

Background: This is a submission to the Productivity Commission's enquiry on *National Agreement for Skills and Workforce*. While there are no direct references to the PC's (2020) Interim Report, the issues I choose to address are fundamental to the economics of Australian tertiary education and most are touched on in the Interim Report. My professional background is that I am an academic economist with a research and policy expertise developed from more than 30-years experience in the economics of tertiary education financing, particularly with respect to higher education. I have had published several books and around 150 papers in the area of student loans, and I have been an advisor to the governments of around a dozen countries concerning tertiary education funding reform.

Bruce Chapman

College of Business and Economics
Australian National University

July 2020

1 The Pervasive and Critical Role of Risk in Understanding Tertiary Education Financing

1.1 Background

An informed understanding of the economics of tertiary education financing would give a profound role to the pervasive presence of risk, for students, banks and governments. What now follows highlights the significance of risk with respect to several critical areas. For a fuller discussion of these topics see Chapman, Higgins and Stiglitz (2014) and Chapman (2006).

1.2 “Market failure” and risk

It is well known that because outcomes of study are uncertain, and there is a prospect of non-completion or poor employment and earnings outcomes, lending to prospective students is seen by financial institutions to be relatively risky. As a result, students without loan repayment guarantors or collateral may be unable to access the financial resources required to access income support or to pay tuition. Friedman (1955) recognised these capital market failures and made the case for government intervention in tertiary education financing.

1.3 Government-guaranteed bank loans and risk mitigation for lenders

The most common form of government intervention in tertiary education financing is the provision to a subset of students of loans, which are often provided by commercial banks (as is the case in Canada) or the government (as is the case in the US and Thailand). These loans are expected to be repaid over a set time period (eg, 10 years with respect to Stafford loans in the US) and are known as “time-based repayment loans” (TBRL). TBRL address the capital market failure by taking away all risks to lenders in the form of a government guarantee of repayment in the event of default.

1.4 Time-based repayment loans and risks for borrowers

However, while providing effective risk mitigation of for lenders, TBRL are associated with a different form of a risk problem for borrowers, the students. This is because TBRL require repayment regardless of a debtor’s income, and can lead to substantial repayment burdens (defined as the proportion of income required for loan repayment), which in turn leads to consumption hardship and in many cases default. A person defaulting on a student loan then faces credit reputation damage which has severe adverse consequences for future commercial loan activity.

1.5 Income-contingent loans and risk

The second type of government loan intervention is an income-contingent loan (ICL) in which debts are repaid when and only if a borrower has the financial capacity to do so ICLs address

the problems of bank loans by providing a source of tuition finance for individuals who might not otherwise have access. The critical issue concerning ICL is that they eliminate repayment hardship and default risk for borrowers, with these being covered by government.

1.6 Private providers and risk

A final issue related to risk and tertiary education financing concerns the potential role of private providers. Because ICL is such a powerful instrument it is critical that any government contemplating the involvement of private providers ensures that workable legislative mechanisms are in place to prevent misuse by private providers. It is critical to understand that when it comes to student loans (of either type) taxpayers bear all the risks of non-repayment of debts.

2 *Is there a case for an income-contingent loan for VET?*

The most important economic rationale for the involvement of government in higher education financing is the existence of market failure: without a guarantor for loan repayment the commercial sector will not provide student loans because of the lack of collateral as insurance for the bank in the event of default. There is consensus on this issue in the literature, and it is discussed in Chapman (2016).

This means that there is a case for a government student loan system, a point reflected in the almost pervasive world-wide availability of government student loans in tertiary education. The choice for policy lies between the two types of student loans: those with repayment made on the basis of time TBRL which operates like a mortgage and is still the most common form of student loan internationally (*inter alia*, in the US, Canada, Thailand and Colombia); and those with repayment based on a debtor's income, ICL (such as HELP in Australia, and similar systems in New Zealand, England and Hungary, and under active consideration in Colombia, Malaysia, Brazil, Ireland and Japan). Very useful material on the distinction and effects of loan design is available in the Special Issue of the *Economics of Education Review*, September 2019.

