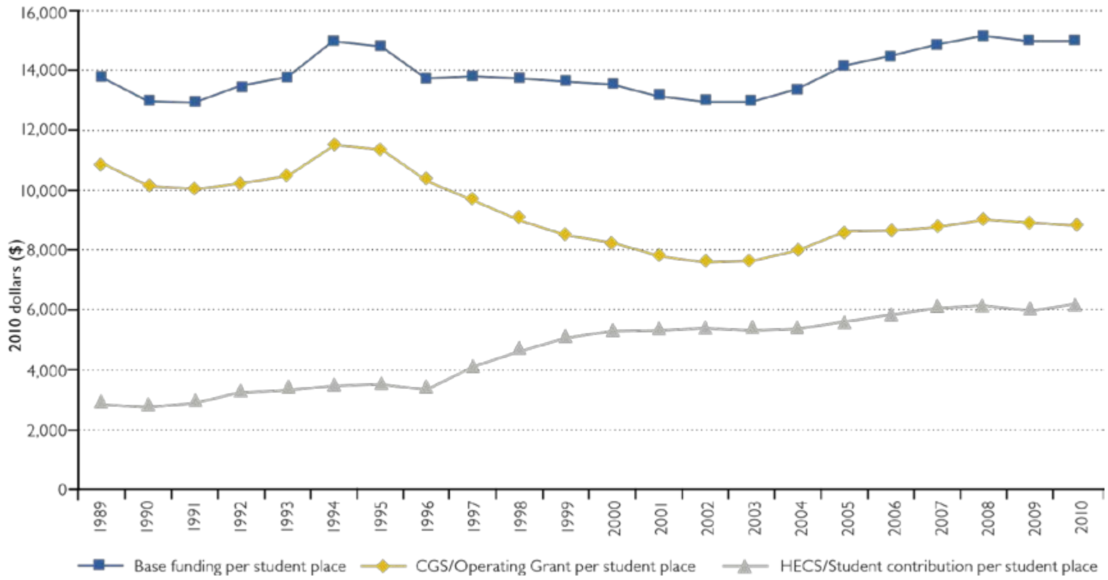
186. Base funding for higher education institutions (note, other tertiary institutions - vocational education and training colleges, for example - have different funding arrangements) comes from two sources. The principal source of funding is grants from the federal government (called Commonwealth funding).

187. The second source of base funding is student tuition fees[17]. 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 higher education institutions receive, having increased from about 20 per cent since 1989.

188. The stated purpose of base funding is to enable HEIs to provide education for students, and this includes a contribution to the basic running and infrastructure of the institution. A recent study by Deloittes 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. So with 40 per cent from fees and 90 per cent spent on teaching about 44 per cent of the cost of teaching is privately provided. However, this cannot be regarded as the cost recovery rate because of the subsidy of loans provided by the Government to students to pay fees (discussed in more detail below).

189. 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 Figure C1 below.

Figure C1: Income per Commonwealth supported place (2010 dollars)



Source: *Higher Education Base Funding Review Final Report Figure 1.1* Department of Education and Training

[17] Within Australia, 'tuition fee' usually refers to the unregulated fees paid by full-fee students, while student contributions ('HECS' in popular language) refers to the regulated charge paid by students in Commonwealth supported places. In this report the term is used in its more general sense.

Calculation of base funding

190. The idea of base funding is to supply the total amount of money to higher education institutions 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

> *Total Base Funding (Commonwealth grant + tuition fee) = FTE[18] students*average base funding per student.*

191. The levels of total funding per student in the different subjects on which the calculation of base funding depends was established more than 20 years ago following a detailed study and their values have been regularly uplifted since in the light of inflation (a wage price index for professional, scientific and technical services is used for this purpose). This updating has clearly been effective, since the recent review concluded that the value of base funding remained adequate for its purpose (although universities would argue that this has been achieved via casualization and higher student to staff ratios).

192. It should be noted that it is the per student funding rate that is updated – these 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 were originally set as ratios one to the other, or relativities, and the precise base funding rates per student in different subjects were calculated using these ratios, and still largely reflect these. Programmes offered by higher education institutions 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, Appendix C1 shows a single funding cluster, and the detailed programmes that are designated within the cluster.

193. 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.

194. Within each funding cluster funding rates necessarily represent an average. There is a widespread feeling that the relativities between subjects 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 its funding reform proposal (now on hold[19]) the Government 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 at Appendix C2 shows the new funding tiers and corresponding Australian Government contribution amounts that were proposed for bachelor and higher level degrees.

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[18] FTE=Full Time Equivalent

[19] The reform proposals were stalled in the upper house of Parliament which is not controlled by the governing party, and it remains to be seen if they are revived. Although the governing party remains the same there has been a change of leadership, and the financing arrangements are on hold – but not withdrawn.

195. The figures in the Appendix C2 represent only the Government's proposed payment for each student. In addition, under these proposals higher education institutions would have received a fee from each student that would no longer be fixed by the Government. So if this reform were to be implemented the concept of a base level of funding per student would no longer apply. The very much lower level of government grant funding for programmes in "Funding Tier 1" reflects the fact that the Government assumed that higher education institutions would 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

196. Until 2012 the Government set a limit on the number of bachelors students that each institution could recruit in each subject. However, since 2012 student numbers in Australia have been unrestricted[20]. Higher education institutions responded to this change in policy by increasing their recruitment, so much so that student numbers increased substantially in the two years after the change. This has implications for government expenditure since the value of base funding is guaranteed. Although part is met by student fees, the Government commitment amounts to 60% of the per capita cost on average. The Government has been obliged to conclude that it cannot afford such an open-ended commitment, and that is why it proposed to limit the public contribution to base funding, and to allow student fees to rise to compensate.

197. The present arrangements in Australia and the proposed reforms show very clearly the relationship between fees, government grant and student numbers. Student number controls have been removed and cuts in government grant have been announced and are budgeted. To compensate for the cuts in government funding, which arise from the sharp increase in student numbers, the Government proposed to allow student fees to rise. However there is a prospect that these fee increases will not take place and if not then institutions will be faced with a cut in government funding, an increase in student numbers, and no increase in fees to compensate – the consequence will be a reduction in per capita funding, and, many fear, a reduction in quality.

198. For the purpose of this study, and because this is where the lessons are to be learned for Hong Kong, the existing arrangements are described in detail below. However, an important lesson from the Australian experience is that removing student number controls has encouraged higher education institutions to recruit additional students to a level the Government considers unaffordable, and so it has been obliged to propose changes to the financing arrangements to accommodate this.

199. So the present arrangement for determining the base level funding of Australian higher education institutions can be summarised as follows.

> *The funding per student in each price band, 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. The relative amounts of funding for each price group are based on a weighting, which in turn was calculated some years ago as a result of a study. 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*

[20] The derestriction applies to bachelor-level courses. Diplomas, associate degrees and postgraduate places are still regulated (although for postgraduate courses universities can offer an unlimited number of full-fee places)

education in all subjects, to contribute to the university's overheads and to enable a basic level of research to be conducted as well.

200. As discussed above, these arrangements worked well when the Government 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.

Student Fees and Loans in the Australian HE system

201. Students who qualify for a Government subsidised place in Australia (one that receives base funding) can either pay the entire student contribution and receive a 10 per cent discount (was 20 per cent prior to 2012, and legislation passed in 2015 will cut this to zero from 2017) or defer payment of the contribution through a "HECS-HELP" loan. It is possible to defer payment of some of the contribution and pay part upfront. This applies to most undergraduate students and 40 per cent of postgraduate coursework students.

202. A student who does not qualify for HECS-HELP can, in nearly all cases, access a "FEE-HELP" loan instead. FEE-HELP is a Government-administered fee loan that is split into two types – undergraduate (UG) and postgraduate (PG). All loans, HECS-HELP and FEE-HELP, have the same terms and conditions of repayment (income contingent after graduation, collected through the tax system) but undergraduate FEE-HELP loans carry a surcharge of 25 per cent, which, broadly speaking, is intended to cover the Government's cost of borrowing and any non-repayment across the cohort[21]. There is no surcharge for postgraduate FEE-HELP loans, which means they continue to be subsidised.

203. FEE-HELP is a universal entitlement: it is available to all domestic students enrolled in approved higher education providers, regardless of level of qualification or previous qualifications, up to a lifetime maximum of around AU$97,728[22] (around HK$543,000).

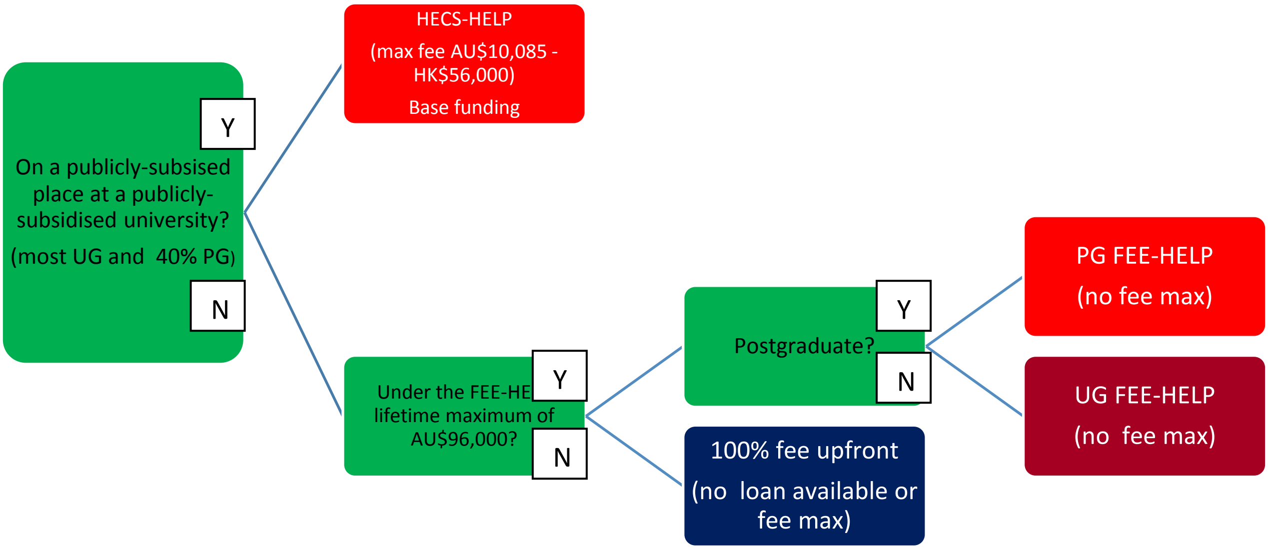
204. If the Government's calculations are correct the outcome is that undergraduate FEE-HELP in Australia is a Government loan system that carries virtually no public subsidy. It allows Government backed fee loans to be extended to all students with repayments on an income-contingent basis. This is a significant part of the Australian loan design.

205. Figure C2 below provides a graphical representation of the Australian system, described above, and shows that virtually every student, whether undergraduate or postgraduate, is able to access a Government fee loan (either subsidised or not) that is repaid on an income-contingent basis. The only students that could not access a loan would be those that had reached their FEE-HELP lifetime maximum loan allowance of AU$97,728.

[21] This is the Government's claim – other informed commentators believe this is based on a serious underestimate of the cost of loans.

[22] This is slightly higher (AU$122,162) for students in medicine, dentistry or veterinary science programmes.

Figure C2: Australian criteria for accessing types of fee loans and public funding



Source: *A comparison of higher education funding in England and Australia: what can we learn? Figure 2* HEPI 2014

The Australian loan system in detail: understanding HECS-HELP and FEE-HELP

206. Table C1 below gives a summary of both HECS-HELP and FEE-HELP. There are HECS-HELP maximums or controls because this is part of the mainstream, subsidised system and these courses / students also attract 'base funding' – which is direct funding for teaching. There are three HECS-HELP maximum levels between AU$6,152 and AU$10,266 (about HK$34,000 to HK$57,000) depending on programme. The ratio of HECS-HELP to fees in base funding currently stands at about 60:40 overall but varies significantly by subject (see Table C2 below). The level of base funding and HECS-HELP is the same for both undergraduate and the 40 per cent of postgraduate courses that attract state support, based on subject.

207. As far as FEE-HELP is concerned, in 2014 around 65,000 places or about 9% of domestic coursework places, were FEE-HELP places (undergraduate and postgraduate); a significant proportion of the overall system. The fee charged by the HE provider is not limited and will usually cover 100 per cent of cost (fees are set according to both cost and market value). There is a lifetime loan allocation of $97,728 (about HK$543,000) to allow students to re-train and re-skill throughout their lifetime.

208. FEE-HELP is slightly different for postgraduate and undergraduate students. Undergraduate FEE-HELP loans carry a surcharge of 25 per cent (not for postgraduate FEE-HELP). The surcharge gets added to the total loan value. This is intended to cover the Government's cost of borrowing and any non-repayment and if so means that the loan is virtually non-subsidised – it is intended to be a non-subsidised Government loan system. This has created a fee loan system, with a lifetime loan allocation, that is intended to have virtually complete cost recovery and carry virtually no cost to Government.

Table C1: comparison of loan design and outcomes for HECS-HELP and FEE-HELP

	HECS-HELP	FEE-HELP
LOAN		
Max loan value (1 year)	AU$6,152 -AU$10,266 (HK$34,000-HK$57,000) (3 bands by subject)	AU$97,728 (HK$534,000) (lifetime maximum)
Average debt on graduation	Approx. AU$32,000 (HK$178,000)	Approx. AU$50,000 [23](HK$178,000)
REPAYMENT		
Earning threshold	AU$53,345 (HK$297,000)	
Repayment rate once over earning threshold	4% - 8% of total earnings	
Interest rate	Zero real interest rate (inflation only)	
Surcharge	0	25% (UG only)
Loan written off after	Death	
OUTCOME		
Loan subsidy (RAB)	25%	25% (PG), 0% (UG)
Average repayment period	8.4 years (HECS-HELP[24])	

Source: Derived from *A comparison of higher education funding in England and Australia: what can we learn? Figure 6* HEPI 2014

209. There is a single repayment system for both HECS-HELP and FEE-HELP that does not vary by loan type, with a high earnings threshold for repayments of AU$53,345 in 2015 (this converts to around HK$297,000).

210. As shown in Table C1, once a graduate crosses the AU$53,345 earnings threshold she pays a percentage of her total earnings, rather than just earnings above the threshold that applies in most income tax systems. Australian graduates pay between 4 per cent and 8 per cent of their total earnings once they are over the threshold. In effect, Australian graduates make relatively large contributions once they cross the earnings threshold and pay back relatively fast as a result.

211. As an example, a graduate earning AU$60,000 per year (HK$333,000) would pay a little over AU$250 (HK$1,400) per month. These repayment terms, as well as the fact that the loan carries no real interest rate, explain why an Australian student will pay off their loan relatively quickly (historically in an average of just 8.4 years, now estimated in about 10). As a result, the Australian system carries a relatively low level of public subsidy on student loans for the Government despite the low rate of interest paid on loans.

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[23] This figure is not explicitly provided by the Australian Government, and is based on a calculation – average undergraduate FEE-HELP loan in 2013 was AU$16,600, and the average programme length was about 3 years – so it should be regarded as a rough figure.

[24] Bear in mind that without any evidence or reason to believe that FEE-HELP graduates earn more, it will take them longer to repay the higher original debt than that incurred by most HECS-HELP debtors.

Implications for the outcomes of the loan system

212. Table C1 above lists the five factors in the design of the Australian loan system: earnings threshold for repayment; repayment rate over earnings threshold; interest rate; surcharge; and write off period (on death in the case of the Australian system). Alongside the total debt of the graduate, it is these factors that affect the outcome of the loan design for both graduates (for repayments) and Government (for subsidies / cost).

213. The undergraduate FEE-HELP part of the system adds a 25 per cent surcharge on loans, which is intended to ensure that there is virtually no public subsidy on these loans. In a system where, before 2012, any excess demand was taken up on the FEE-HELP side whose beneficiaries carried zero public investment from base funding and very little subsidy on loans, it can be seen why the Government is relatively relaxed about the level of loans. With 100 per cent of loan value for non-subsidised FEE-HELP loans sitting on Government books as an asset thanks to the accrual accounting method and a relatively short average repayment period[25] the picture becomes even clearer.

214. FEE-HELP loans have enabled the Australian Government to do two important things that other systems may not be able to afford: first, they offer a fee loan to every student; and second, they offer a lifetime loan allocation, allowing students to re-enter the system and re-train throughout their career.

215. As far as HECS-HELP is concerned, the removal of number controls in 2012, following which there was a 23 per cent growth in this part of the system in the four years from 2009-2013, has confused this picture slightly but not entirely. Given that HECS-HELP loans carry a relatively modest subsidy – estimated by the Government (though disputed by others) to be around 25 per cent - the Government is still more concerned about the increased cost of base funding (60 per cent of course cost) than about the loan debt.

Fee variation & cost recovery

216. Taking medicine and humanities as examples at opposite ends of the cost spectrum, a comparison of the total resource available for teaching in these subjects (Table C2 below) reveals that in humanities there is 36 per cent cost recovery[26] by the state compared to 23 per cent in medicine – not a surprising result given the very different costs of the two disciplines.

[25] See note 21 above

[26] Bear in mind that a small part of the cost recovery calculation relies on an estimate of loan subsidy which cannot be accurately calculated. However, the direct government grant to institutions represents the major element in the cost recovery calculation, and so these figures are reasonable approximations.

Table C2: Comparison of public: private contribution for Humanities and Medical degrees (first degree, undergraduate courses)

		Humanities	Medicine
Private contribution	Max fee level	AU$6,152 (HK34,200)	AU$10,266 (HK57,100)
	Average fee	AU$6,152	AU$10,266
	Average actual contribution (allowing for deaths/default)	**AU$4,535** (HK25,200)	**AU$7,560** (HK42,000)
Public contribution	Direct funding	AU$6,285 (HK34,900)	AU$24,675 (HK137,193)
	Loan subsidy	AU$1,750 (HK9,730)	AU$2,930 (HK16,290)
	Total public contribution	**AU$8,035** (HK44,674) **(64%)**	**AU$27,605** (HK153,483) **(77%)**
Total resource		**AU$12,570** (HK$69,889)	**U$35,165** (HK$195,157)

Source: Derived from *A comparison of higher education funding in England and Australia: what can we learn? Figure 7* HEPI 2014

217. Australia's overall cost recovery is officially around 33 per cent. calculated as follows

- Student contribution to base funding (excluding research) – 44 per cent
- Government subsidy of HECS-HELP 25 per cent[27]
- Student contribution net of government subsidy 33 per cent

218. Table C3 below shows fee variation in Australia in more detail. The three levels of HECS maximums (essentially the fee levels) are AU$6,152 (HK$34,205), AU$8,768 (HK$48,750) and AU$10,266 (HK$57,100), depending on subject. The HECS maximum is set partly by subject cost but also by market value – this is demonstrated by the fact that both medicine and veterinary sciences (both high cost subjects) sit alongside law, economics and accountancy (all high market value subjects) in the highest fee band. In addition to fees there are also eight public funding levels that vary (discussed above) to achieve a particular level of total resource for each subject in higher education funding.