There are critical differences in the implications of the use of either TBRL or ICL, and for debtors this comes down to the adverse consequences with respect to a TBRL of loans being required to be repaid irrespective of a borrower's capacity to do so. In contrast, with ICL there is both insurance against repayment hardship and default protection, and these are the salient advantages for borrowers of ICL (these issues are considered in Chapman (2016) and Barr *et al.*, 2019). As well as these clear benefits for borrowers, ICL can be designed to mean lower taxpayer subsidies for the government compared to TBRL, and also have the benefits of extremely efficient collection (see Stiglitz, 2014).

The bottom line is that there is a case for the availability of a universal student loan system, with the most equitable and propitious form being ICL in preference to a TBRL. The arguments and evidence presented in Barr *et al.* (2019) make both points very clear.

Related to the above is the role of externalities and government subsidies associated with tertiary education. There is little doubt that there are indeed at least fiscal externalities from these investments from skill-creation, which results in higher individual incomes and thus greater income tax revenue. This is explained and modelled in Chapman and Lounkaew (2015).

However, the existence of fiscal (and other) externalities from tertiary education does not imply that there should be a universal ICL, or indeed direct government intervention of any form in higher education (the case for such action is made above). The externalities instead provide an argument for government *subsidies* to tertiary education systems. These could take the form as they currently do in Australia in which charges for public sector tertiary students are less than the costs - in some instances, such as VET, very significantly so - with the difference coming from government. The pricing issue is taken up in more detail below.

3 *Is There a Case for an ICL even for Concessional Loan Students?*

The case for extending ICL to concessional students is quite clear and follows from the conceptual discussion concerning market failure with respect to all tertiary education financing. The key point is that up-front tuition charges, even the very low ones currently in place in most jurisdictions, have the strong potential for excluding the participation of the disadvantaged. This is because some (even *most*) members of highly credit constrained groups, such as First Nation peoples, will be unable to borrow commercially to finance the payment of tuition courses through a lack of collateral to be used by a bank in the event of default; this means that access to government-provided loans is essential and, as our discussion has made clear, the most equitable and efficient borrowing system is ICL.

Throughout Australian VET there are concessional charges for the members of disadvantaged groups and in these cases fees are very low. This is an important recognition that policy-makers are aware of (and care about) the fact that members of underprivileged groups will have relatively high difficulties in finding the money to enroll if they were required to pay the significantly higher prices for non-concessional VET places. Thus the lower concessional prices are well intentioned, but arguably reflect an imperfect understanding of the economics of tertiary education financing. The critical point is that *any* level of up-front charge has the strong potential to exclude some poor prospective students, and the most equitable way to comprehensively mitigate this barrier is by making all tertiary education free at the point of entry, paid for eventually by former students through an ICL.

There is a related issue, which concerns point-in-time disadvantage compared to the lifecycle. This is that some people with no or low financial resources when they are young and interested in attaining a VT qualification may well turn out to be well paid as graduates in the future; similarly, and on the other hand, some advantaged young people may earn relatively low incomes over their lifetimes. The way to handle this equitably is through the use of ICL, which have the feature of effectively means-testing over the life-cycle.

4 *What is the “right” price to charge for tertiary education?*

An important question for government concerns the price to be set for the users (students) of VET. As a beginning to this discussion it is essential to recognise that there are two parties contributing to VET financing, government and students, meaning that a choice by the government concerning the level of subsidy to provide is also by implication a decision about the price to be charged.

Neoclassical (competitive) economics provides some guidance as to the appropriate level of government subsidy of a service, and this comes down to the value presumed of the so-called “externalities” (spillovers) associated with the activity. That is, if there are no societal benefits beyond the utility accruing to the consumers of the service, efficient resource allocation will be achieved with no subsidies, meaning that the price reflects only the cost. With respect to activities that deliver spillovers, subsidies should be set to take these into account, which means, for example, that public transport should have subsidies because it reduces traffic congestion and, on the other hand, that carbon-based electricity generation should attract a negative subsidy (a tax) because of its adverse consequences for climate change.