[27] The FEE-HELP surcharge of 25% is intended to cover the Government's cost of providing loans. As FEE-HELP repayment terms are the same as HECS-HELP this is taken to represent the subsidy of HECS-HELP loans. However, it should be noted that there are informed analysts who believe that this 25% figure is a serious understatement of the cost.

Table C3: Australian HECS or fee maxima by subject (summary)

Subject groups	HECS maximum
Medicine, veterinary science, dentistry, law, economics, accounting	**AU$10,266** (HK$57,100)
Science, engineering, allied health, agriculture	**AU$8,768** (HK$48,750)
Education, nursing, humanities, maths, computing, art and design, social studies, languages, performing arts	**AU$6,152** (HK$34,205)

Source: Derived from *A comparison of higher education funding in England and Australia: what can we learn? Figure 5* HEPI 2014

Impact on participation

219. As with other systems with relatively high fees supported by loans repayable on an income contingent basis – England and to a lesser extent the USA and Chile among the systems reported on in this study – participation in Australian higher education is relatively high. Education is free at the point of use and the level of fees does not appear to have put a dampener on participation: indeed the lifting of student number controls in 2012, following which student numbers increased by 23 per cent in four years, suggests that there was substantial latent demand, despite the level of fees.

Summary of replies to the research questions

- Cost recovery and subvention from the public purse
  - The Australian arrangement avoids some of the features that make other income contingent loan arrangements (the English in particular) relatively expensive. There is no forgiveness period (loans remain with the graduate until death); the repayment is calculated on the basis of the entire income of a student once they have passed the earnings threshold rather than just the income above the threshold. And as a result loans are repaid rapidly. Moreover, loans are provided to postgraduate students and undergraduates who would not be eligible for fee loans otherwise, and because these carry a surcharge of 25 per cent in the case of undergraduate students, the loans carry little cost to the Government. So although the precise cost recovery rate cannot be known, it is reasonable to conclude that it is controlled.
  - On average about 44 per cent of the cost of teaching is provided by student fees which are supported by loans, and it has been estimated that the loan subsidy is about 25 per cent. That suggest therefore that on average about 33 per cent of the cost of education is recovered by the Government.
- Fees and fee levels
  - Fees are set by the Government as a proportion of base funding which is calculated as an average level of funding per student. Fee levels range from AU$6,152 (HK$34,205) to AU$10,266 (HK$57,100), depending on subject.
- Differential fees

    - Differential fees are charged depending on subject, with the subjects judged to be in highest demand and which lead to relatively high paid jobs (medical and business/economics related) commanding the highest fees. In addition universities are also free to set fees for full-fee students.

- Higher fees for out of area students
    - Australian higher education institutions are free to charge whatever fees they wish of international students, and have the highest concentration of international students in the world. These pay significantly higher fees than domestic students, contributing significantly to the financing of Australian higher education institutions

- Whether tuition fees are set nationally or at the discretion of individual institutions
    - At present fees are set nationally, but the Government has proposed removing any control over fees. That proposal is currently on hold and has not yet been passed into law.
    - The base grant values of each subject group were originally calculated objectively, and are uprated based on inflation in such a way as to maintain their value in real terms. However, in effect the Government also decides on the adjustment of fees, which is a consequence of the decisions about how much of the objectively set base funding is to be provided by government grant and what proportion is to be provided by tuition fees.

- How tuition fees paid by students are distributed between institutions and government
    - Tuition fees are part of the base funding all of which is received by institutions.

- Fairness and affordability: what evidence there is about the impact on participation of different funding regimes and in particular participation by students from disadvantaged backgrounds
    - What evidence there is suggests that tuition fees, supported by income contingent loans which ensure that higher education is free at the point of use, have not adversely impacted participation.

- Support (e.g. loans) available for the payment of tuition fees
    - Virtually all students, undergraduate and postgraduate, have access to tuition fee loans, though some are subsidised and some are not.

- Private higher education
    - HECS-HELP is only available to students attending a Commonwealth supported institution, and under the existing arrangements Commonwealth supported places are only available to public higher education institutions and a very small number of others (three overseas universities and one specialist private University of Divinity). The reforms proposed by the Government but now on hold would potentially extend public funding to 131 other private institutions of tertiary education for bachelors degree level study. FEE-HELP on the other hand is available to virtually all students in virtually all institutions.

- Source of capital and its repayment

- The Government provides loans direct to students (or rather pays fees direct to universities on their behalf), and the student repays the government through the tax system once they are working.

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Private communications DET

Appendix C1: Example of allocation of programmes to funding clusters

Funding cluster 3 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[1]
		Librarianship, Information Management and Curatorial Studies
		Sport and Recreation
		Other Society and Culture

Appendix C2: Proposed new funding tiers and levels of Government grant

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

ANNEX D: FUNDING HIGHER EDUCATION IN THE USA

Introduction

220. In the USA, financing of the public higher education system is primarily a state and local government responsibility; the federal government provides very little financial support for the operations of institutions. By contrast, the primary federal role in American higher education is to provide the majority of funding for student financial assistance, including student loans, and to be the primary source of funding for university-based research in a broad range of fields. Although education, including higher education is primarily a state responsibility – and so there are in principle 50 different higher education systems - in fact there is a very great deal of commonality across the various states – and data that are collected nationally – so it is substantially possible to give an account of the system for financing higher education in the USA as a whole.

221. This section describes how the overall system of higher education is financed, tuition fees and how they are set and the provision of student financial aid including student loans. The answers in many cases are provided for all states in the USA and the federal role, but in selected cases, the situation in individual states is described in greater detail.

The financing of higher education

222. In the USA, state governments spent more than US$80 billion (HK$622 billion) in 2014-15 on higher education (including about US$10 billion (HK$78 billion) in student grants). Local governments (below state level) spent another US$10 billion in 2014-15, almost entirely in the form of operating support for community colleges. The federal government spent about $140 billion (HK$1,100 billion) in 2014-15, including roughly $70 billion (HK$550 billion) in various forms of non-repayable aid to students, $20 billion (HK$156 billion) in student loan interest and default subsidies and roughly $50 billion (HK$390 billion) in support of university-based research[28].

223. While the amount of public funds spent in support of American higher education is impressive, in an international context the USA provides an average level of public funding when compared to many other countries. According to the OECD, its member countries spent on average about 1.2 per cent of GDP in public funds for higher education in 2012, while the US share of GDP was 1.4 per cent of GDP. By contrast private spending on higher education was also 1.4 per cent, representing one of the largest shares of GDP among OECD countries. Taken together, the US spent 2.8 per cent of GDP on higher education in 2012, the largest share of any OECD country.

Tuition Fees

224. In the terminology adopted in the USA, ‘tuition’ refers to tuition fees, and ‘fees’ refers to charges levied in respect of other costs other than those for accommodation and food (which are referred to as room and board charges). In this report the term ‘tuition fees’ and ‘other fees’ are used to differentiate these two expenditures.

225. As previously noted, the primary responsibility for funding public higher education lies with the states (and local government in the case of community colleges). Largely as a result of this historical arrangement, the federal government does not have a role in the setting of tuition fees and other charges at public institutions. Also in almost all cases, the boards or other officials of private institutions are responsible for setting tuition fees and other charges of the institutions they represent.

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[28] Author’s estimates based on College Board, Trends in Student Aid, and National Science Foundation, Federal Support for Research and Development

226. There are a wide range of arrangements between States regarding who is responsible for setting tuition fees. In a majority of states in 2010-11 state officials – either as a higher education coordinating board or a higher education funding agency - played a primary role in setting tuition fees. By contrast, in 2010-11 state legislatures set tuition fees in only 3 states and in only 10 states did public institutions have the primary responsibility for setting their own tuition fees, and in most of these states, the maximum amounts that institutions could charge were capped by state officials. By contrast, in most states, institutional officials are primarily responsible for setting room and board charges and mandatory fee levels for items such as laboratories or athletics fees.

227. There is also wide diversity among the states regarding the basis on which tuition fees are set. According to the same 2010-2011 survey, in most states tuition fees are set primarily on the basis of meeting a percentage of the costs of instruction and frequently in the context of what peer institutions in other states charge their students. While a majority of states reported that as a philosophy they try to keep tuition fees low or moderate, tuition fees are set at a low level in a distinct minority of states. A few states have started to move towards basing tuition fees on a general measure of ability to pay such as GDP per capita or median family income. Virginia is an example of a state that now bases its tuition fees on the ability of families to pay.

228. So there are four broad approaches to setting tuition fees:

- Setting tuition fees at low levels not relating to the costs of provision
- Setting tuition fees in relation to ability of the average family to pay those fees
- Setting tuition fees in relation to the costs of providing education
- Allowing institutions to set their tuition fees. In most such states institutions are limited to setting tuition fees within a specified range, but in a minority of these states, tuition fee setting is deregulated.

229. In the case of most public systems institutions retain all the tuition fees and other charges (for private institutions, there is no question about this). In 2010-11, more than two-thirds of states reported that public institutions in their state retain all the tuition and other fees that their students are charged.

230. But there a number of notable exceptions to this general rule. For example, community colleges in the State of California do not retain the fees that their students pay. All of these funds go to the state which then has responsibility for reallocating them between the community colleges. This arrangement could affect the willingness of California community colleges to grow if tuition fee revenues do not follow. Massachusetts is another interesting example of the financial relationship that can exist between the state and public institutions in that the state collects the tuition fee revenues but the institutions retain the other fees they charge, which not surprisingly have grown much faster than tuition fees over time

Fee levels

231. As Table D1 below indicates, the average tuition and other fees at public four-year institutions in the US were roughly US$9,400 (HK$73,000) in 2015-16, while for public two years institutions the average tuition and other fees were US$3,400 (HK$26,500) in 2015-16. When room and board charges are included, the total charges for public four-year institutions were approximately US$19,500 (HK$152,000).

Table D1: average tuition and other fee levels

	Tuition and Fees in 2015 Dollars						Tuition and Fees and Room and Board in 2015 Dollars			
	Private Nonprofit Four-Year	Five-Year % Change	Public Four-Year	Five-Year % Change	Public Two-Year	Five-Year % Change	Private Nonprofit Four-Year	Five-Year % Change	Public Four-Year	Five-Year % Change
1975-76	$10,088		$2,387		$1,079		$16,213		$7,833	
1980-81	$10,438	3%	$2,320	–3%	$1,128	5%	$16,143	0%	$7,362	–6%
1985-86	$13,551	30%	$2,918	26%	$1,419	26%	$19,708	22%	$8,543	16%
1990-91	$17,094	26%	$3,492	20%	$1,658	17%	$24,663	25%	$9,286	9%
1995-96	$19,117	12%	$4,399	26%	$2,081	26%	$27,202	10%	$10,552	14%
2000-01	$22,197	16%	$4,845	10%	$2,268	9%	$30,716	13%	$11,655	10%
2005-06	$25,624	15%	$6,708	38%	$2,665	18%	$35,106	14%	$14,797	27%
2010-11	$29,300	14%	$8,351	24%	$3,002	13%	$39,918	14%	$17,710	20%
2015-16	$32,405	11%	$9,410	13%	$3,435	14%	$43,921	10%	$19,548	10%

Source: *Trends in College Pricing* College Board, 2015

232. One way to gauge these tuition and other fee levels is to compare these to measures of families' ability to pay these charges. To answer this question, Table D2 below shows tuition and other fees and tuition, other fees, room and board from 1975-76 through 2015-2015 (as indicated in Table D1 above) as a percentage of GDP per capita in the relevant years. What this table indicates is that college charges in the USA fell relative to GDP per capita in the second half of the 1970s (a period of high inflation and reasonable economic growth) but have grown significantly since then, reflecting the relatively rapid growth in college charges over the last three decades.

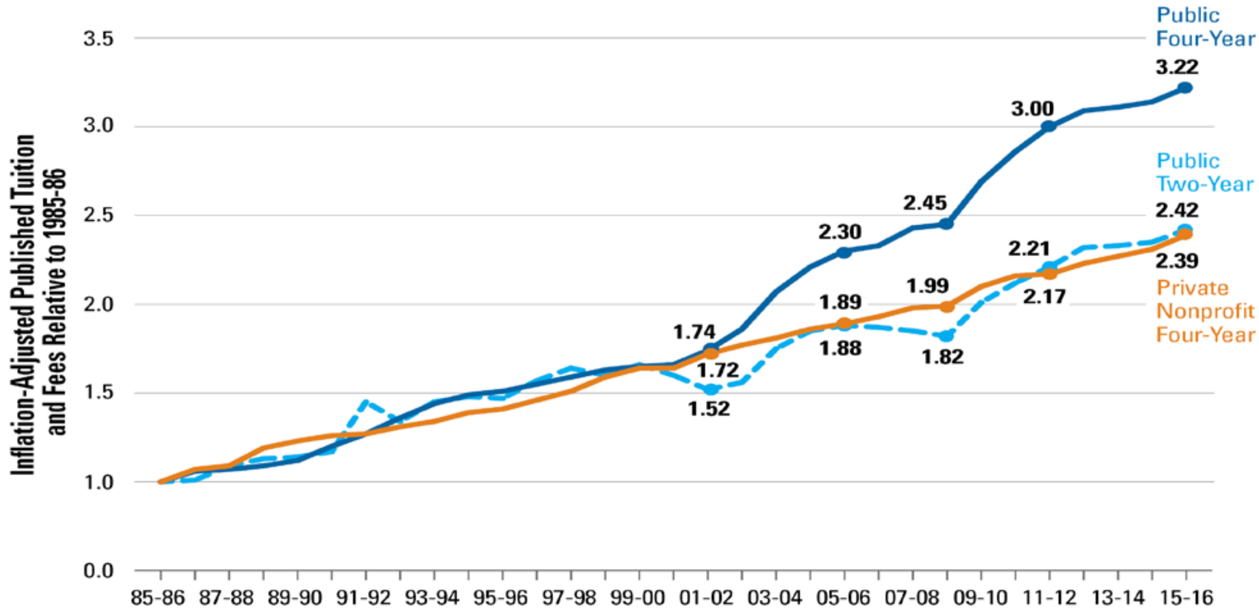
Table D2: Student charges as a percentage of GDP per capita

	Student Charges as a Percentage of GDP per Capita 1975-76 to 2015-16				
	Tuition and Fees			Tuition and Fees and Room and Board	
	Private 4Yr	Public 4Yr	Public 2Yr	Private 4Yr	Public 4Yr
1975-76	41%	10%	4%	66%	32%
1980-81	37%	8%	4%	57%	26%
1985-86	43%	9%	4%	62%	27%
1990-91	48%	10%	5%	69%	26%
1995-96	50%	12%	5%	72%	28%
2000-01	50%	11%	5%	69%	26%
2005-06	53%	14%	6%	73%	31%
2010-11	61%	17%	6%	83%	37%
2015-16	64%	18%	7%	86%	38%

Source: Author's Estimates

233. Another way to look at growth over time is to adjust prices for inflation, as in Figure D1 below.

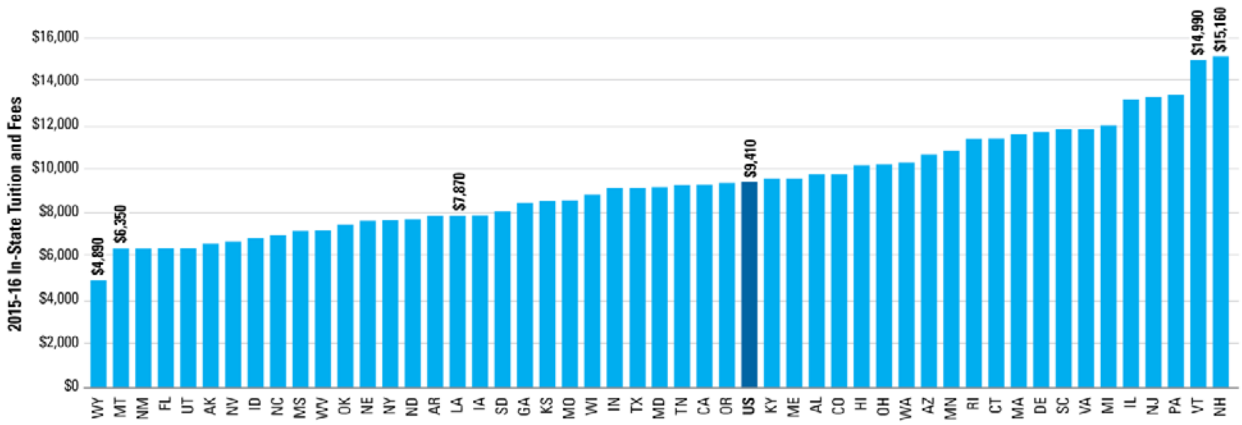
Figure D1: Fee growth over time, inflation adjusted

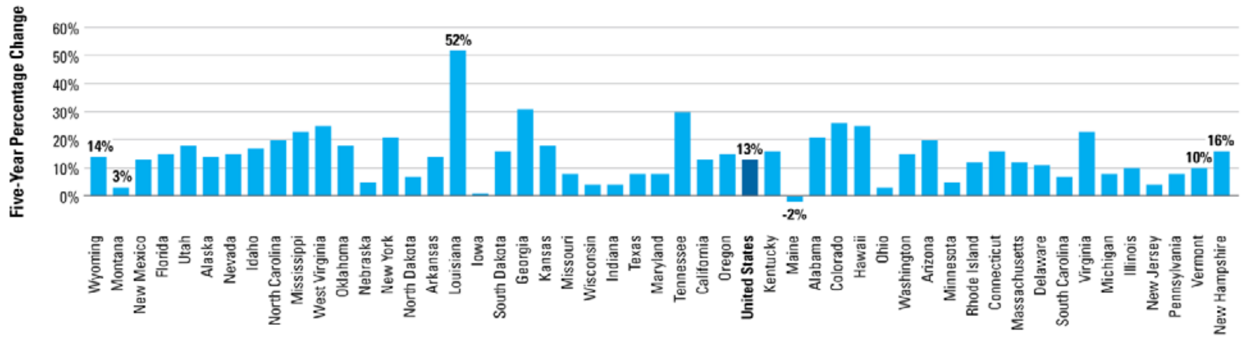


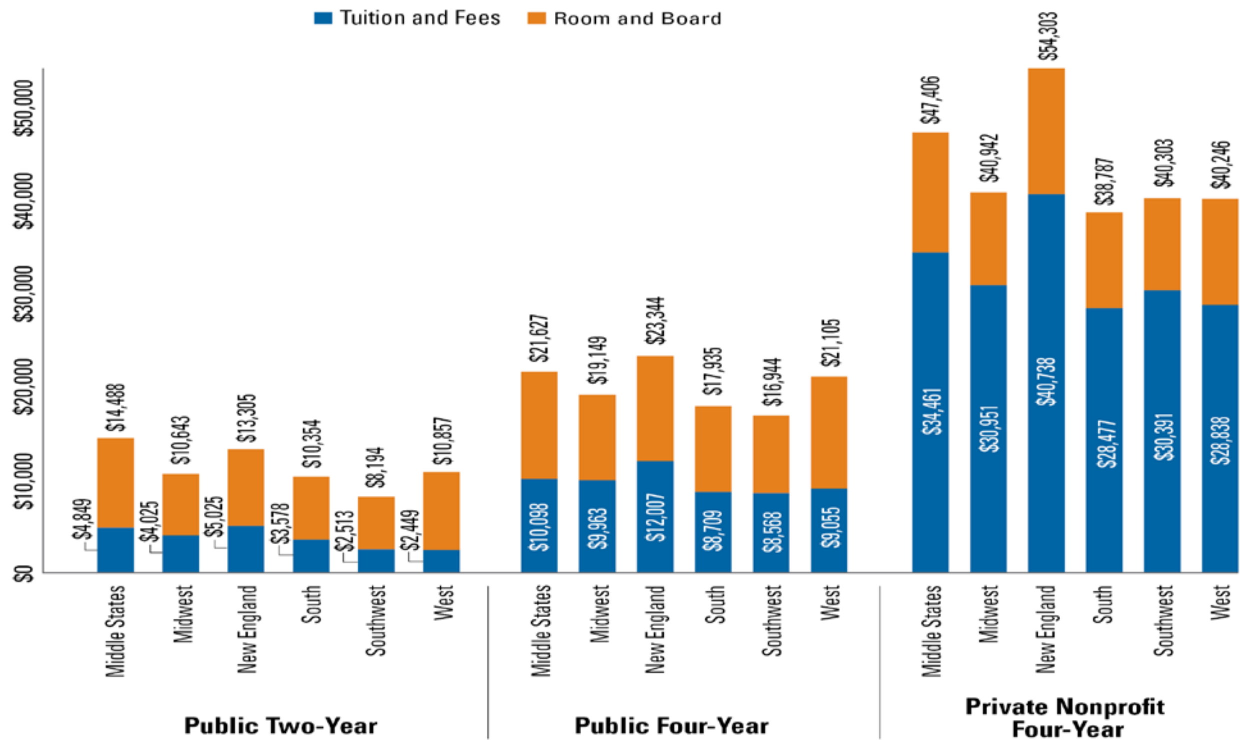
Source: *Trends in College Pricing* College Board, 2015

234. Tuition and other fees and other charges at public institutions vary considerably by state and by region, as Figures D2-D4 below show.

Figures D2-D4: Variation in fees and charges at public institutions







Source: *Trends in College Pricing* College Board, 2015

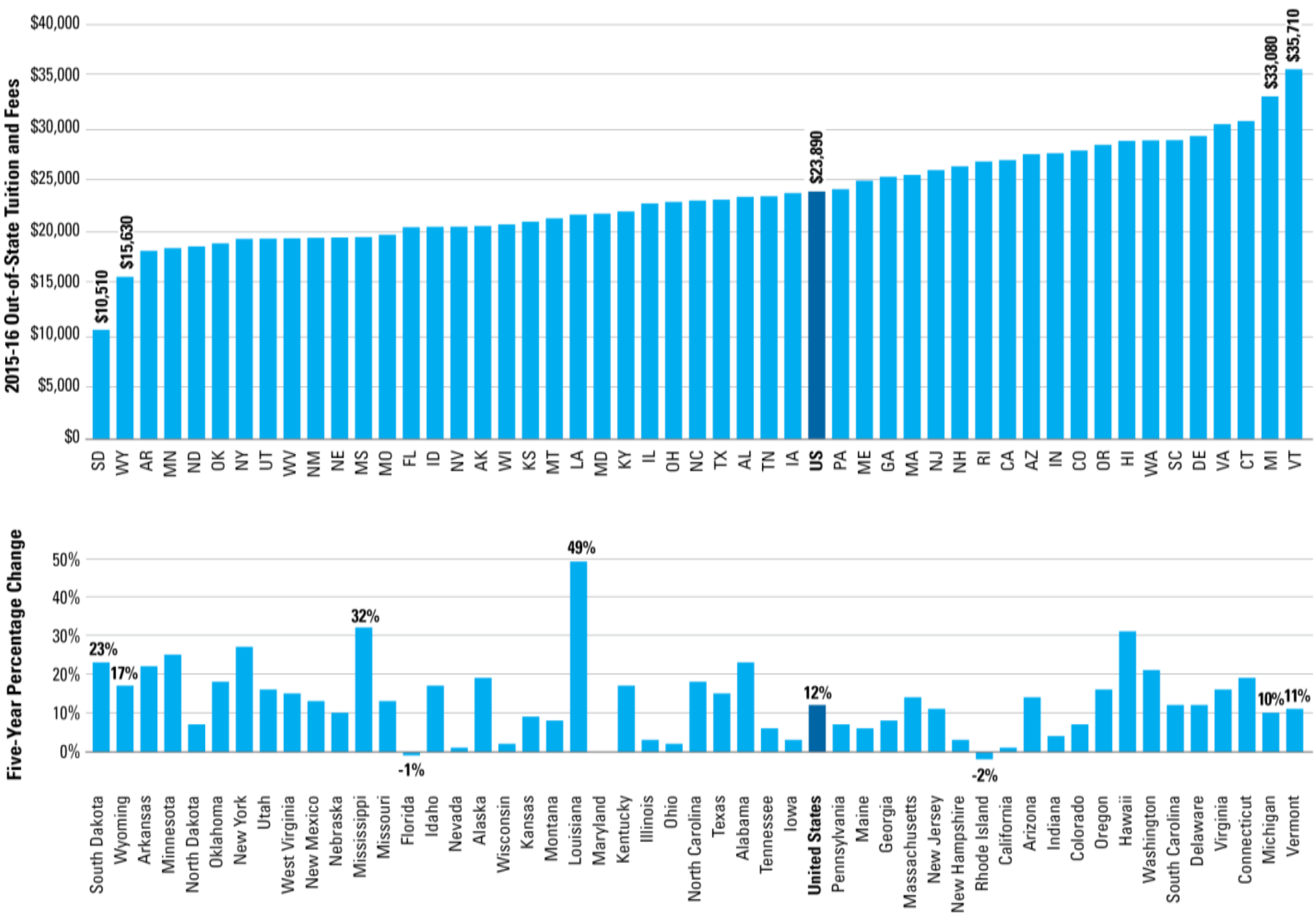
235. Public institutions also vary widely in whether differential fees are charged within each state, although certain general rules apply. In virtually all states, tuition and other fees vary by level of study with graduate and professional school programmes almost always charging more than undergraduate

programmes. A 2010-11 survey of states indicated the factors that are used to differentiate tuition fees and the number of states concerned:

- Programmatic (varies by major or course) (28 states)
- On-site or classroom based instruction/Off-site or distance education (26 states)
- Credit/Non-credit (24 states)
- Lower division/Upper division (15 states)
- Credit hours beyond a specific number (e.g., credit hours accumulated above 140 are charged at a higher rate) (15 states)
- In-district/Out-of-district (two-year schools only) (13 states); and
- Cohort-based tuition fee (Fixed rate for a cohort of entering freshmen for some specified period of time) (11 states).

236. Public institutions in virtually all states in the USA charge higher fees for students who do not reside in the state and for students from other countries. As in many other regards, states vary widely in how much they charge related to the full costs of instruction. Figures D5-D6 below indicate the average out-of-state charges in each state in 2015-16 and how fast those charges increased over the previous five years.

Figures D5-D6: average out-of-state charges, and changes over the previous five years.



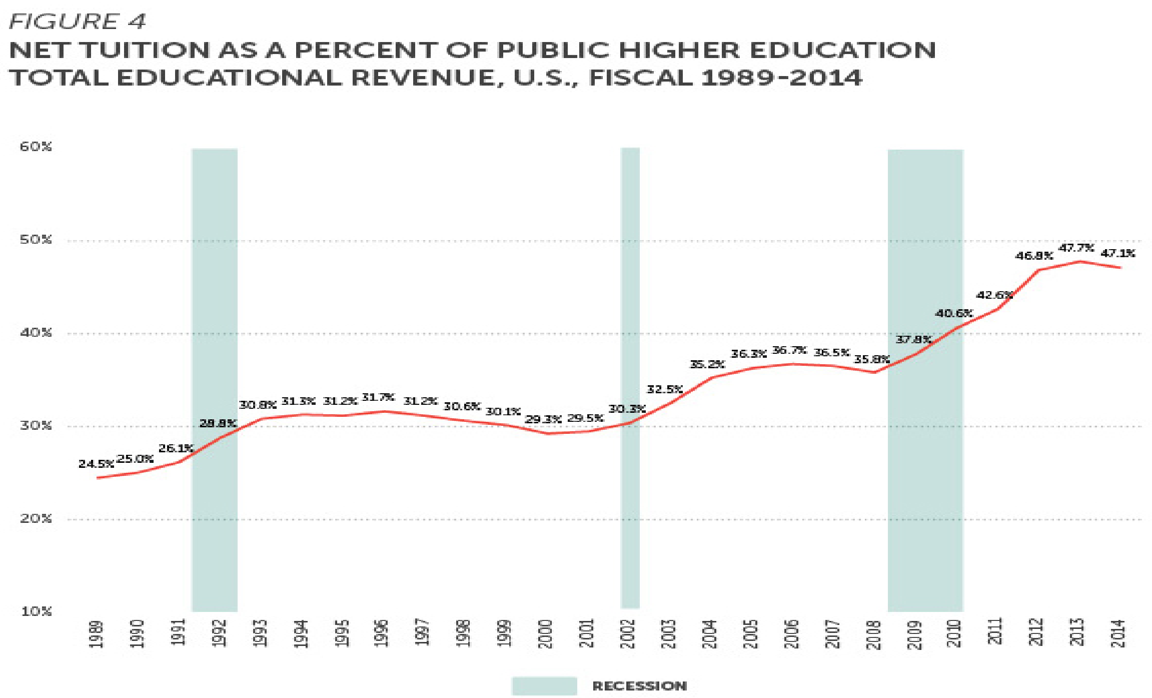
Source: *Trends in College Pricing* College Board, 2015

Cost recovery

237. In the USA, the cost recovery rate is defined as the tuition fee revenues related to public institutions (net of student grant aid from states and institutions used to help pay those tuitions) divided by the sum of net tuition revenues and state and local funding of public institutions.[29] Note that this definition only takes account of direct state and local support of institutions and state and institutional student aid that offsets tuition fees that would otherwise be paid by students and their families. It does not take account the costs to the federal government of non-repayable grants to students nor the cost of loan subsidies in the federal student loan programmes.

238. On a national basis, the share of public higher education in the USA paid for by students has increased dramatically over the past three decades. As Figure D7, copied from Figure 4 of the State Higher Education Executive Officers (SHEEO) report "State Higher Education Finance, FY 2014" demonstrates, on this definition, cost recovery for all states increased from roughly one-quarter in 1989 to nearly one-half in 2014. Among the reasons for this increase are the fact that the student share as reflected by net tuition revenues tends to increase more quickly in recessions when state government funds contract and public sector enrolments tend to increase (shown in the shaded areas below). It is also important to note that the figures below include tuition fees for out-of-state and international students which add perhaps as much as 10 percentage points of total fee income.

Figure D7: Fees relative to total higher education income



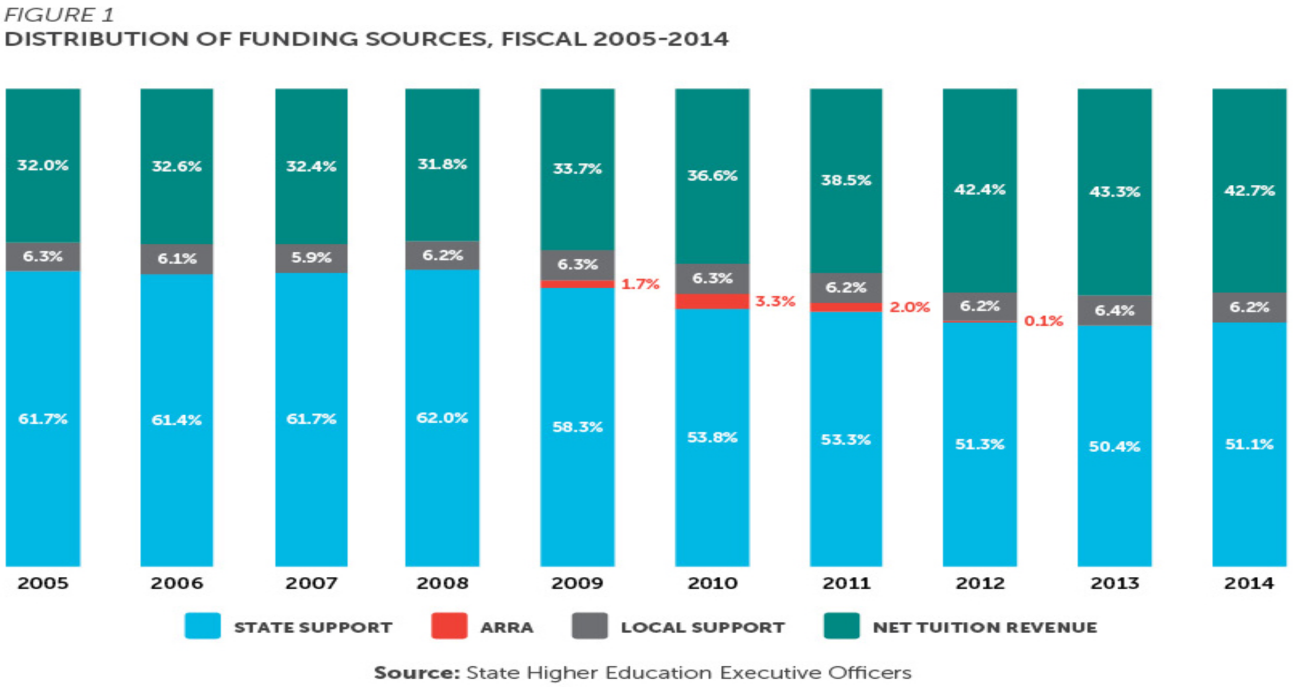
NOTE: Net tuition revenue used for capital debt service is included in net tuition revenue, but excluded from total educational revenue in calculating the above figures.
SOURCE: State Higher Education Executive Officers

239. Figure D8 below, copied from Figure 1 of "State Higher Education Finance, FY 2014" shows how public support for public institutions was divided between state and local governments between 2005 and 2014. As the chart shows, the lion's share of direct public funding for public higher education in

[29] The State Higher Education Executive Officers (SHEEO) organization has tracked this cost recovery figure for a number of decades.

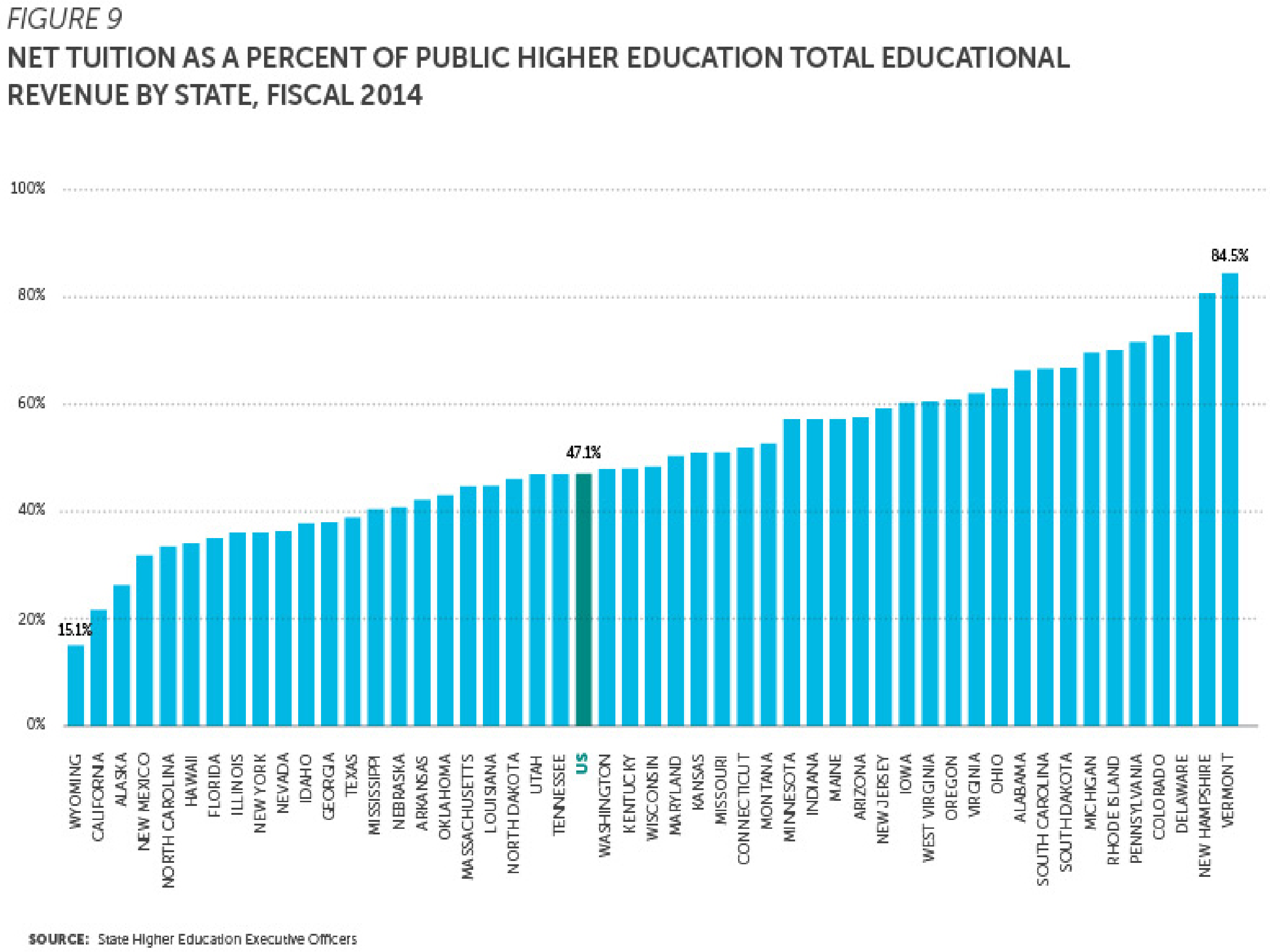
the USA is provided by state governments; the much lower figure for local government funding is almost totally in support of community colleges. It is also the case that the shares of state and local funding have stayed relatively constant over an extended period of time.

Figure D8: Sources of funding for HE institutions



240. On this definition of cost recovery, cost recovery from students and parents varies widely across the states as Figure D9 below indicates, copied from Figure 9 of "State Higher Education Finance, FY 2014 ". While the average cost recovery rate in 2014 was 47 per cent, it ranged from as low as 15 per cent in Wyoming to as high as 85 per cent in Vermont. As noted above, the calculation of cost recovery reported here does not take into account the cost to the public purse of the grant payments to students made by the federal government (about US$80 billion per year) nor of subsidies provided by the federal government take each element of the strategy for that structure and identify each element of that organisational structure and identify the optimal manpower strategy required to implement that element successfully. In the range of student and parent loans that it provides or sponsors, estimated at US$20 billion per year. [If these were included in the calculation then the cost recovery percentage would reduce considerably, probably to the mid to high 20s.]