The economics literature is strong on listing the societal benefits of post-compulsory education, and these commonly include reduced crime, more informed voting, and the promotion of technical change through more rapid transmission of knowledge. More obviously, governments gain additional taxation revenue through the higher incomes generated by productivity-enhancing VET. There is a consensus that these spillovers warrant subsidies and thus should mean that VET prices do not fully reflect costs.

Where the literature is much less compelling is with respect to the value of these spillovers. There have been many attempts to estimate the empirics of (at least) higher education, and a useful reference is Chapman and Lounkaew (2015). However, even with a careful and detailed approach as is in that paper, and through the imposition of a host of limiting assumptions, the authors still come up with a substantial range of plausible estimates of the true value of the spillovers and thus the right level of subsidies: between 30 and 70 per cent of the costs.

Thus within the narrow context of mainstream competitive economics it is not possible to determine with confidence a precise estimate of the “right” subsidy and thus by implication the allocative efficient price for VET services. But the story is even more nuanced than this,

because much of VET is provided through the public sector, where mainstream economics provides less than satisfactory guidance as to pricing. This is because subsidy and pricing decisions are made not only with reference to the efficiency of resource allocation but also with respect to, *inter alia*, the state of the government's budget, equity, the access of the disadvantaged to VET, and the consequences for economic activity of decisions concerning the raising of tax revenues.

To illustrate just one of these complexities, take the issue of access and how this might relate to choices made about the number of VET places to be provided by government. A critical, yet mostly unrecognized, point is that in the setting of a subsidy the government is choosing the proportion of each place which is to be financed by taxpayers which then has consequences for the size of VET. The point is important enough to warrant fuller investigation, which now follows.

Governments have to make choices concerning the allocation of funds to various public sector areas, and to give this empirical content imagine that the decision is made to spend for example \$100 million per year on VET. Further suppose that the government decides to fully subsidise each place, imposing no charges on students. Then, if each student place costs say \$10,000 a year, these decisions mean that the system delivers $\$100,000,000/\$10,000$, that is 10,000 places per annum. But if the government introduces a cost sharing arrangement reducing the subsidy to 50 per cent of the cost of a place, this then means that the government is able instead to deliver 20,000 places per annum with the same budget outlays, because students are then picking up half the tab.

This example illuminates the relationship between the size of VET and student contributions to the process. Importantly, the reasoning underlying the illustration can be justified with reference to a host of evidence concerning the effect of charging for higher education and the number of enrolments, with respect to both England (Wyness, Murphy and Scott Clayton, 2019) and Australia (Chapman, 2006). In these examples increases in tuition led to expansions in enrolments.

Moreover, if it is true that the best way to maximise the access of the disadvantaged to tertiary education is to ensure that the number of places is as high as possible (Crawford, Dearden, Mickelwright and Vignoles (2017), the arguments and evidence deliver the seemingly counter-intuitive conclusion that charging for tertiary education provides more opportunities for the poor than having very high levels of subsidies. This argument, of course, must also rely on there being in place a student loan system that encourages participation; ICL achieve this (Chapman, 2006).

As part of its subsidy and therefore pricing decisions for VET the government must therefore take into account issues well beyond the simple valuation of externalities. Undiscussed but other important factors include the value placed on non-VET public sector activities and a governments' particular and changing perspectives concerning the "right" levels of taxation.

All of the above means that there cannot be a simple nor unqualified response to the issue of the right level of VET subsidies and prices. But as very rough guidelines we do know that on average there are private financial benefits accruing to VET graduates, compared to individuals with no post-compulsory education, which implies strongly an equity case for student VET contributions. Further, in public sector tertiary education internationally student tuition charges are of the order of 30 to 50 per cent of the average costs of the course; while there are marked differences between courses, this is approximately the pricing situation with respect to HECS-HELP.

5 *Should there be a Surcharge on ICL Associated with the Financing of VET?*

To understand this issue it is useful to ask how the application of an ICL to VET would be best organised in terms of who pays what and when? I think the simplest way for this to happen would take the following form.

The Commonwealth government agrees to participate in an expansion of the HELP system to cover all areas of VET that the State/Territory governments recommend. The role of the Commonwealth lies in the collection of the repayments, which has operated successfully and efficiently for over 30 years now through both employer with-holding and ATO engagement with self-employed HELP debtors.