Figure D9: Tuition fees relative to total revenue

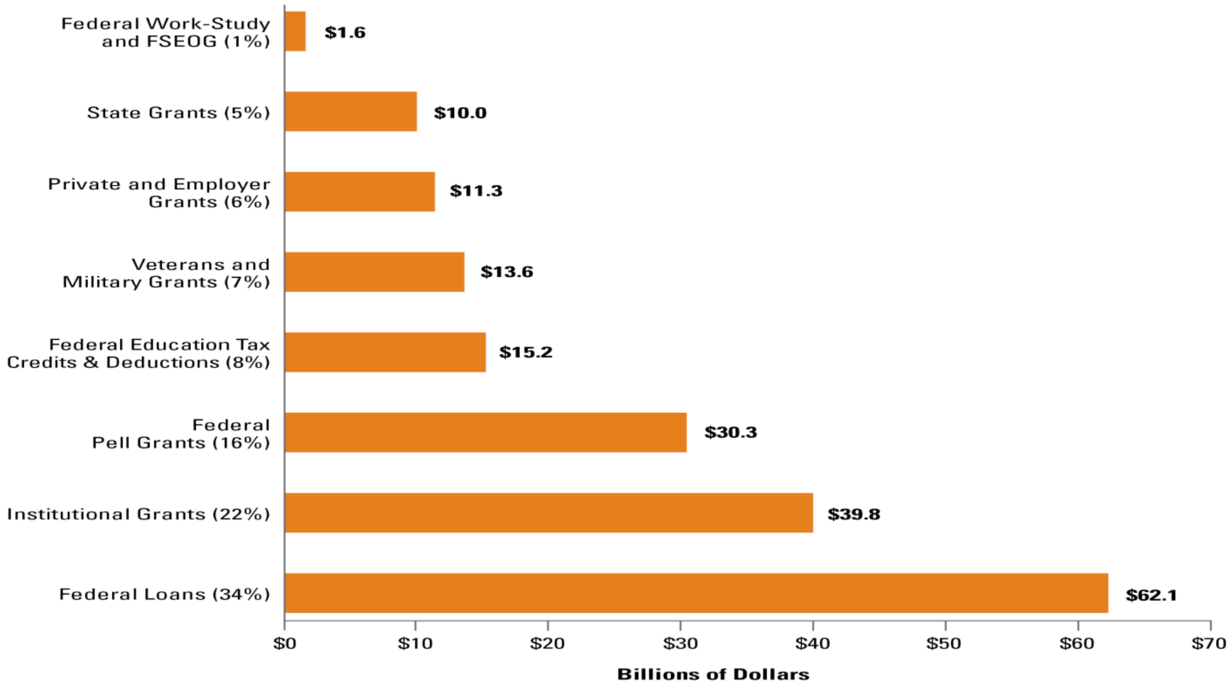


Support (e.g. loans) available for the payment of tuition fees

241. Student financial aid has played a critical role in the financing and in the remarkable growth of higher education in the USA over the past half century. Figures D10 and D11, below, show the distribution of student financial aid for undergraduates, by type of aid in 2014-15, and the growth of all types of student financial aid from 1994-95 to 2014-15. Figures D10 and D11 also confirm that the USA has invested heavily in various forms of non-repayable aid and loans as means of supporting students.[30]

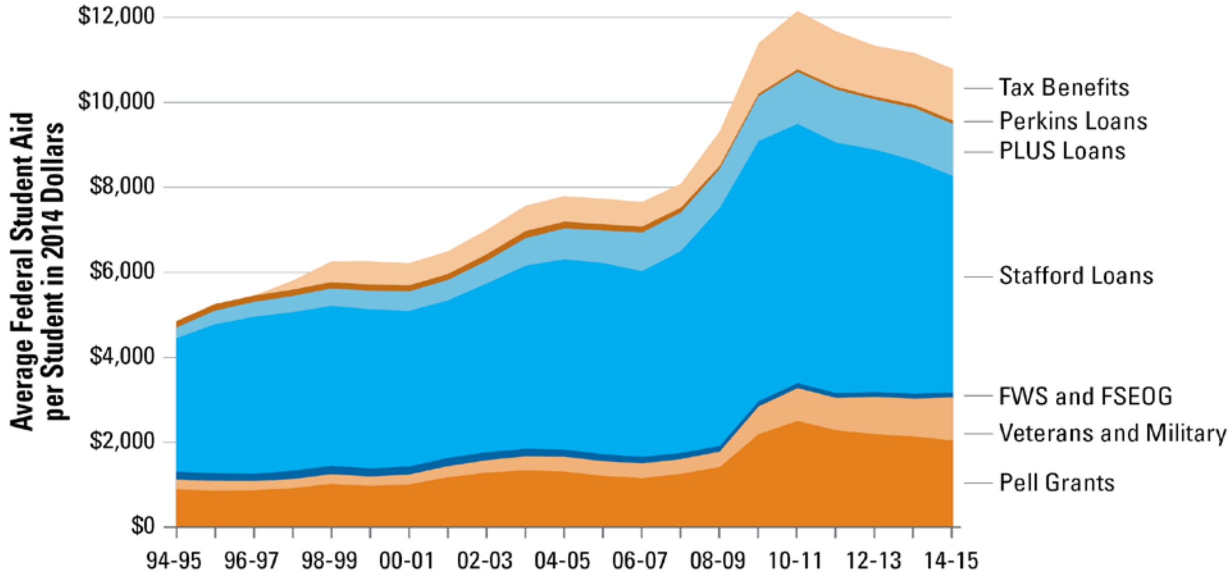
[30] In terms of terminology, PELL grants are the primary government grant programme for undergraduates in the US. Eligibility is means-tested and the grants are basically awarded as a voucher. FWS are Federal Work Study grants and FSEOG are a supplemental grant programme. In both programmes, the federal government distributes funds to institutions which in turn make awards to students. Stafford loans are subsidized and unsubsidized federal student loans for eligible students to help cover the cost of higher education. The *Federal Perkins Loan* Program provides low-*interest* federal student loans for undergraduate and graduate students with exceptional *financial need*. PLUS loans are federally sponsored loans for parents.

Figure D10: Financial Aid for Undergraduate Students, 2014-15



Source: College Board, Trends in Student Aid 2014

Figure D11: Sources of Financial Aid for Undergraduate Students, trends



Source: *Trends in Student Aid* College Board, 2014

Non-Repayable Aid

242. The large commitment to non-repayable aid in the USA has come in waves. The first wave began in 1944 when the GI Bill was first enacted that provided grants to veterans to help them pay for a broad range of tertiary education. The second wave began in 1965 with the enactment of the major federal higher education legislation which included a grant programme in which the federal government provided funds to institutions to award means-tested grants to their students. This grant programme was then overshadowed by the enactment in 1972 of a Basic Grants programme (since renamed Pell Grants in honour of its major legislative sponsor) which provides voucher-like assistance

to all eligible students. The third wave began in 1997 with the enactment of several tuition tax credits which give families partial tax relief for the tuition fees they pay on behalf of their children.

243. Annual federal expenditures for these three activities were roughly $60 billion (HK$467 billion) in 2014-15. By contrast, states spent about $10 billion (HK$78 billion) on student grants in 2014-15, which was between 10-15 per cent of what states spent in support of public institutions. Altogether, public spending on non-repayable aid in 2014-15 was roughly $70 billion (HK$545 billion), which is nearly as much as states and localities spent in support of institutions in that year. Figure D10 also confirms that institutions themselves invest a lot in student financial aid. In 2014-15, the chart shows institutions provided nearly $40 billion (HK$311 billion) in discounts and other forms of non-repayable aid, an amount which is more than half of what governments provide in non-repayable aid.

Student Loans

244. The charts, above, confirm that student loans have played an increasingly significantly role in funding higher education in the USA over the past half century. Annual student loan volume now exceeds $100 billion (HK$778 billion) and total outstanding debt exceeds $1 trillion (HK$7.8 trillion), a widely-publicized fact that has become a major policy concern. The first major federal programme was established in 1965 as a bank-based programme in which the federal government paid the interest while borrowers remained in school and a combination of federal and state guarantees insulated private lenders against default loss. In 2009 the main federal student loan programme was fully transformed into one in which the federal government directly provides all the student loan capital and repayments flow back to the federal government (although not through the tax system).

245. It is also worth noting that privately-funded, non-guaranteed loans became a major source of student loans in the 1990s and 2000s as federally-sponsored loans could not fully cover the growing tuition fees and other charges. These private loans greatly added to the student loan burden in past decades and a number of problems with them including very high interest rates and lack of effective consumer protection has led to their being sharply cut back recently.

246. In their fifty years of existence, many of the details of the federal student loan programmes have changed a number of times. What follows is a brief summary of key features.

Initial Payment of Fees.

247. Based on international experience, it is important to differentiate the source of loan capital from the financing of the tuition fees themselves. In the USA, tuition fees at both public and private institutions are paid privately by students and their families who then have the option of borrowing to help pay these tuition fees plus they are eligible to borrow relatively large amounts for living expenses. This is in contrast to arrangements in some other countries – most notably Australia and England – where the government initially finances the tuition fees for all public sector students who are then obligated to repay these loans through the tax system after they complete their education.

Interest rates.

248. In the federal student loan programme, the government has set interest rates at levels below what the market would otherwise charge for this type of unsecured loan. For privately financed federal loans, there was an additional federal payment to compensate lenders for the difference with market rates. But with the shift to federal government providing the loan capital, these special allowance payments no longer apply to new loans.

Government payment of interest.

249. The initial programme provided that the government would pay the interest while the borrower remained in school. These government in-school interest payments represented the major subsidy in the programme, but over time the share of federal student loans in which the federal government pays the interest during the in-school period has sharply declined, and with it the level of government subsidy has declined too.

Repayment Provisions.

250. Traditionally, all federal student loans in the US were repaid on an amortized basis similar to mortgages, but in 1994 an option was provided for borrowers to repay on the basis of their incomes once they completed their education. The income-contingent repayment provisions have been changed several times over the intervening two decades, and now a growing percentage of borrowers are repaying their loans on an income-contingent basis.

Student Loan Servicing.

251. In the USA, the federal government has never been directly involved in the servicing of student loans. With privately financed loans, the loan holders or private servicers were responsible for loan servicing and collection. But interestingly even with federally-financed loans and those with income-contingent repayment, the federal government does not collect directly. Instead, private entities are contracted to service the loans and relevant income information from the tax system is shared with private servicers in a somewhat awkward arrangement.

Default Rates.

252. The rates of default in the federal student loan programmes have fluctuated over time. There is a base loss rate of roughly 5 to 10 per cent but these rates tend to increase during recessions when borrowers have more trouble keeping up with their repayment obligations. The rates are also much higher for certain categories of borrowers, particularly those who attend for-profit institutions with short programmes of study: default rates for these borrowers can easily exceed 15 per cent or more. So default rates tend to be higher when problematic categories of borrowers account for a larger proportion of all borrowing.

Subsidy Levels.

253. The methodology for calculating subsidy levels in the federal student loan programmes has changed over time. Initially, the federal government accounted for student loan expenses on a cash basis and the payment of in-school interest, default payments, and administrative costs were registered in the year they were made. But in 1990, the federal budget rules were changed and subsidy levels for all kinds of federal loans were then to be calculated based on the estimated present value of the subsidies over the life of the loan (called the RAB cost in England). Based on this methodology, subsidy levels for federal student loans were 30 per cent or more in the 1990s but the shift to direct federal lending beginning in 1994 and the decline in the share of loans that carry an in-school interest subsidy has reduced the estimated subsidy level to 20 per cent or less, and defaults now represent the major federal cost of the federal student loans.

Evidence about the impact of different arrangements on participation, in particular participation by students from disadvantaged backgrounds

254. The question of the extent to which tuition fees and student financial aid affects the participation of students in higher education is a very controversial one for which no definitive and conclusive

answer exists. This is also is true for the question of the impact of tuition fees and student financial aid on providing greater access to disadvantaged students.

255. But certain observations can be made regarding correlations. Perhaps most important, participation rates in the USA have increased dramatically over the past three decades at the same time that prices have increased at twice the rates of inflation, in both the public and private sectors. This would suggest that higher prices *per se* do not lead to reduced higher education participation. But this observation must be tempered by a realization that a number of other factors come into play to help explain patterns of participation, including the supply effect of increased tuition fees (more seats can be offered when prices are increased), the availability of student allowances and loans, and a number of other important factors.

256. It is also worth noting that the non-completion rate in the USA is estimated by the OECD to be among the highest among member states. What relationship if any there is between that fact and the arrangements for higher education financing is not known.

257. It is also important to note that while participation rates have increased for all groups of students, the gap between rich and poor students in the USA remains roughly as wide as it was when the federal student aid programmes were created a half century ago. Most countries face these chronic equity gaps and increasing access for the disadvantaged groups of students remains a major challenge around the world.

Private higher education

258. Private, non-profit higher education has played a much more prominent role in the U.S. than in most other countries. The first universities in the US were private non-profit and as recently as 1950, half of all enrolments were in private, non-profit institutions. Much of the expansion since the end of the Second World War was in the public sector including community colleges which now account for one-third of all higher education enrolments. As a result of this shift over time, private, non-profit institutions now account for one-fifth or less of higher education enrolments. Students enrolled in these institutions are eligible for the full range of federal student aid programmes including Pell grants and loans and a good argument can be made that the sector share would have dropped even more rapidly if students attending these institutions had not been eligible for federal aid.

259. For-profit institutions have existed in the US for more than a century although their numbers and size have varied substantially over time. The vitality of this sector has depended somewhat critically on the eligibility of their students to receive federal student financial aid. There was spike in enrolments in for-profit institutions after the Second World War as veterans were able to use their GI Bill benefits at a broad range of institutions. These enrolments then dropped until federal legislation in 1972 made students enrolling at proprietary (for-profit) institutions eligible for the full range of grants and loans. Since then, for-profit enrolments have crested and fallen several times as extensive usage of federal student aid was followed by restricted eligibility for many of these institutions based on excessively high levels of defaults on student loans and evidence of bad business practices. Currently, for-profit institutions are under intense federal scrutiny and enrolments have dropped once again.

Summary of Responses to the Research Questions

- Cost recovery and subvention from the public purse
    - The national cost recovery rate for public institutions in all states was 47 per cent in

2014-15, varying from a low 0f 15 per cent in Montana to a high of 85 per cent in Vermont. This calculation does not take into account federal grants to students and loan subsidies which if included in the calculation would sharply reduce the rate.

- Fees and fee levels
  - The average tuition and other fees at public four-year institutions in the USA were roughly US$9,400 (HK$73,000) in 2015-16, while for public two years institutions the average tuition and other fees were US$3,400 (HK$26,000) in 2015-16. When room and board charges are included, the total charges for public four-year institutions were approximately US$19, 500 (HK$152,000). When stated in terms of a percentage of GDP per capita, public sector tuition levels are in the range of 7 to 18 percent. Private sector tuition fee levels are generally higher than those in the public sector.

- Differential fees
  - Across the states, public institutions vary widely in whether differential fees are charged, but certain general rules apply. In virtually all states, tuition and other fees vary by level of study with graduate and professional school programmes almost always charging more than undergraduate programmes. But in a number of states, fees are further differentiated based on various other criteria, the most significant being by programme discipline.

- Higher fees for out of area students
  - Public institutions in virtually all states in the US charge higher fees for students who do not reside in the state and for students from other countries. As in many other regards, states vary widely in how much they charge related to the full costs of instruction.

- Whether tuition fees are set nationally or whether they are set at the discretion of individual institutions
  - In most states, state officials – either as a higher education coordinating board or a higher education funding agency - play a primary role in setting tuition fees. By contrast, state legislatures set tuition fees in a small number of states. Public institutional officials have primary responsibility for setting tuition fees in roughly one-fifth of states; in most of these, the maximum amount that institutions can charge are capped by state officials. By contrast, in most states institutional officials are primarily responsible for setting room and board charges and mandatory fee levels for items such as laboratories or athletics fees.

- How tuition fees paid by students are distributed between institutions and the Government

- Virtually all private institutions retain all the tuition and mandatory fees that they charge their students. For the most part, this is also true for public higher education institutions with more than two-thirds of states reporting that public institutions in their state retain all the tuition and other fees that their students are charged, although there are some notable exceptions to this rule.

- Fairness and affordability: what evidence there is about the impact on participation of the funding regime, and in particular participation by students from disadvantaged backgrounds
  - As with other jurisdictions studied with high fee, participation rates are high in the USA, though other environmental factors (such as the wide availability of loans and means-tested grants) mean that care needs to be taken in interpreting this fact. And the high non-completion rate raises concerns about the impact of student finance arrangements on academic success, but the relationship between this and funding regimes has not been fully researched.

- Support (e.g. loans) available for the payment of tuition fees
  - In the USA, there has been a large scale reliance on a broad range of student financial support including a variety of non-repayable aid and student loans. The details on student financial aid are provided above.

- Private higher education – and in particular if student loans available to private HE students
  - Private, non-profit higher education has played a much more prominent role in the U.S. than in most other countries. While these institutions receive little directly in the way of public support, students enrolled in these institutions are eligible for the full range of federal student aid programmes including Pell grants and loans.
  - For-profit institutions have existed in the US for more than a century although their numbers and size have varied substantially over time. The vitality of this sector has depended somewhat critically on the eligibility of their students to receive federal student financial aid.

- Source of capital and its repayment
  - The Government provides capital finance and contracts banks and other third party bodies to administer loans on its behalf.

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ANNEX E: FUNDING HIGHER EDUCATION INSTITUTIONS IN GERMANY

Introduction

Background

260. Despite Germany's wealth, higher education is chronically underfunded and making additional funds available for higher education is politically difficult. Therefore, the introduction of tuition fees is a potentially powerful tool to raise additional funds, particularly to improve the funding of higher education's teaching function. Prior to the introduction of tuition fees in Germany, a range of models had been promoted by different expert groups and think tanks and discussed in higher education policy fora.

261. Nevertheless, the introduction of tuition fees happened, ironically, more as a by-product of a conflict over competencies between the federal government and the Laender than as a planned policy intervention. It had more to do with defiance and avoidance of loss of face than a reflection of political preferences - the majority of the electorate is very much opposed to tuition fees (as witnessed by the substantial support for a public petition for a referendum concerning their abolition in Bavaria). There is a strong tradition in Germany of seeing higher education as an entitlement, and of opposing tuition fees on these grounds. This is in spite of the fact that in the absence of fees, entry into German higher education is strongly biased against students from lower social backgrounds, albeit mainly because social selection takes place in the preceding school system.

262. Among the notable features of the German fee experiment which lasted, in total, for eight years, from summer 2006 until autumn 2014 are that:

- Fees were introduced in seven out of sixteen Laender, which was like a quasi-experimental design that allows for a clear analysis of the effects
- Fees were set at a moderate level - a maximum of €500 per semester (HK$4,300) €1,000 per year (HK$8,600)
- Notwithstanding the moderate level of fees, about 30 per cent of students in the Laender that introduced them were exempted on social or other grounds
- Tuition fee income went to higher education institutions (apart from a small top slice for a "security fund" intended to cover any default or other non-repayment) and was earmarked for improvements in the quality of teaching and learning; so it represented additional money on top of state allocations
- Students had a strong say in the exact use of the funds at institutional level, acting as safeguards of their proper use
- There was and remains a national student loan scheme (not specifically for funding tuition fees) offered by the national development bank (KfW) that is not means-tested and open to all students. That is in addition to a maintenance scheme that is dependent on parental income and consists of part grant and part interest-free loan whose repayment threshold is income-contingent (referred to as BAföG, the Federal Education and Training Assistance Act)
- In addition, each fee-charging Land developed its own provisions for tuition fee-specific loans. Some Laender offered these student loans in cooperation with the national KfW, some with their own state banks. In addition, there are many private

offers so that in all Laender students effectively faced (and still face) a patchwork of different state, savings and private bank offers as well as offers from funds

- Take-up of the available student loans was very modest, with only 5 to 6 per cent of students taking advantage of them (take-up of the tuition fee-specific loans in Bavaria was actually below 2 per cent): the overwhelming majority of students had tuition fees paid by their parents or other relatives, or paid from their own earnings or savings
- Cost recovery of the tuition-fee specific student loan scheme offered by some Laender was high, as all risks were carried by a part of the tuition fee income set aside for this purpose. On the other hand, because of the very low level of fees, even in those Laender that charged them, higher education was substantially met from the public purse and in its widest sense cost recovery was low.

Course of events

263. Until 1976, there had been moderate tuition fees referred to as “listening money” (“Hörergelder”) in Germany, which were then abolished. After that, only a range of smaller administrative fees and differing payments to student bodies (for special student public transport tickets etc.) existed, which could however in sum amount to more than €200 (HK$1,700) per semester.

264. In the 1990s, in light of the chronic underfunding of the teaching function of higher education and the costs involved in implementing the Bologna reforms, the debate on a possible re-introduction of tuition fees revived. There was a clear political split over the question with the Christian Democrat (CDU/CSU) and Liberal parties in favour and the Social Democrat and Green parties against.

265. At the same time, a conflict over competence was looming between the federal level and the 16 Laender: while the constitution grants the Laender authority over education, a federal Higher Education Framework Act existed which functioned as a bracket holding together the 16 Laender systems which were each governed by their own Higher Education Acts.

266. To prevent those Laender that were ruled by the Christian Democrats or by Christian Democrat-Liberal coalitions from introducing fees, the Federal Coalition Government, which at the time comprised of Social Democrats and the Green party, passed an amendment to the National Framework Law for Higher Education (Hochschulrahmengesetz, HRG) which took effect from 2002 and explicitly prohibited the Laender from charging tuition fees. This stimulated six Laender governed at the time by the CDU party (CSU in Bavaria) or a coalition of the CDU and the Liberals to initiate a constitutional court case against this law, which they regarded as undue interference in their legal competences and in breach of the autonomy of the Laender in education matters. On 26 January 2005, the National Constitutional Court agreed with their position.

267. This Constitutional Court decision in a way put these Laender on the spot – they could not do other than introduce tuition fees. All that did so were in the Western part of Germany and they were among the ones with the highest populations, covering 70 per cent of students in Germany and 90 per cent of students in West Germany: Baden-Wurttemberg, Bavaria, Hamburg, Hesse, Lower Saxony, North Rhine-Westphalia and Saarland. None of the Eastern German Laender, including Berlin, introduced tuition fees.

268. The political decisions to introduce tuition fees were all taken between December 2005 (Lower Saxony, Baden-Wurttemberg) and October 2006 (Hesse). Fees of up to €500 a semester (with two semesters, this amounted to €1,000 a year (HK$8,600)) were effective, starting from winter semester

2006-07 in these seven states. The precise arrangements differed but in all cases there were exemptions for students with certain characteristics, mainly on social grounds, which benefited a maximum of around one-third of students. A range of student loans were available to cover the cost of fees, but only 5 to 6 per cent of students took out any form of student loan while the overwhelming majority relied on financial support from their parents or their own earnings or savings.

269. The experiment was notably short-lived. Following political changes, mostly elections at Laender level, the number of Laender charging fees quickly shrunk. Hesse abolished fees after just a year, in 2008-09, and by the winter semester of 2012-13, Lower Saxony and Bavaria were the only fee-charging Laender left. In Bavaria, tuition fees were abolished in winter semester 2013-14 following a public petition for a referendum which the government did not want to "lose". The last state to abolish them was Lower Saxony, in winter semester 2014-15 following a change of government.

Table E1: Tuition fees in the German Laender

Land	Legal decision to introduce fees	Period	Duration in years	Amount per Semester	Amount per Year
Baden-Wurttemberg	15 Dec 2005	SuSe 2007-SuSe 2012	5	uniform: 500€	1000€
Bavaria	18 May 2006	SuSe 2007-WS 2013	6	max. 500€	1000€
Hamburg	28 June 2006	WS 2007-08-WS 2012-13	5	uniform, downstream: 500€, since WS 2009-10: 375€	1000€
Hesse	5 Oct 2006	WS 2006-07-WS 2008-09	1	500€	1000€
Lower Saxony	9 Dec 2005	WS 2006-07[1]-SuSe 2014	7,5	uniform: 500€	1000€
North-Rhine Westphalia	16 March 2006	WS 2006-07-WS 2011-12	5	max. 500€	1000€
Saarland	12 July 2006	WS 2007-08-SS 2010	2,5	500€, 300€ for the first two semesters	1000€

SuSe = summer semester, WS = winter semester;

[1]WS for freshers only, SuSe 2007 for all students.

Source: Author's compilation

270. There are now no undergraduate tuition fees for public higher education anywhere in Germany. Fees are charged at the 100 or so private higher education institutions, but these are typically small and educate only around 5 per cent of all students in the country. All that is left is a range of service and administration charges, including for student unions and free public transport tickets, that can amount up to €200 (HK$1,700) per semester.

Cost recovery and subvention from the public purse

271. According to the German Institute for Economic Research (DIW), in 2008 – the "peak time" of tuition fees in Germany – overall 4.6 per cent of higher education institutions' budgets in Germany was raised from tuition fees – ranging from 3.7 per cent in Hesse to 7.7 per cent in Hamburg. In several large Laender like North Rhine-Westphalia (7.1 per cent), Baden-Wurttemberg (7.0 per cent) and Bavaria (5.6 per cent), tuition fee income was a significant part of higher education institutions' budgets. However, it should be noted that in those Laender where fees were never charged, the question of cost recovery does not arise.

272. Looking more narrowly at the question of the rate of recovery of the publicly provided, tuition-fee specific loans that were made, cost recovery to the public purse could be argued to be 100 per cent as higher education institutions themselves – or, seen through another lens, students – had to finance the risk through specific security funds ("Sicherheitsfonds") set aside for this purpose from tuition fee income. The funds were established by Higher Education Acts in all the seven Laender that introduced tuition fees. The "risk" consisted of a cap on total student debt – meaning that all debt above a certain threshold (ranging between €15,000 (HK$129,000) and €17,000 (HK$147,000) in the seven Laender) was to be paid from the fund, not by the student – plus the risk of payment defaults. So in this regard the taxpayers' interests were protected.

273. However, as take-up of these loans was so small, in terms of the total cost, the effects were negligible. For example, in Bavaria, less than 2 per cent of students took out fee-specific loans offered by the Land. The extent of this 'withholding tax' varied from Land to Land and from time to time, depending on the take-up rates and the level of the debt cap. To cite Bavaria as an example, the contribution to the security fund averaged about 3.7 per cent of total fee income – but whether this was really sufficient to achieve true cost recovery has never been properly calculated.

274. Cost recovery of the other publicly provided schemes meant to cover maintenance, like BAföG and the KfW student loans (see below), was much lower as there are true subsidies from the public purse involved. However, few calculations exist on their extent. BAföG is a maintenance support scheme for students from low-income families for which cost recovery can be as low as 20 per cent, and that is without administration costs. It consists half of a grant (i.e. a straightforward subsidy) and half of an interest-free loan with an income-contingent repayment threshold. The low cost recovery of the loan is partly due to long repayment periods and public subsidy of any debt above €10,000 (HK$86,000). About 28 per cent of students received BAföG in 2012 and the average amount provided per student was €448 (HK$3,800). In that year alone, the scheme cost the federal state and the Laender €3.34 billion (HK$28.8 billion).

275. As for the KfW student loan which is available to all students but taken up only by about 5 per cent, the public subsidy is more indirect in the form state participation in the bank and through moderate interest rates and the absence of securities.

276. In sum, viewed narrowly as the question of the risk run by the taxpayer in making fee-specific loans available to students, cost recovery in Germany was very high as the default risk was covered by a percentage of the fee income itself. Viewed more widely as the proportion of the cost of education borne privately, cost recovery is (and was even when fees were charged) very low.

Fees and fee level

277. While each Land was free to set its own fee level or leave the setting of the fee level up to institutions, in practice virtually everywhere the Laender either set a uniform or maximum fee level of €500 per semester (€1,000 per year), and where they could choose (only in Bavaria, North Rhine-Westphalia and Saarland after the first two semesters), institutions decided more or less consistently of go for this maximum level.[31]

[31] In Hamburg, the fee level was reduced to €375 from winter semester 2009/10 onwards. In Bavaria, where universities could choose fee levels from €300-€500 and colleges ("Fachhochschulen") from €100-€500, nearly all universities chose €500, music universities €300, and colleges between €300 and €500, but most of them €500 or slightly below.

278. The explanation for this might be similar to England, that institutions fear that setting fees at lower than the maximum levels would signal an inferior market position of their institution, an effect well known in economics in markets where quality is difficult to establish. E.g., Godenhielm, Kultti and Virkola found that “the price of high-quality goods is higher when quality is not observable but must be inferred from the price”.

Differential fees

279. Given the moderate level of fees in Germany, virtually no differential fees were charged and have not been seriously discussed either. Another reason for the absence of this discussion might be that fees in Germany have been introduced under the heading of “funding” or “improving study conditions”, i.e. investments in the teaching and learning infrastructure and the improvement of the teacher-student ratio, not under the heading of private participation in the cost of higher education.

Higher fees for out of area students

280. No higher fees have been set for out of area students at any point in time. In the dominant policy discourse in Germany, this would be seen as discrimination against foreigners and as a potential disturbance of the non-monetary motivations for welcoming international students like intercultural learning and development aid. Higher fees for EU students are excluded by European regulation anyway. Now that fees have been abolished, there is no real discussion about charging fees for non-EU students only.

Whether tuition fees are set nationally or whether they are set at the discretion of individual institutions

281. Tuition fees are not set nationally in Germany as the regulation on the setting of tuition fees falls under the competences of the Laender. Laender are free either to allow tuition fees and set a certain level or confine themselves to setting a maximum level, or to forbid them. In the period that there were tuition fees in Germany (2006 to 2014), some of the Laender which introduced them set a uniform fee of €500 (Baden-Wurttemberg, Hamburg) or €375 (Lower Saxony from winter semester 2009-10), other Laender set a maximum level of mostly €500 per semester and left it to the discretion of individual institutions whether to charge them or not (Bavaria, North Rhine-Westphalia, Saarland[32]).

282. Before 2006 and since 2014, fees for regular students were and are again prohibited by Laender legislation.

How tuition fees paid by students are distributed between institutions and the government

283. In all cases where tuition fees were charged, the income was collected by the Government and passed on to institutions. As tuition fee income fully went to institutions (apart from the ‘Security Fund’) and students received a service for their payment, they were actually not referred to as “fees” in Germany, but as “contributions”; literally “study contributions”. The fee income was distributed to institutions based on their student numbers, not weighted by subjects or subject areas, but on the basis of a simple headcount. It went directly to the institutions centrally which were free to decide how to distribute the money internally. Most institutions did so on the basis of the student numbers in “faculties”/schools/departments, holding back a certain amount for central facilities like libraries, sports facilities, computer labs etc.

[32] In Saarland, not more than €300 could be charged for the first two semesters.

284. An essential characteristic of the German case is that the tuition fee income was explicitly and specifically earmarked for investments in "study conditions" ("Studienbedingungen"), i.e. the quality of the learning experience for students or, even more strictly in some Laender, the amelioration of study conditions. Students and the public watched meticulously over the maintenance of this condition, which was the only way to secure an at least temporary political acceptance of tuition fees in Germany.

285. It should be noted, however, that not all the tuition fee income collected by the State Governments was passed to the universities concerned. As mentioned above, all Laender held back a certain amount to cover the losses they anticipated on the loans they made to students. In the case of Bavaria for example, the cap for the maximum amount to be paid back by a student ("debt cap") was set at €15,000 (HK$129,000) for the maximum effective BAföG debt burden (which amounted to €10,000 at the time) plus the maximum debt from tuition-fee specific loans ("Studienbeitragskredite").[33] An income threshold of €1,060 (HK$ 9,100) per month (€1670 (HK$14,400) in 2013) was set for repayment of the loan. To fund the additional guarantees for the tuition-fee specific loans, the percentage for the "security fund" was initially set at 10 per cent in 2007 but soon lowered to 3 per cent given the low take-up rate of tuition-fee specific loans.

286. Taking Bavaria as an example, overall the costs for the security fund amounted to 3.7 per cent in the period from 2007 to 2009. Administration costs borne by institutions accounted for 2.6 per cent of this income, 70.9 per cent of total fee income was used to improve teaching and learning, and 22.8 per cent went into reserves, (i.e. was unspent money ("Ausgabereste")).

287. Reserves were actually a big – and political – issue in Germany in the period when tuition fees were charged as it was not easy for institutions to put all money to good use in the semester in which it was collected, fulfilling the strict condition that it was solely to be used for (the improvement of) teaching and learning. The definition of 'teaching and learning enhancement' was open to interpretation and subject to heavy discussions between student representatives and other university members - e.g. is the modernisation of rotten lecture halls an improvement of study conditions or does it fall under the general responsibility of the state anyway? Does the building of additional parking slots in a rural university fall under the term "study conditions", even if students needed them?

288. The difficulties were compounded by the parity of student representation in the decision making bodies, plus the planning difficulties with varying tuition fee income from semester to semester. Students made a political issue of the fact that not all tuition fee income was actually spent by institutions, while strategically blocking spending in some governing boards, so the government pushed institutions to actually spend the money. Total income from tuition fees in Bavaria was an average of €155.6 million (HK$1.34 billion) per year between 2007 and 2009, of which €113.3 million (HK$974 million) per year was distributed to the nine state universities. These sums amounted to 5.6 per cent of higher education institutions' budgets in 2008. This sounds small but given that it was additional money spent to improve the student experience where students felt it was most needed, the money actually made a big difference.

[33] Meaning that a student, irrespective of how high his or her debt was, would never have to pay back more than €15,000 and the remainder of the tuition-fee specific debt would be paid out of the fund – the remainder of the BAföG debt was paid by the state. The maximum debt was however limited by the maximum sums provided per month and the maximum duration of support.

Impact on participation

289. The overwhelming evidence suggests that the tuition fees that were charged in Germany of a maximum of €1,000 per year, in combination with the existing schemes for funding maintenance plus the various new possibilities for taking fee-specific loans (see next section), had no deterrent effect on participation. They neither led to a reduction in overall student numbers nor to migration between non-fee charging and fee-charging Laender. One explanation is that fee-charging is interpreted by students as a signal of quality education, another that a fee level of €1,000 per year is too low to have a deterrent effect.

290. But it is also important to consider that there were ample exemptions to tuition fees in all Laender that charged them. To cite Bavaria as an example, exemptions for the following student types were stipulated in the Bavarian Higher Education Act: students having their own children below 18 years, students from families with three or more children, students from families with more than one child currently studying (since 2009), students studying in the framework of international agreements securing fee exemption, students with severe social difficulties (e.g. a handicap), high performing students, students doing an internship or a gap semester.

291. Again, taking Bavaria as an example, in total 30 per cent of all students were exempted from tuition fees in winter semester 2009-10, 22 per cent for social reasons. Regulations in other Laenders' higher education acts had a similar coverage, though the siblings' clause was a particularly generous and frequently applicable exemption that was only applied in Bavaria and Baden-Wurttemberg. In North Rhine-Westphalia, another generous exemption was in place limiting the maximum effective debt that a student would have to pay back to the maximum BAföG debt of €10,000, thereby effectively exempting all BAföG recipients from paying tuition fees where they took up the Land's tuition fee loan. An overall calculation of the Laender that charged fees does not exist, but it seems to be a fair estimate that overall, only 70 per cent per cent of students paid fees (partial exemptions did not exist given the small amounts).

Support (e.g. loans) available to students

292. To summarise, there are two major publicly subsidised national schemes meant for funding maintenance, BAföG support and the KfW student loan ("Studienkredit"). BAföG is a national scheme to support students from low-income families; the KfW is a national development bank and its student loan entails an indirect subsidy from the public purse through favourable eligibility and interest rates. While BAföG was and remains available for students from poorer households only, the KfW loan is open to nearly all students (though there are age limits and some other limitations, e.g. to going abroad). Both schemes were and remain generously subsidised (both the interest charged and the repayment terms – see below).

293. Between 2006 and 2014 when there were fees in some German Laender, these Laender provided additional, fee-specific loans in cooperation with state banks, or again, the KfW. These loans were not publicly subsidized, but were underwritten from a percentage of the fee-income. They were abolished when the fee experiment ended. The tuition-fee specific loans were introduced in addition to the existing schemes that were meant to cover maintenance only but could of course be used by students for financing tuition alike. In addition, a range of private providers, both banks and funds, developed offers for student loans that could be used for maintenance or tuition fees alike, many of which persisted after abolition of tuition fees at public institutions. These arrangements are detailed below.

BAföG

294. Germany has a long tradition of maintenance support for students referred to as BAföG according to the Act on which it is based, the Federal Education and Training Assistance Act ("Bundesausbildungsförderungsgesetz"). BAföG is a federal scheme, and was introduced long before the introduction of fees, and so was intended to cover maintenance. It is provided by the state, half as an interest-free loan, repayment which starts only above a threshold of €1070 (HK$9,200), half as a non-repayable grant. Maximum BAföG loan plus grant support was €670 (HK$5,770) including health insurance (€597 without) per month, with an average per student of €448 (HK$3,860), increased to a maximum of €735 (HK$6,335) starting from autumn 2016. But even this increased amount is widely considered inadequate.

295. About 28 per cent of students received BAföG in 2012, entitlement to which is means-tested, based on parental income. The parental income thresholds are however such that there are many students in need of extra funding that are not entitled to BAföG, and not all parents decide to support their grown-up children's studies to the extent that they need. So many students work besides their studies, and only a small percentage take out other loans (see below). The exact BAföG conditions and coverage are under permanent discussion and public scrutiny, and are periodically adjusted.

KfW student loan

296. The only publicly supported nation-wide and universally available student loan scheme (offered by the federal development bank KfW – "KfW Studienkredit") was introduced in 2006, the year when fees were introduced in the first Laender, and was also intended to support maintenance only, as witnessed by the maximum loan level of €650 per month, which is scarcely sufficient to cover maintenance, but of course it could be used by students for funding fees.[34] Unlike BAföG, eligibility is not contingent on parental income and age limits are generous, so it is open to nearly all students. The KfW student loan is intended to help students cover their living costs during their first degree, regardless of their own income or that of their parents. Students over the age of 18 are eligible to apply if they meet the following conditions:

- Studying at a state or state-recognised university based in Germany for a first or second degree or undertaking PhD studies, including part-time studies
- Not yet turned 35 years old; since 2013 the age limit was lifted to 45 years
- A German or European Union citizen and officially resident on German soil for at least three years.