Since the Commonwealth is collecting all the loan repayments it is fair and simple to have the Commonwealth pay the State/Territories for the initial course outlays in which students will be incurring the debt. If this is the case, and the indexation arrangements concerning the debt remain the same as they are now with respect to HELP (ie, indexing for price inflation only), the rationale for a surcharge becomes very clear. Given that the Commonwealth is implicitly bearing the interest rate costs of the debt (equal to the extent to which the government costs of borrowing exceed price inflation) there needs to be an adjustment with respect to this implicit subsidy, and a surcharge is the way to address this.

The size of the surcharge should be set to incorporate not only the implicit interest rate subsidy explained above, but also the present value of the debt not expected to be repaid. When both are taken into account, and if the parameters are set correctly, the surcharge should thus fully compensate the Commonwealth's budgetary costs involved in the process.

It is important that the surcharge issue is placed firmly in the context of the above. If the debate is instead about having consistent approaches with respect to a surcharge across different HELP regimes, the critical role of the Commonwealth as debt collector for State/Territory VET systems will be missed. Consistency with respect to surcharges might matter for other reasons, but has little to do with the implicit costs to the Commonwealth of the VET debt collection arrangements.

6 *Is there a case for having ICL in VET even if there are no implications for charges?*

Having a universal ICL for VET would facilitate, indeed make possible, more reasonable contributions to tuition costs from students, and this would make it less expensive for governments to expand and improve the quality of the system. As has been explained above, the single most important issue for the access of the disadvantaged to VET is the size of the system, so long as the protections of an ICL re in place. But it needs to be asked, even with no changes in cost-sharing, would the institution of ICL for VET be desirable?

Making ICL available is a propitious reform *in-and-of-itself* simply because ICL deliver consumption-smoothing. It is a basic principle of economics that consumption-smoothing is welfare-improving and of course that is why, *inter alia*, we have banks, pension systems and superannuation, and progressive income tax arrangements. With respect to student borrowing, the time-based repayment loans from banks are an attempt to achieve consumption-smoothing but in this context work only very imperfectly but, if designed well, ICL can do this fairly precisely.

Attempts at consumption-smoothing with respect to some Australian TAFE fee payments already exist, with there being the possibility of some students - deemed eligible by the TAFE on an individual basis - making payments by instalments; this should be seen as a very crude way to try and capture the essence of an ICL. Where this happens it must be the case that there are very high costs in terms of administration, monitoring and the determination of authentic eligibility if decisions and fee payments are being decided on a case-by-case basis. And if there is an institutionally automatic and inexpensive way to do this, why wouldn't it be used instead? This exist in Australian, and it is known as HELP.

Adopting ICL reform for all Australian VET and if such a reform can be implemented in a revenue-neutral way (and that is a matter of decisions concerning charge levels and interest rate/surcharges), this change just by itself is welfare improving. Thus the case for ICL does not rest only the possibility that up-front fees without an ICL have deterred people from enrolling, although it would be even more important to introduce an ICL if this is the case.

It is worth stressing that to the extent that ICL facilitates participation, once in place they allow the imposition of charges where they are currently none, and higher tuition levels than the low priced and/or concessional charged courses. This would then mean that the costs to the public sector of an expanded VET system would be lower than previously. Critically, as stressed, bigger tertiary education systems have been seen to be the most important feature of post-compulsory education with respect to the access of the disadvantaged.

A general point about ICL is that the instrument has great potential to improve government financing options in many different areas, simply because of consumption-smoothing. It has to come from government for two reasons: only government has the legal jurisdiction to know

what citizens' incomes (and business' revenue) is; and, through the pervasive presence of the tax office the institutional machinery is able to collect ICL almost without cost.

7 *The Complex Issue of Fee Deregulation under an ICL*

7 (i) *In theory*

There are several important reasons for believing that full fee deregulation in the Australian tertiary education institutional and policy context would potential lead, eventually, to very high course prices (and thus debts for many) for students in some - perhaps many - areas of tertiary education. The bases of this claim from a theoretical point of view are:

- a) Because the collection of HELP debt is conditioned by capacity to pay, the system provides insurance against the potential adverse consequences of normal loans. With HELP there is no prospect of default through debtors/graduates experiencing low incomes, and there will not be repayment difficulties in any future period, because no repayments are required below a threshold of about \$47,000 per annum (in current dollars) and, by regulation, repayments can never exceed 10 per cent of annual incomes. Thus institutions including private providers can raise prices, and students can commit to debt repayment, without concerns about there being debilitating future circumstances for borrowers;
- b) In markets with poor information, such as with respect to the relative quality of tertiary education, the established institutions will likely avoid having low prices compared to their close competitors because doing so can be taken as an indicator of poor quality. This concept is known in the economics literature as a "Veblen good", and is well known and documented in tertiary education world-wide;
- c) Australians wishing to undertake tertiary education face a difficult situation in the sense that there are no viable/inexpensive alternative options available, such as studying overseas; and
- d) In the presence of an ICL, and with a real interest rate subsidy on the loan, the true price differences faced by students undertaking debt will be far less than they appear to be on paper. This is because higher prices simply add to the time taken to repay the debt, given that the rules mean there can be no higher loan repayments per period of the debt. Thus the consequences of higher prices take effect not at the time of enrolment but a fair way in the future, meaning that price differences will be heavily discounted by prospective students in their choices between institutions; again this importantly mitigates the prospects of there being meaningful and effective price competition.

It follows from the above that so-called "price competition" under an ICL like HELP, while it will exist, will be quite muted. Indeed, this was the basis for the original idea of HECS, which was to limit the discouragement effects of charges and to not have important and adverse effects

on the participation decisions of prospective students (particularly those from poor backgrounds).

7.2 (ii) Evidence

There is now considerable available concerning higher education price-setting in situations/countries in which there are ICL. Some of the relevant data are:

- a) In Australia when HECS was introduced in 1989, the charge increased from effectively zero to around \$(2020) 3,500 a year, but there were no consequences for demand. Enrolments actually increased after HECS was instituted, because the government used the promise of higher revenue to expand the number of student places;
- b) When New Zealand introduced its version of HECS in 1992, universities were allowed to set whatever prices they wanted to, but the government chose to impose price caps after about 8 years because the charges had increased substantially, by at least 300 per cent at minimum for Arts, and much more in other areas; and
- c) When the UK government allowed price caps to increase from £3000 per full-time student year to £9000 a year in 2011, about 95 per cent of the institutions put their prices to the highest level, with some of them citing the reason noted above as the Veblen effect.

All of the above implies strongly that in the quest for allocative efficiency through price flexibility, there would be very high price increases in tertiary education. But why does this matter?

7 (iii) The social costs of “excessive” charges

It needs to be asked: Does it matter that students/graduates might end up paying very high prices for tertiary education in Australia? Why should we be concerned about this possibility when it will still be the case that even with very high price rises, average lifetime VET graduate incomes will remain relatively healthy?

There are at least two negative externalities from “excessive” prices for tertiary education. First, if prices become very high this means that with universal coverage of an ICL the prospects of there being high proportions of unpaid debt become very real. This is because VET lifetime incomes will be insufficient to successfully involve considerable repayments of HELP. As with all student loans, the taxpayer picks up the tab from this.

However, and secondly, the question of what the “right” price to charge students for public sector university teaching services can be clarified with allusion to a principle concerning the role of government. It is not an argument that can be made easily with reference only to economic theory or compelling evidence related to allocative efficiency, it is instead basically an ethical issue.

A perhaps normative view is that there is no clear economic justification for public sector universities to be allowed the use of a government instrument, HECS, to provide substantial revenue and insurance in a situation in which this can lead to unjustifiably very high fees. An informed guess is that if Australian tertiary education institutions were to charge the sort of prices that many of them could under the planned fee deregulation, the revenues received would in many cases far exceed the costs of teaching. While there is little doubt that in many cases these sorts of cross-subsidies already occur (particularly from the revenues received from international students), the issue concerns the extent to which this can be considered a "proper" use of the ICL instrument.