297. No securities are required from students other than enrolment in a degree programme. Students may borrow between €100 (HK$862) and €650 (HK$5600) monthly, usually up to and including the 10th semester. A maximum of four additional semesters can be funded, subject to an application stating reasons for the extension. The KfW student loan can be combined with BAföG (the public means-tested scheme to fund maintenance) to create a combined maximum monthly benefit of €1,320 (HK$11,300). The period of the loan can be arranged flexibly, with a maximum credit period of 34 years. The interest rate is variable and is adjusted every six months according to developments on the capital markets. The interest rate for the following six months is set on 1st April and 1st October of each year. The loan is repaid in monthly instalments once the student has graduated and started

[34] There was another loan provided by KfW, the "education loan" ("Bildungskredit"), that had even better conditions, but was available only for the completion of studies for a limited period of two years' maximum.

work; with a maximum duration of amortization of 25 years (from the start of repayment). The maximum funding volume with 14 semesters (7 years) is €54,600 (HK$470,000).

298. The minimum repayment rate is €20 (HK$172) per month, the loan repayment is not income-contingent and is not interest-free. Interest rates are variable, but can be fixed for a maximum of 15 years. In spite of these market-like conditions, there is public money involved in the KfW student loan as the interest rates are moderate and subsidised (in 2011 they were around 4 per cent).

KfW education loan

299. Apart from the KfW student loan, the KfW also offers a so-called "education loan" ("Bildungskredit"), which has very favourable interest rates of currently only 1.03 per cent, but is limited to the final period of completing an education or training programme. It requires no securities and can be taken out in addition to BAföG and the KfW student loan.

Public tuition fee-specific loans

300. As the introduction of fees falls under the competence of the Laender, when tuition fees were introduced all seven Laender that introduced fees developed their own provisions for tuition fee-specific loans ("Studienbeitragskredite"). Some made these loans available in cooperation with the national development bank KfW (Bavaria, Hamburg, Lower Saxony, and Saarland), some with their regional state banks (e.g. Baden-Wurttemberg, North Rhine-Westphalia, Hesse). Distribution was through various channels, mostly banks, in Hamburg through the student union ("Studentenwerk"), in Saarland even through higher education institutions. Arrangements for the tuition-fee specific loans were detailed in the Laenders' higher education acts.

301. To ensure that students' debt burden would remain manageable, the seven fee Laender each set a cap on total debt (BAföG and tuition fee repayment) of between €10,000 (HK$86,000) (North Rhine-Westphalia) and €17,000 (HK$147,000) (Hesse, Hamburg). The cap meant that all debt that students would incur that was above the cap would not have to be borne by the student. But of course total maximum debt was limited by the maximum amounts students could take out per month and the maximum duration of eligibility. To fund these caps and the general default risks, part of the tuition fee income was set aside in Laender-specific security funds ("Sicherheitsfonds") – however note that the security funds were only meant to cover the risks of the tuition fee-specific loans. The BAföG risks and exemptions were born by the state.

Private student loans

302. In addition, a range of – partly very specific – offers was developed by savings banks and by the private sector, some by banks, some by enterprises in the form of investment funds into students. Again, overall take-up was very low.

303. As a consequence, a bewildering range and mix of loans was available to students for funding their tuition fees, some of them provided by the Laender themselves, but many more by public banks and private providers, including private investment funds. Conditions varied widely. The bi-annual "study loan test" ("Studienkredittest") published by the Centre for Higher Education Development (CHE) helps students to orientate themselves in this 'jungle'.

304. After abolition of fees in public institutions, the tuition fee-specific student loan schemes offered by the Laender were closed, but the national maintenance schemes – grants and loans – remained in principle unchanged. Also, many of the private loans and funds still exist, providing funding for tuition fees from private institutions or additional maintenance funding for students which do not fall under the BAföG conditions but nevertheless need additional funding. While the KfW student loan is most

popular due to its favourable conditions, there are other niche loans that cater for specific needs or subject fields in better ways.

305. National percentages on the overall take-up of tuition-fee specific loans are not available, only numbers on the overall funding of studies, maintenance and fees. These show that the overall take-up of student loans and funding schemes was and remains small: In 2012, only about 6 per cent of students opted for a loan – 5 per cent for a KfW student or education loan, and only 1 per cent for student loans from other (savings) banks (BAfÖG, which also includes a loan element, is not included in this number, but listed separately below).[35] Among the students that needed a loan, most opted for the KfW loan. At the same time, 87 per cent of students were fully or partly funded by their parents, 63 per cent fully or partly funded their studies out of their own earnings, 32 per cent received support from BAföG, 23 per cent from other relatives and 20 per cent from own savings. 4 per cent of students received a grant (mostly merit-based).

306. So overall, a reasonable conclusion is that loans for financing fees or maintenance did not play a significant role in the Germany fee experiment. Although the publicly-provided loans were undoubtedly subsidised – because their repayment was income contingent or because interest rates were lower than market rates – the amounts involved were very small and so the overall economic impact of the student loans on the balance between public and private funding was negligible. However, the impact of tuition fees on this balance was visible, with 4.6 per cent of higher education institutions' budgets coming from tuition fee income in 2008, and led to visible improvements in the quality of teaching and learning, as witnessed in national student surveys.

Loans for private HE students?

307. BAföG and KfW student loans are available for students from public and private higher education institutions alike, as long as they are publicly accredited. As for the tuition-fee specific loans, at least the Bavarian offer was open to all students of Bavarian universities, be it public or private. The private sector student loans, too, are available for students of public and private institutions alike.

308. However, private higher education plays a negligible role in German higher education. Private institutions are predominantly small, and mostly confined to certain niches and subjects in business education and IT. While there are about 100 private higher education institutions in Germany, they cater only for about 5 per cent of the student population.

The German Case revisited from different perspectives

Student perspective

309. According to a national monitor (Gebührenkompass, University Hohenheim), students in Germany were not happy with the use of the tuition fee income up to their abolition, but their unhappiness reduced from year to year (from 4.55 in 2008 to 3.74 in 2011 on a scale from 1 = very happy to 6 = very unhappy). As regards the question whether tuition fees should be abolished, students became increasingly polarized, with 64 per cent in favour of their abolition in 2011 and 19 per cent in favour of retaining fees. The perceived quality of studies and study conditions improved from 2.69 to 2.49 on a 6 point-scale between 2010 and 2011, and 68 per cent of students liked studying at their institution.

[35] The numbers for 2009 are very similar: 5 per cent of students opted for a loan, 4 per cent for the KfW schemes and 1 per cent for loans from other banks. These numbers are calculated on the basis of a reference group that covers the typical student, which, in Germany, had an average of €864 per month at their disposal in the 2012 summer semester for covering maintenance and tuition.

All in all, somewhat ironically, the negative public mood against tuition fees was not reversed by the positive perceptions of their effects.

Affordability

310. With tuition fees of mostly €1,000 per year, most students in Germany had them paid by their parents, other relatives or own earnings. Only a small percentage of students opted for loans in order to fund their living or tuition fees (up to 6 per cent altogether, of which up to 2 per cent took loans specifically for tuition fees). A possible explanation is that, with the cost of living averaging around €10,368 per year (HK$89,000) according to the DSW 21st social survey, €1,000 did not make that much of a difference.

Repayment terms

311. In spite of the generous subsidies involved in publicly provided loan schemes which limit the maximum debt burden of students to between €10,000 and €17,000€ including BAföG, and which make repayment dependent on an income threshold of about €1,000 net per month, a strong debt aversion is notable in discussions in student fora in Germany, and indeed in their behaviour – with such a low take-up of loans.

Widening participation

312. Widening participation remains a challenge in Germany despite the absence of tuition fees, mainly due to social selection in the school system, the strong role of vocational education and training, and the segregation of the education system as a whole. Participation rates in higher education are low in international terms (with entry rates of 41 per cent and graduation rates of 30 per cent in 2010, according to OECD Education at a Glance 2012). The widening participation agenda was not negatively influenced in the period of tuition fees in some Laender. An explanation given by German researchers is that students from lower social backgrounds in particular gave a high positive weight to the perceived quality improvements in learning conditions funded from tuition fee income, and this increased the expected return from higher education. This positive effect offset the negative effects arising from an increase in the cost of higher education. Nevertheless, the view that tuition fees deter students from lower social backgrounds from studying is widespread and dominates in the political discussion on tuition fees.

Choice of institution or of programme

313. The choice of institution or of programme was not influenced by tuition fees, as there were no differential fees for different programmes. Research has shown that there was no migration from non-tuition fee Laender to tuition-fee Laender that was influenced by fees.

Government's perspective

Impact on public expenditure

314. The introduction of tuition fees in no way restrained public expenditure as the fee income was extra money that went more or less entirely to institutions to improve the quality of teaching and learning. The impact on public expenditure in fact arose with the abolition of tuition fees: several Laender, including Bavaria, Baden-Wurttemberg and Lower Saxony, for political reasons, decided to offset any loss of university funds through fee abolition by compensating institutions with an equal or near-equal amount from the public purse. It would have been politically difficult to maintain that after the abolition of tuition fees the quality of provision for students (including teacher-student ratios, intensity of counselling and advice, IT and general infrastructure, conditions of teaching rooms and facilities, library opening hours etc.) should fall back to pre-tuition fee levels. In Bavaria, this has implied an annual extra sum of about €189 million (HK$1.63 billion) per year of public money paid to

institutions as compensation for loss of tuition fee income from 2014 onwards, guaranteed by an amendment of the Bavarian Higher Education Act in 2013.

Political consequences

315. Politically, it is very difficult in Germany to introduce tuition fees, even at moderate levels. Elections can be won by abolishing fees, but not by introducing them. So, soon after the introduction of tuition fees by Conservative or Conservative-Liberal Coalition governments, in some Laender, tuition fees became a major issue in the next election, and the Social Democrats and the Green Party came into government promising to abolish tuition fees – a promise they kept. For this reason, tuition fees lasted only a very short time in some Laender, e.g. one year in Hesse and two and a half years only in Saarland. In all other Laender, shifts of government brought the abolition of fees, except in Bavaria, where the Conservative-Liberal Coalition Government itself abolished tuition fees in response to a threatened popular referendum vote against tuition fees in 2013. Ironically, it is common to pay kindergarten fees in Germany of about €200 (HK$1,720) per month and crèche fees of about € 400 (HK$3,440) per month, but when it comes to tuition fees, the deep-rooted view prevails that university education is an entitlement and should therefore remain free of charge.

Unintended consequences?

316. An unintended consequence of the German fee experiment was the increase of precarious temporary positions below professorial level. Due to the unclear time horizon for fees in Germany, no permanent (professorial) positions could be funded from tuition fee income. Even more so, the obligation to use tuition fee income entirely for the improvement of "study conditions" was often interpreted as meaning that when it came to academic staff teaching-only positions alone could be funded on this basis, as research allegedly did not contribute to the quality of the student experience. This meant that academics in these positions had to do their PhD or post-doc research in their spare time, a development that was criticized by academics in light of the Humboldtian ideal of unity of research and teaching.

Did it enable universities to provide high quality education?

317. All seven Laender that introduced fees ruled in their Higher Education Acts that 100 per cent of the income from tuition fees had to be used for the purpose of teaching and learning (Hamburg) or, even more strictly, to improve the quality of teaching and learning (Baden-Württemberg, Bavaria, Hesse, Lower Saxony, North Rhine-Westphalia, Saarland). Where exactly the money was used was typically decided at the faculty/department level with student participation in the governing bodies. Typical uses were better learning facilities like library services, computer and IT, space for group work, common rooms and sports facilities, technical equipment of teaching rooms, better teacher-student ratios and supervision, additional courses, student advice. As students had a say in the governing boards deciding over the use of funds – in Bavarian institutions students were guaranteed parity – they could act as effective watchmen that the money was put to the use required by the Act.

318. Although as referred to above the unclear time horizon for tuition fees meant that no permanent academic staff could be funded from tuition fee income, altogether there was a visible improvement in facilities and teaching and learning conditions in those Laender that introduced fees. Even based on the moderate levels that were charged, fees amounted to between 3.7 (Hesse) and 7.7 (Hamburg) per cent of the institutions' budgets and an even higher percentage of the expenditure for teaching.

Higher Education Institutions' perspective

Did the funding arrangements provide adequate, stable and predictable funding?

319. To give an example from Bavaria, tuition fees generated extra income for higher education institutions of €182 million (HK$1.568 billion) in study year 2011. This meant extra sums of between €10 million and €35 million (HK$86 million and HK$300 million) per university per year, earmarked explicitly for the improvement of teaching and learning.

320. However, from the perspective of institutions, the income from tuition fees did not provide stable and predictable funding as the resources allocated to institutions were based on student numbers, which naturally vary from semester to semester. Within institutions, too, resources were distributed based on enrolment in faculties/departments. Also, with tuition fees fiercely debated, institutions were never sure how long they could count on the extra income. They therefore did not dare to use it for funding permanent staff. Nevertheless, faculties developed different instruments to cope with the fluctuation, like planning with a buffer, though if this was set too high this came in conflict with the requirement to use 100 per cent of the tuition fee income for improving the student experience, and sparked criticism from students and the public. Handling the fluctuation was particularly challenging as the spending decisions were taken by academic self-governing bodies that gave parity to student representatives.

321. Nevertheless, income from tuition fees accounted for between 3.7 (Hesse) and 7.7 (Hamburg) per cent of higher education institutions' budgets in the seven Laender that had introduced fees in 2008, and 5.6 per cent in Bavaria, so worthwhile additional income was raised. And the fact that in most cases the loss of this funding was compensated by State Government with public funds shows that there ultimately was overall stability in the additional funding provided by tuition fees.

Lessons from the German experience

322. A lesson from the German experience is that moderate tuition fees of about €1,000 per year, combined with exemptions for students from poor economic backgrounds, adequate student loan schemes and the direct use of tuition fee income to improve the quality of teaching and learning, do not have a detrimental effect on enrolment. Fees at this level and of this design even seem to signal high quality, thereby promising students higher returns from their education, which offsets possible deterrent effects.

323. In Germany, overall around 30 per cent of students were exempted from tuition fees for various social reasons. While this might increase social acceptance and reduce the detrimental effects of the fees, it also meant that the fee-paying student subsidised the exempted student and less than the full tuition fee amount was available per student (e.g. in Bavaria, an average of about €700 out of €1,000 per year in 2007 to 2009).

324. On the other hand, because some of the tuition fee income was retained by the State Exchequer and not paid to universities, the German design of the loan schemes reduced the demands on the public purse generally associated with subsidised loans.

325. The specific obligation, required in the Laenders' Higher Education Acts, that the tuition fee income should be clearly targeted by institutions at the improvement of the quality of teaching and learning, in combination with giving students a strong say over the specific use of funds at central and departmental level, was a unique approach that helped secure some degree of student acceptance of tuition fees even in difficult political contexts.

326. German tuition fees clearly constituted extra income for higher education institutions. They came on top of the state allocations to institutions, were directly distributed to institutions based on enrolment, and were targeted at the improvement of teaching and learning. This gave the tuition fees a very visible positive effect for students.

327. The German case also shows that transparency and communication are critical success factors when introducing or redesigning a tuition fee and related study loan scheme. The federal constitution of German higher education renders it particularly difficult to create a transparent system and for public policy to communicate it well.

Summary of replies to the research questions

- Cost recovery and subvention from the public purse
  - Today, with no tuition fees cost recovery is zero. Even when tuition fees were charged it was minimal. As much as one third of students did not pay the €1,000 fee and taking Bavaria as a case study the total institutional income from tuition fees was only €145 million (HK$1.25 billion) out of the total cost of education of €2.6 billion (HK$22.4 billion) – so cost recovery was 5.6 per cent. And even that low figure accepts the official assumption that withholding 3.7 per cent of tuition fee income in a security fund is sufficient to offset the subsidy of loans, which only worked because of the low take-up of tuition-fee specific loans.
  - It is possible that that the national grant and loan schemes that were meant to cover maintenance (BAföG and KfW student loan) were used by students to cover tuition fees also. While take-up and the sums provided of BAföG did increase significantly in the years 2006-2014, there is no research yet indicating whether this represents in part an extra subsidy from the public purse for funding the moderate tuition fees, or whether this was due to other reasons. Numbers on the development of take-up of the KfW student loans over time are not available.

- Fees and fee levels
  - In those seven Laender that charged fees (which covered the great majority of students in Germany), the maximum fee was €1,000 per year (with few exceptions), which is in fact what the majority charged. In most cases the Land stipulated the fee, in the others it set the maximum.

- Differential fees
  - Differential fees were not charged

- Higher fees for out of area students
  - Fees were uniform for all students whatever their domicile, whether German or not.

- Whether tuition fees are set nationally or whether they are set at the discretion of individual institutions
  - Laender were free to make their own decisions about this. In the majority where fees were charged, uniform fees were set, and in the others a maximum which in fact the overwhelming majority of higher education institutions charged.

- How tuition fees paid by students are distributed between institutions and government
  - Fees were in all cases paid to the state government which then distributed them

(after deducting an overhead to cover a loan subsidy) to universities based on student numbers.

- What evidence there is about the impact on participation of different funding regimes and in particular participation by students from disadvantaged backgrounds
  - There is no empirical reason to believe the fees that were charged had any impact on participation.
- Support (e.g. loans) available for the payment of tuition fees
  - Liability to pay fees was means tested and a significant minority had their fees paid for them (30 per cent in Bavaria, 20 per cent on social grounds). The take-up of loans that were provided specifically for the payment of fees was negligible (less than 2 per cent in Bavaria), and take-up of the generous publicly-subsidised student loans that were already available to support maintenance costs but could be used for any purpose including the payment of fees was a small 5 to 6 per cent, too. So overall it seems fair to say that the student loan schemes effectively did not play a major role in tuition fee policies in Germany, nor in buffering the effects of tuition fees. It must however be taken into account that about a third of student received BAföG support to cover maintenance, which they were free to use to pay the tuition fee money, as well. BAföG does include a loan element though this is not prevalent in students' perception.
- Private higher education
  - Loans and other support were and remain available to students at accredited private institutions
- Sources of the funds and arrangements for their repayment
  - Apart from a few merit-based grants, the only funds explicitly provided for the payment of fees were loans – both provided by private banks and by state governments, the latter mainly arranged through banks as well. So overwhelmingly the funds were provided by and repayments made to banks.
  - This remains the case with respect to loans provided for maintenance

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ANNEX F: FUNDING HIGHER EDUCATION INSITUTIONS IN IRELAND

Introduction and Background

328. Like Singapore, Ireland is an example of a country which explicitly decided some years ago to invest in and develop its higher education system as an instrument of economic and social development. Subsequently studies have shown that this policy was very successful: Ireland expanded rapidly, drawing in large amounts of direct foreign investment attracted by the highly educated and skilled workforce.

329. Since that decision, education and research in higher education institutions has been funded very largely, but not exclusively, through government grants. Until 1995 the cost of education was shared between the Government and students, and at that time students paid a fee of about €1800 (HK$15,500). In 1995 the Government implemented its campaign promise to abolish fees. The way it did this was to retain fees notionally, but for the Government itself to pay the fee on behalf of each student recruited by an institution, though students were still required to pay a “registration charge” – initially of €50 (HK$450). However, since then the number of students has grown substantially and the economic situation has deteriorated, and so although the Government still pays fees on behalf of students, the “registration charge” paid by students themselves as a "student contribution“ has translated into an effective contribution to the tuition fee and has grown to over €3000 (HK$26,000) per year.

330. Also noteworthy in relation to Ireland is that there are two types of higher education institution – Universities and Institutes of Technology. Until 2011 they were funded by different methods, but since then the basic method used to calculate funding for the two is the same, though different values are applied to some of the parameters. The fee paid by students is the same, but the Government’s contributions vary

331. Ireland is one of a number of countries - alongside, for example, England, India, Scotland, Hong Kong and New Zealand - where a buffer body exists that sits between the Government and institution, and whose role it is to allocate funding between institutions. It is the Government's business to decide on the total budget that it is willing to spend on higher education and it is for the buffer body, in this case the Higher Education Authority of Ireland, to decide on the method for allocating that money and then distributing it. The Higher Education Authority is also responsible for advising the Government on the needs of universities, including their financial needs, but then it is for the Government to decide the total to be allocated, taking account of this advice and other political and economic considerations. Once the total has been determined, the Higher Education Authority distributes this total between institutions, on the basis of its previously determined funding method.

332. The current method for financing higher education in Ireland is under review. The reasons for this review are

- The realisation that higher education institutions in Ireland have become underfunded in recent years (largely as a result of the economic downturn that has hit Ireland particularly badly, which has resulted in severe cuts to public expenditure), and that it is important for national economic reasons to restore their funding in order to enable them to become globally competitive again
- This sentiment is accompanied by a view that sufficient funding cannot be provided from the public purse alone – especially in view of the projected population increase in the coming years

- The feeling that the present arrangements which have arisen in an ad hoc way and represent political compromise are unsustainable.

333. So a large-scale, politically neutral, review has been set in motion to examine alternative arrangements and to recommend a future system for financing higher education.

334. This note describes the present method, and makes reference to the likely changes where they seem to be of interest.

Funding Method

335. Higher education institutions receive their core recurrent funds from two (in reality three) sources:

- Recurrent government grant, provided by the Higher Education Authority, allocating funds from the Department of Education and Skills on a formulaic basis
- Fees, which themselves are in two parts
    - Part paid by the Government on behalf of all students (the Free Fees grant)
    - Part paid by students themselves (currently €3,000), but which the Government pays in part or in full on behalf of students from low-income families
- Student fee paid on behalf of all students by the Government

336. A key principle of the Irish funding method is to achieve uniformity of core grant allocation for students in the same broad areas, regardless of the institution at which he/she chooses to study and recognition of the extra costs which arise in the case of students from disadvantaged backgrounds.

337. Core funding is intended to cover the cost of the recurrent activities of higher education institutions. Universities and Institutes of Technology have other sources of income, but the intention is that the government recurrent grant plus fees (student contribution plus government funded fee) is sufficient to enable the institution to function and meet the recurrent costs of providing education and a basic level of research. Increasingly that has not been the case and universities have relied on some other sources of income – like fees from international students – to help meet some of their core costs.

Tuition fees

338. Until 1995, students paid a significant tuition fee, but since 1995-96, the State has paid some of their tuition fees on behalf of all eligible full-time undergraduate EU students (the "Free Fees" Grant). The Free Fees grant – paid by the HEA from the grant it receives from the Government - is based on fee claims submitted by the HEIs and certified by each President i.e. returns of eligible student numbers. The reminder of the fee (currently €3,000) is paid by students themselves, though the Government pays part of these as well (up to 100 per cent) on behalf of economically disadvantaged students, on a means tested basis.

339. The level of fees payable varies according to subject (and also, for reasons that are not clear and which no-one seems able to explain, slightly according to institution). The current fee levels are shown in Table F1 below. Table F1 below shows fee levels in the seven universities in 2015. Fees in the Institutes of Technology are generally lower, and this is reflected in the higher levels of HEA grant that they receive. The present level of student contribution towards these fees is €3,000. The Government pays the rest through the HEA's Free Fees grant.

Table F1: EU fee rates in the universities

	UG Arts/Business	UG Science	Medicine	PG MA Arts	PG M Eng	PhD (Arts/Business)	PhD (Science)
UCD	€5,626	€7,320	€8,479	€6,240	€6,920	€5,820	€6,550
UCC	€5,685	€7,320	€8,650	€6,000	€6,500	€5,770	€5,770
NUIG	€5,598	€7,268	€8,613	€6,015	€4,900	€4,275	€4,529
MU	€5,629	€7,317		€5,250	€5,250	€5,250	€5,250
TCD	€5,681	€7,332	€8,371	€6,105	€6,105	€5,570	€6,365
UL	€5,558	€7,262		€4,588	€5,700	€4,321	€5,471
DCU	€5,922	€6,679		€6,505	€4,950	€4,905	€5,505
Average	**€5,671** (HK$48,900)	**€7,214** (HK$62,200)	**€8,528** (HK$73,500)	**€5,815** (HK$50,100)	**€5,761** (HK$50,000)	**€5,130** (HK$44,200)	**€5,634** (HK$48,600)

Source: data supplied by HEA

340. It should be noted that the €3,000 student contribution to the tuition fee is means tested, the Government paying up to 100 per cent of the student contribution on behalf of students from low-income backgrounds. But to the extent that students do pay part or all of the fee there are no loans or other support available to them to do so.

341. The Free Fees grant is the first call on the funding available through the HEA, and, therefore, the more students that are recruited, the greater the level of tuition fee support that the HEA has to pay and the less money is available for distribution as grant. That is one of the reasons why the Government is considering controlling student numbers in the future – see below.

HEA grant

342. The allocation of the HEA grant is determined on a formula basis - based on a standard per capita amount in respect of weighted EU student numbers (and non-EU research) in four broad subject price groups. This standard per capita amount is not fixed, but depends on the total level of funding that the Government makes available to the HEA each year (it also depends on the total the HEA allocates as Free Fee grant because the more that is allocated as Free Fee grant the less that is available for HEA formula grant).

343. Student numbers in the four groups are weighted to reflect the relative cost of subjects. And the total funding available for distribution as HEA grant is divided by total weighted student numbers to establish the standard per capita amount paid for each student. This standard unweighted per capita grant is effectively the amount paid in respect of the lowest cost students (Arts and Humanities)

344. The unweighted standard grant per capita, which varies between universities and institutes of technology, has over the last three years been as shown in Table F2 below

Table F2: Base standard grant (unweighted) 2014-2016

Year	Universities	IoTs
2014	€1321 (HK$11,400)	€2,361 (HK$20,350)
2015	€1227 (HK$10,600)	€2,377 (HK$20,500)
2016	€1247 (HK$10,750)	€2,515 (HK$21,700)

Source: data supplied by HEA

345. These are the base figures to which weights are applied. For example, as will be seen from Table F3 below, a student of clinical dentistry has a weight of 4. So in 2015 a university will receive a grant of €1,227 (HK$10,550) for each arts student and €4,908 (HK$42,200) (four times €1,247) for each clinical student. This system draws significantly on that used by the Higher Education Funding Council for England (HEFCE) and reflects the fact that broad groups of subjects have different levels of resource requirements.

346. Student numbers used in the model reflect final student numbers as at 1 March each previous academic year – for example for the 2015 grant, the 2013-14 student numbers are used.

347. The price groups and weightings for both undergraduate and postgraduate students are as shown in Table F3 below:

Table F3: Subject Price Group Weightings:

Price Group	Description	Cost Weight
Clinical – Medicine	The clinical stages of medicine	2.3
Clinical – Dentistry and Veterinary	The clinical stages of dentistry and veterinary	4.0
Lab	Laboratory – based subjects (science, pre-clinical stages of medicine and dentistry, engineering and technology) Postgraduate Research 1.6 x 3 (i.e. 4.8)	1.7
Fieldwork	Subjects with a studio, laboratory or fieldwork element Postgraduate Research 1.3 x 1 (3.9)	1.3
Non- Lab	All other subjects Postgraduate Research 1 x 3 (3.9)	1.0

Source: HEA Recurrent Grant Funding Model Higher Education Authority (2014)

Under-represented Groups in Higher Education

348. An adjustment is made within the core grant allocation to reflect the costs to institutions of attracting and supporting students who come from non-traditional backgrounds (students from disadvantaged social backgrounds, mature students and students with disabilities). An additional weighting of 33 per cent is currently used. It should be noted that this is a supply-side incentive – it encourages universities to enrol disadvantaged students, but does not do anything to encourage such students to participate. However there are other funds in place to encourage students from under-represented groups to participate such as the fund for students with disabilities and the student assistance fund which supports students from socio-economically disadvantaged backgrounds.

Research

349. In addition to weighting research students, 5 per cent of the core allocation is top-sliced (exclusive of the Free Fees grant) and allocated on the basis of research criteria (research degrees awarded and contract research income per academic staff). This element of the model currently applies only in the university sector. That is to say 5 per cent of the grant that is due to each university is removed, and then reallocated competitively between universities.

Moderation

350. A moderating mechanism is a feature of the Recurrent Grant Allocation Model and prevents large swings in allocations from one year to the next. Such a mechanism is included in order to maintain financial stability within the higher education system. The moderator is currently +/- 2 per cent, which means that no institution's allocation can increase or decrease by more than 2 per cent of the sectoral change in any year. (So if the sectoral grant increases by 5% then no institution can receive a grant increase of less than 3% or more than 7%).

351. All of these various adjustments are made in such a way as to ensure that the total amount allocated by the HEA remains within the total envelope of funding provided by the Government.

Total core recurrent funding

352. The tuition fee is added to the HEA grant allocation described above and the total received by an institution for each student is the sum of the HEA grant allocation plus tuition fee – itself part provided by the Government and part by the student.

353. So, as an example, in respect of a student studying arts in University College Dublin (UCD) full time, who attracts a weighting of 1, the institution will in 2015 receive €1227 for this student as core grant; and it will also receive €3000 from the student (In some cases part paid by the Government on the student's behalf) and €2626 from the HEA as Free Fees grant (€5,626 minus €3,000). Therefore the total the university receives in respect of each Arts student is €6,853.

354. The upshot is, taking core grant, Free Fees grant, student contribution to fees and government payment of fees in respect of disadvantaged students, that the amount per student provided to universities by the Government and students respectively and in total in 2014-15 was as is shown in Table F4 below

Table F4: Sources of core income in 2014-15

	Total Income (€)
Private contribution	
Tuition fees paid by students – in 2014-15 fees were €2750	173,566,980
Public contribution	
Total Paid by the HEA as Free Fees grant	312,506,876
Core Grant paid by HEA	613,468,150
Government payment of fees on behalf of disadvantaged students	171,474,145
Total public contribution to core income	1,097,449,171
Total Core Income of HEIs	1,271,016,151
Of which Government/Private contribution	**86/14**

Source: Author's calculations from data supplied by HEA

355. So taking core funding alone it would appear that about 86 per cent of the funding of HEIs in Ireland is publicly provided.

356. As with the other countries reviewed, as an incentive to maximise such income, other income generated by the Institution is not taken into account in the grant allocation. Apart from income raised from entrepreneurial activity, research and consultancy etc., Irish institutions receive significant (and growing) income from international (and other full-fee paying) students who pay fees significantly greater than those paid by Irish and EU students. In 2014-15 such income amounted to over €517 million (HK$4.46 billion).

Other elements of government grant

357. In addition to the funding received by institutions through the core recurrent grant funding model there are two further elements in the calculation of their total funding from the HEA

- Performance related funding, benchmarked against best national and international practice, with emphasis on setting targets and monitoring outputs. This aspect of the model is being phased in, commencing in 2014. At present up to 5 per cent of the annual core recurrent grant will be linked to performance by HEIs in delivering on national objectives set for the sector.
- Earmarked/Strategic Funding which supports national strategic priorities and which may be allocated to institutions on a competitive basis.

358. Although the funding for each institution is calculated in some detail, separately for students in different subjects, and with different components for teaching and for research, when it is allocated funding – other than earmarked funding - is allocated as a block grant: the internal allocation of funds as between teaching and research and across faculties and departments etc. is a matter for each institution.

Performance Funding

359. In detail, the HEA will agree with each HEI a funding contract or service level agreement which sets out the key outputs, outcomes and levels of service to be delivered and the resources allocated to

achieve them. The HEA has agreed in principle that there will be a top-slice or holdback from the annual recurrent grant which will be released to HEIs based on evaluation of performance against agreed targets in specific areas. It would hold back up to 5 per cent of the grant, and the process would operate as follows:

- The high level mission, orientation and key strategic relationships of the institution will be agreed, including the planned future student profile
- There will be regular review of an institution's performance against its agreed mission and profile – some elements may be reviewed each year, some elements less frequently. That review will take into account:
  - Pre-requisites – compliance with quality assurance and quality enhancement processes, code of governance, financial performance, data returns compliance
  - Progress towards its agreed mission, progress towards any agreed consolidation of institutions or significant programmes, progress on collaboration within agreed clusters (it is proposed that all institutions will be members of regional clusters of institutions, each cluster having its own identity and mission)
  - Key Performance Indicators (KPIs) – small in number. The HEA is working with the sector to develop an appropriate menu of KPIs
  - Institution Student Number Profile – adherence to an agreed profile or reasons for departure, volume, access targets, mix of provision by undergraduate, postgraduate, research, full-time, part-time, discipline balance, mode of delivery, international students, target progression rates.

360. Where the HEA's analysis of actual profile shows a significant departure from the planned statistical profile, that will be addressed in Strategic Dialogue (see below) and the institution will be asked to explain the departure or comply with the plan. The outcome of the strategic dialogue in this regard could result in a change to the agreed profile or in a requirement to have a KPI showing tracking compliance with the original plan. It could also impact on the institution's draw-down from the 5 per cent top-slice/holdback.

Earmarked Funding

361. In Ireland as elsewhere, a certain amount of the resources available are held back in order to fund national initiatives or strategic needs. But in Ireland also as elsewhere this is generally not popular with the institutions because the more that is held back for central initiatives the less is available to the institutions to spend at their discretion. For that reason earmarked funding is kept to a minimum and is regularly reviewed.

362. Earmarked funding currently amounts to 13 per cent of overall funding (of which a quarter is specifically for the education of nurses, funding of whom is a recent responsibility for which funding was explicitly provided).

Cost recovery

363. It will be apparent from the above that cost recovery in the Irish system – defined as the proportion of the total core cost of higher education that comes from non-public sources – is low: estimated at about 14 per cent.

Impact of the funding arrangements on participation

364. Ireland has a high participation rate – higher than most in the OECD area - and there are no suggestions that the present arrangements have impacted negatively.

365. As far as participation by disadvantaged groups is concerned, considering that the Government pays the entire student contribution on behalf of significant numbers of students from low-income families, and makes some contribution in respect of as many as 50 per cent of all students, then there seems no reason why the student contribution arrangements should deter participation from economically disadvantaged students.

366. On the other hand, considering also that 50 per cent of students have to pay the fee up front unsupported by loans or other forms of support, then there might be cause for concern that these arrangements are off-putting for some of those who are not among the most disadvantaged. However, there is no empirical or research evidence to suggest that that is so.

367. As a matter of interest, and bearing on the question of the impact of fees on participation, there was apparently no improvement in participation in Ireland after fees were abolished in the mid-1990s.

368. On the other hand, there is some evidence from the Irish experience that the reductions in funding of recent years (accompanied by worsening staff student ratios, etc.) has led to an increase in student dropout. If the concept of "participation" is taken as encompassing the entire student life cycle, and not just admission to higher education, then there is some suggestion here that the absence of adequate funding to support students while in higher education might have a greater impact on student participation than the negative impact on student participation of the requirement to pay a fee.

Recent Developments

Review of funding

369. As discussed above the most recent development has been the establishment of an independent and far reaching review of the financing and funding of higher education. This has not yet reported, but the Chairman of the Committee has indicated that it is very likely to recommend a fee + income contingent loan arrangement. A graduate tax (an arrangement that does not seem to have been implemented anywhere in the world – although income contingent loan repayment systems bear some resemblance to a graduate tax) is being considered as an alternative. And an employer levy in respect of each graduate employed is a third possibility (not mutually exclusive of the other two).

Higher Education Strategy

370. A significant recent development is that the Government has produced a national strategy for higher education which requires the HEA to enter into strategic dialogue with each institution, and agree how each will contribute to the national strategy, its relations with other institutions in the region and so on.

371. In order to achieve these objectives the Strategy states that:

> *"A new performance funding relationship will be put in place between the State and the higher education institutions, which will respond specifically to the main national priorities, while also supporting institutional goals and objectives."*

372. The HEA has anticipated this with the performance funding arrangements described above, and the negotiation of this performance arrangement is one of the key elements in the strategic dialogue being conducted with each institution.

Regularising funding differentials between Institutes of Technology and universities

373. Despite the same funding method being used for the funding of Institutes of Technology and universities, because fee levels are different the overall funding of the Institutes is lower. Given the

principle that similar activity should be funded at similar levels throughout the system, the HEA is addressing this.

374. More fundamentally, the HEA is also proposing to consider whether to continue to attempt a single funding model to apply to all institutions or whether there is a need for an increased number of funding streams for different institutions (bearing in mind that there is a strong possibility of mergers and collaborations as well as different types of institution in the future).

Weightings used in the funding model

375. The HEA proposes to review the funding relativities in the light of new data that are available.

Student number controls

376. The present core funding model is very much student numbers driven, with both the core grant calculation and the fee support allocated on the basis of student numbers. Historically, the HEA has not controlled student number intake in the HEIs[37]. This has been seen as a matter for each individual institution. The funding model however has tended to encourage growth in student numbers. In the current context, with declining government funding, the fear is that this may lead to unsustainable outcomes, and indeed may already have damaged quality.

377. The Free Fee grant effectively operates as an undergraduate demand-led scheme and is funded as the first call on the total amount allocated to higher education. Thus an increase in full-time undergraduates anywhere in the system requires increased funding from the Free Fee grant and leaves a reduced amount to be allocated through the core grant. Similarly an increase in student numbers in one institution effectively reduces the funding available for distribution in HEA grant to others.

378. So the HEA is considering whether to deal with student numbers in the core funding allocation model by allowing student numbers to be included only where they conform (within a tolerance limit) with the profile of the institution which is to be agreed by the HEA with each institution as part of the strategic dialogue process. Core funding agreements could be made for three years, and adjustments to core funding made in the intervening period to take account of changes to the agreed profile arising from strategic dialogue or otherwise. Growth in undergraduate student numbers would be encouraged only where they are in areas of recognised skills gaps, with perhaps compensating reductions in other areas. In the context of new funding becoming available it is proposed that priority would be given to growing numbers related to skills requirements.

379. Another proposal under consideration is to allow HEIs to grow numbers at their discretion on the basis of income from student fees (€3,000) only, or on the basis of full economic fees. Such an arrangement is not uncommon elsewhere in the world, but raises difficult political and policy questions to do with equity of access and standards, and that is something that the HEA has said it will need to take into account as it considers this question.