That is, if it is the case that fee revenues from price deregulation exceed considerably the costs of teaching, it is arguable that this is an improper and unfair use of a government instrument. This then promotes a case for considering "excessive" fee increases as negative externalities, or, broadly speaking, as costs borne by us all because of the injustice inherent in such a misuse of a potent power.

8 Should Unpaid ICL Debts be Repaid from Deceased Estates?

In historical terms around 15-20 per cent of HELP loans remain uncollected, in the main because debtors earn insufficiently high lifecycle earnings. While this would seem to be an acceptable cost to government of the insurance aspects of a universal ICL, it is important to ask if the proportion of unpaid debt could be decreased. Indeed, it is precisely this issue that motivated the analysis in Chapman and Higgins (2014) with respect to the prospects for the recovery of unpaid HECS debts from graduates who had gone overseas.

An issue that has always been raised in this area concerns the potential for unpaid HELP debt to be taken from deceased estates. There are two issues in this debate, the economics and the politics.

In terms of the economics of the matter having unpaid debts recovered in this way would seem to have quite limited potential to achieve savings. The basic reason is that it would be in the interests of people to rearrange their estates in response to the suggested policy reform. If a person had an unpaid HELP debt of say \$25,000 and an estate valued at more than this, wouldn't a propitious action be to diminish the value of the estate in anticipation, such as through gifts to off-spring before death?

Given the fungibility of most wealth the above likelihood would seem to imply that significant savings from the policy idea is a fanciful notion. Perhaps one way to reduce the potential attraction of people moving finances things around would be to have a cap on the amount of HELP debt that could be taken from a deceased estate to well below the likely transaction costs of avoidance; to say \$5000?

There are of course circumstances in which debtors are unlikely to have taken action to avoid losing substantial parts of the value of their estates for the repayment of HELP, and this is where a young debtor is killed accidentally. While I have no expertise in such matters, highly adverse media coverage of such incidents would be predictable and are unlikely to be appealing politically.

References

- Nicholas Barr, Bruce Chapman, Lorraine Dearden and Susan Dynarski (2019), "[The US College Loans System: Reform Lessons from Australia and England](#)", *Economics of Education Review*, Vol. 71: 32-49.
- Bruce Chapman (2006), [Government Managing Risk: Income contingent loans for social and economic progress](#), Routledge, London.
- Bruce Chapman (2016), "[Income Contingent Loans in Higher Education Financing](#)", *IZA World of Labor*: 227 doi: 10.15185/izawol.227
- Bruce Chapman and Tim Higgins (2013), "[The Costs of Unpaid Higher Education Contribution Scheme Debts of Graduates Working Abroad](#)", *Australian Economic Review*, Vol.46 (3) (September): 286-299.
- Bruce Chapman, Timothy Higgins and Joseph E. Stiglitz (eds.) (2014), *Income Contingent Loans: Theory, Practice and Prospects*, Palgrave MacMillan, New York.
- Bruce Chapman and Kiatananthan Lounkaew (2015), "[Measuring the Value of Externalities from Higher Education](#)", *Higher Education*, Vol. 70: 767-785.
- Claire Crawford, Lorraine Dearden, John Micklewright and Anna Vignoles (2017), *Family Background and University Success: Differences in Higher Education Access and Outcomes in England*, Oxford.
- Milton Friedman (1955), *Capitalism and Freedom*, Chicago University Press, Chicago.
- "Special Issue: Higher Education Financing: Student Loans" (2019), *Economics of Education Review*, Vol. 71: 1-7.
- Joseph E. Stiglitz (2014), "Remarks on income-contingent loans: How effective are they in mitigating risk?", in Bruce Chapman, Timothy Higgins and Joseph E. Stiglitz (eds.), *Income Contingent Loans: Theory, practice and prospects*, Palgrave Macmillan, New York: 136-141.
- G. Wyness, R. Murphy and J. Scott Clayton (2019), "The end of free college in England: Implications for enrolments, equity and quality", *Economics of Education Review*. doi:10.1016/j.econedurev.2018.11.007