380. One way or another the Government is considering limiting the number of students it supports – a radical break with past practice.

Summary of replies to the research questions

- Cost recovery and subvention from the public purse
  - Cost recovery is low, largely because of the provisions made by the Government for students who cannot afford the fees that are notionally required. No loans are

[37] With the exception of health sciences and teacher education, where quotas apply

available so the Government pays some fees on behalf of all students, and all fees on behalf of a significant number. It also pays some grant direct to institutions. The result is that it is estimated that only around 14 per cent of the core cost of higher education is recovered from sources other than the taxpayer.

- Fees and fee levels
  - Fee levels are shown in Table F1 above. However it should be noted that through the Free Fee grant the Government pays the fee or a significant part of the fee on behalf of all students, and for the most disadvantaged students it pays the entire fee.
- Differential fees
  - Differential fees are charged depending on institution, subject and level.
- Higher fees for out of area students
  - In Ireland significantly higher fees are charged for international, non-EU, students.
- Whether tuition fees are set nationally or at the discretion of individual institutions
  - Tuition fee levels are set and adjusted by the Government
- How tuition fees paid by students are distributed between institutions and government
  - Institutions are guaranteed a level of income based on the tuition fee plus direct grant (with the Government paying part or all of the tuition fee on behalf of all students). However this guaranteed level of funding varies from year to year depending on the Free Fee commitment of the HEA as well as the total budget provided by the Government for higher education. In principle the tuition fee is paid in full to the institution though in some cases, the Government pays part of the fee on behalf students directly to the institution
- Fairness and affordability: what evidence there is about the impact on participation of different funding regimes, and in particular participation by students from disadvantaged backgrounds
  - There is no evidence that the present arrangements have had any negative impact on participation – nor is there any evidence that the abolition of fees in 1995-96 led to increased participation. On the other hand there is some concern that the reductions in funding have contributed to a deterioration in student completion rates
- Support (e.g. loans) available for the payment of tuition fees
  - No support of any kind is available to those who pay tuition fees. But the Government pays the entire fee or part of the fee on behalf of up to 50 per cent of students, means tested.
- Private higher education – and in particular if student loans are available to private higher education students
  - Private higher education is rare in Ireland and there is no current government policy in relation to it. And other than for very specific and limited programmes no student support or institutional support is available in relation to students attending private institutions.

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ANNEX G: FUNDING HIGHER EDUCATION INSITUTIONS IN CHILE

Background

381. 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. For that reason – as well as the fact that the new government that took office in 2014 intends to reform the system – it perhaps holds few lessons directly for Hong Kong. Nevertheless, the fact that it represents an extreme example of an essentially private university system – where the overwhelming majority of finance comes from fees, with relatively little government funding – makes it an interesting case study and counterweight to some of the others.

382. 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 fees to compensate. The present arrangements were essentially put in place in 1981 when private institutions were allowed – encouraged in fact – but without any government support which was limited to the public, together with a small number of (mainly religious) private, universities.

383. 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.

384. Despite the apparent acceptance by students of the relatively high personal commitment that higher education requires, over the past 4 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 replacing fees with direct government provided grant. That is proving difficult, and nearly 2 years after her election there has been little movement, despite numerous pronouncements of good intentions, and increasing dissatisfaction is once again being expressed by students.

Taxonomy of higher education institutions in Chile

385. 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 programmes that lead to professions that require an academic degree) and Technical Training Centres teach technical programmes usually of two years of duration. The Universities are divided into the so-called CRUCH (the Council of Rectors) Universities and the rest. The CRUCH universities are the elite, and direct government funding is almost exclusively directed to these.

386. The Pinochet era taxonomy remains in place, and the current disposition of higher education institutions in Chile is as shown in Table G1 below.

Table G1: 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	44	332,000
CFT	61	144,000

387. It will be seen that 16 of the CRUCH universities are public and the remaining 9 private (6 of them associated with the Catholic Church, and 3 lay) and these alone and to this day receive direct grant routinely from the Government. 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.

388. Some private 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.

389. Because of its highly privatised nature, national statistics about higher education are patchy, but based on the information that there is, the non-completion rate is thought to be extremely high, and the time to completion among those that do complete 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 students to complete rapidly.

Financing Chilean higher education

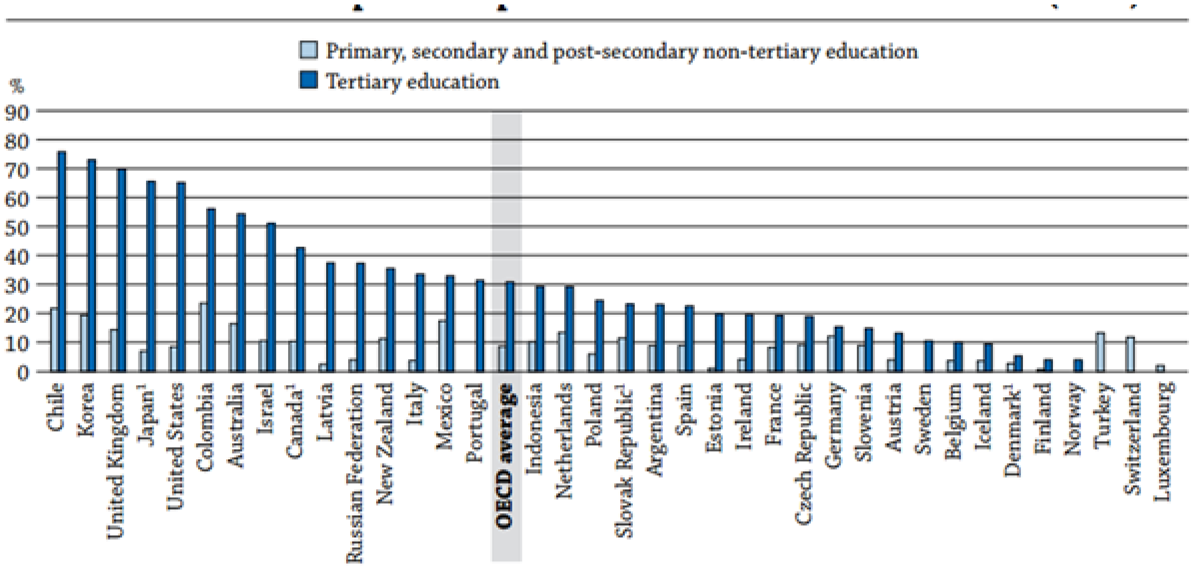
390. Higher education institutions in Chile rely very substantially on private finance, although, like American private universities, many of the students who pay the fees on which the private higher education institutions rely receive loans (or very exceptionally grants) from the Government, so even 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.

391. 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 better off backgrounds, and this measure is not thought to have done anything to improve quality or standards.

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

393. Chile's overall spending on tertiary education is 2.0 per cent of GDP – among the world's highest - but public spending accounts for only 0.3 per cent 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 Figure G1 below.

Figure G1: 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*).
StatLink http://dx.doi.org/10.1787/888933117478

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

394. 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. On average even Chilean public universities (a small minority) receive nearly 80 per cent of their operating budgets from sources other than government subsidies, with a range of 50 per cent to nearly 100 per cent. 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 spending per student by both regional and global 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.

395. Consequently, Chile also has by far the largest level of graduate debt relative to income in the world, as is apparent from Table G2 below.

Table G2: 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.

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

397. 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 higher education. The arrangements are ad hoc and incoherent and are recognised to be so by the Government. At the last count there were 20 scholarships of various kinds, for various purposes and with various conditions, and with different merit and needs elements, but despite their number, they are small in value and are not significant in the financing of higher education in Chile.

398. The two main sources of government support for students paying tuition fees come in the form of loans and support for fee 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 per cent, repayments deferred until two years after graduation and set at 5 per cent 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, although technically the loan agreement is between the university and the student. 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.

399. 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 – contracts are between the bank and the student - 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 repayments are not subject to an income threshold and have to be repaid over 20 years, though at a low rate of interest. Repayment levels are higher than those required of borrowers under the Fondo Solidario scheme, with repayments fixed at 10 per cent of income (compared to 5 per cent with the Fondo Solidario).

400. 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 CRUCH universities. So one third of all students have no support available to them, whatever their means, and nearly half of students not at CRUCH universities are in this position.

401. 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.

402. 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 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 a similar purpose is served. Fees vary from about US$2500 (HK$21,600) per year to about US$7500 (HK$64,700), with an average in both public and private universities of around US$5,500 (HK$43,000). A small number of the best regarded institutions are clearly able to charge fees greater than the loans that are available to support them.

403. 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.

404. 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 this grant from year to year
- Indirect support on a means tested basis, through the programmes of loans and scholarships to students to enable them to pay fees, and through guarantees to banks – but loan levels are fixed, and so to some extent fee levels are influenced by the Government
- A small but growing performance fund, available to public universities only.

405. Direct government grant (which goes largely to the 25 CRUCH universities) accounts for 38 per cent of all government expenditure on higher education. Indirect support of higher education, through

loan subsidies and grants to students, accounts for the majority, though a significant minority – perhaps a majority -do not. Because of the complexity of the system – and the lack of transparency – it is impossible even to estimate the cost recovery rate, and although OECD data show that public funding is low, the real costs of the loans that are made are not accounted for.

Participation

406. There are no studies that systematically look at the impact of the funding regime in Chile on the willingness of young people, and in particular students from poor backgrounds, to participate in higher education. However, it is notable that despite the high personal cost Chile has one of the highest levels of participation in South America, with the implication that the funding regime is not proving a disincentive

407. However, care needs to be taken in interpreting this fact as Chile is economically the most advanced country in South America, and so the penalty for not having a degree (or conversely the benefit from possessing a degree) is commensurately higher, and there is added incentive for young people to go to university regardless of the cost. And it is notable that non-completion rates are thought to be high and time to completion long – but there are no good data available to verify this.

Recent developments

408. In her election campaign Michelle Bachelet promised to abolish fees, initially for the poorest 50 per cent 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 year or so.

409. 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 resources 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.

Summary of replies to the research questions

- Cost recovery and subvention from the public purse
    - Cost recovery – defined as the proportion of private funding relative to all funding spent on higher education – is claimed to be among the highest in the OECD area. However, there are a very large number of schemes of public support ranging from grants for poor students, loans and some direct grants to private universities, though not regularly provided. It is virtually impossible to say what the level of cost recovery is, but despite the number of mechanisms for the injection of public funding, the net result is that cost recovery is nevertheless certainly very high in the sense that public funding is very low.

- Fees and fee levels.
    - These are set by individual universities, though by setting the maximum fees for different programmes the Government effectively influences the level of fees. The World Bank study referred to above found fees ranging from around US$2500

(HK$21,600) per year to about US$9,000 (HK$70,000).

- Differential fees
  - Differential fees are charged depending on institution and subject.
- Higher fees for out of area students
  - Charged at the discretion of the Institution
- Whether tuition fees are set nationally or at the discretion of individual institutions
  - Fees are set at the discretion of institutions, but the Government has a strong influence on the level of fees
- How tuition fees paid by students are distributed between institutions and the Government
  - Fees are paid direct to universities and government grant is paid separately and in parallel to those that are eligible
- What evidence there is about the impact on participation, and in particular participation by students from disadvantaged backgrounds
  - Despite the funding regime participation in Chile is among the highest in South America, but care needs to be taken in drawing an implication that the financing regime is not proving to be a disincentive. On the other hand non-completion rates are thought to be high, and it is likely that the funding regime has some bearing on that.
- Support (e.g. loans) available for the payment of tuition fees
  - A bewildering array of support is available to students – many available only to students at public institutions, but many also to students in private – generally on a means-tested basis. The system is widely regarded as chaotic and in serious need of reform. Chile does not provide a model for Hong Kong or any other country in this respect.
- Private higher education – and in particular if student loans are available to private higher education students?
  - Most institutions in Chile are private and government loans are available to students attending these, generally on a means tested basis.
- Source of capital and its repayment
  - Capital finance for loans is provided by the banking system, with the Government providing guarantees and subsidies for some loans. Contracts are between students and banks, who are responsible for receiving payments and administering the loans.

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ANNEX H: FUNDING HIGHER EDUCATION INSITUTIONS IN NORWAY

Introduction

410. 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 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 an 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 Government also provides some core funding to private institutions.

The Norwegian higher education landscape

411. There are 3 main types of public institution operating in Norway:

- A small number (8) of traditional universities that have had a special status which is eroding
- 20 university colleges which were previously distinct in undertaking no research, but that distinction is fading
- Five specialised university institutions.

412. In addition, there are a number of private higher education institutions in Norway, primarily offering programmes and courses within popular fields of study where the number of public places is limited, or offering accelerated courses. In addition, most are foundations, either autonomous or part of various religious societies, and 23 of these receive funds from the Government[38], though students attending these private higher education institutions generally have to pay some fees. However, students can receive Government loans to cover these. In total private institutions of various sorts provide for only about 10 per cent of the student population.

413. Universities have self-accreditation rights for all programmes at all levels. Where university colleges and specialized university institutions have an accredited PhD programme they are granted self-accreditation rights at all levels, and beyond that all have self-accreditation rights 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.

414. 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.

415. 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

[38] The Higher Education Act allows that private institutions may on application to the King be declared entitled to state support to cover operating costs of accredited courses

are allocated funds as a block grant, calculated according to the funding method and it is for them to decide how to spend these.

Funding system

416. The new funding system was introduced for universities in 2002 and later expanded to include almost all higher education institutions. The funding reforms did not introduce tuition fees – they were aimed at reforming the method of providing public funds to universities. To this day students at state universities and university colleges – whether Norwegian or overseas - do not pay tuition fees. This is true for all levels, including undergraduate studies, Masters programmes and Ph.D. programmes.

417. Most private institutions have tuition fees for all their programmes and courses. But the fees are usually significantly lower than those of comparable studies in most other countries. Also, foreign students do not pay higher tuition fees than Norwegian students – at all levels, undergraduate and postgraduate.

418. The reforms, of which the new arrangements for providing government funding to institutions 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 (performance related)
- A component based on research results (competitively allocated).

419. The proportion of an institution's funding that each component represents differs according to the type of institution, as set out in Table H1 below:

Table H1: Funding elements applied to different institutions in Norway

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

Source: Norwegian Ministry of Education 2014

420. The difference in the proportions of funding due to research between universities and specialised university institutions on the one hand and university colleges on the other reflects the differences in their missions. University colleges are not expected to undertake research to the same extent, and so do not gain as much in the competition for research funding.

421. 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. In all cases this represents the majority. 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.

422. 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 uprated each year roughly in line with inflation.

423. 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.

424. 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.

425. The present arrangements, like 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 – and also when it calculates increases in the fixed funding due if an increase in the base number of students has been agreed – it weights each student according to his or her subject of study. The weights currently used are shown in Table H2 below

Table H2: Weights attached to different disciplines in Norway

Category	Studies	Weight
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

Source: Norwegian Ministry of Education 2014

426. The weights used by the Norwegian government are not dissimilar to those used in England, Australia or 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 set in 2002 and have been increased annually since, in line with inflation.

427. The "research component" of the funding method is clearly results related and competitively allocated. 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 indicators shown in Table H3 below.

Table H3: Weights attached to different indicators for research funding

Indicator	Weight	Rate of funding in 2014 (in kroner)
Doctoral candidates	0.3	340,313 (HK$306,000) per candidate
Research grants from the EUs 7th framework programme	0.18	1,392 (HK$1253)per 1,000 Kroner (HK$900) won
Research grants won from the Norwegian Research Council & Regional Research Funds	0.22	166 (HK$15)per 1,000 kroner won
Scientific publications in international journals	0.3	33,265 (HK$30,000)per publication

Source: Norwegian Ministry of Education 2014

428. Each indicator has a weight (second column), which determines how much of the 1.7 billion NOKs (HK$1.5 billion) that were available in total in 2014 would be allocated through that indicator. The last column provides the rate for 2014 per result (per candidate, per 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 Parliament decides to increase the overall amount for distribution).Those institutions that increase their funding from this source do so at the expense of others.

429. 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 also provides grants and loans for living expenses within Norway, and even 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 – nearly 60 per cent is based simply on what was received the previous year.

430. 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 performance and competitive elements to the grants, which have led to an increase in both student numbers and research outputs. And the measures used for the different components of the performance and competitive elements are predominantly outputs (credits produced, research publications and grants obtained – though this last may be thought of as an input as well). But no private contributions are made to the cost of education in public institutions, and in private institutions, although fees are charged, these are generally subsidised because government grant is also paid to those.

Loans and grants

431. The above has been in terms of funding of education. Over and above the free education that it finances, the Government also makes generous provision for students to meet their living expenses.

432. The Norwegian State Educational Loan Fund (Lånekassen) was established in 1947 to promote equal opportunities regardless of geographical condition, age, gender, and economic and social background. In 20013-14 NOK4 billion (HK$3.6 billion)] was allocated as grants and NOK20.2 billion (HK$18.2 billion) was given as loans. Students living with their parents are not entitled to grants but may receive loans. Means testing of the parents' income for loans was discontinued in the early 1970s. Grants, however, are means-tested, and may be reduced if the student receives social benefits, possesses substantial assets or earns more than NOK108, 680 (HK$98,000) per year.

433. Loans are interest-free during the study period and all students are entitled to financial aid for a maximum of eight years. Students may receive a maximum of NOK80,000 (HK$72,000) in annual student support. Initially, the basic amount is given as a loan but, upon completion of studies, part of it is converted into a grant (to a maximum of 40 per cent). The actual proportion depends on a student's success in completing his/her studies. A student who takes up the full annual student support of NOK80,000 and who follows normal study progression (no study delays) will end up with an annual sum of NOK32,000 (HK$29,000) in student grants and NOK48,000 (HK$43,000) in student loans. There are no differences between families from different socio-economic backgrounds in terms of levels of state support.

Impact of the funding arrangements on participation

434. As can be imagined, no negative impact on participation is seen as a result of the arrangements for higher education financing in Norway.

435. Whereas in other systems the provision of free higher education might mean that public funds are constrained and that therefore opportunities for young people to participate will be limited, that is not the case in Norway where, on the contrary, the Government has in place a performance funding system that is intended precisely to encourage universities to expand and accept more students.

436. As a result, Norway has one of the highest levels of participation in the OECD area.

Other matters of note

437. 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.

438. 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.

Summary of replies to the research questions

- Cost recovery and subvention from the public purse
    - Public higher education is more or less entirely funded from taxation, and cost recovery is therefore at or close to zero.
- Fees and fee levels
    - Not applicable – fees are not charged in public institutions.
- Fees for out of area students
    - At public institutions fees are not charged of any students, whether Norwegian or overseas. At private institutions where fees are charged no distinction is made between Norwegian and overseas students.
- Impact on participation
    - The impact on participation of the funding system is Norway is thought to be entirely benign.
- Support for students
    - Support for students at public institutions, because no fees are payable, is limited to maintenance support, which is very generously provided through a system of loans, grants, and loans that are substantially converted to grant. This maintenance support is available equally to students at private and to public universities and to international students attending Norwegian higher education institutions.

      In addition, because even private universities are eligible to receive some government grants, fees at these universities are generally far lower than would otherwise be the case, and so effectively students at private institutions are also subsidised by the Government, though indirectly.

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