

Performance funding: implications, risks, and options

The IRU response to the Performance based funding for the Commonwealth Grant Scheme discussion paper

The Government proposal for the university by university funding cap to be indexed to population growth is contingent on meeting performance standards on student experience, graduate outcomes and equity.

Its discussion paper explores the ways in which it could operate such a scheme to justify the plan as a viable means for some slight increase year to year in Government funding for undergraduate student education, the bedrock of university education. It claims the increases will be tied to improvement in the quality of student outcomes, without advancing evidence of serious weakness in them at the end of a period in which all universities have increased student numbers significantly.

Funding for universities to educate students is based on the argument that each university should have similar resources to educate the students it enrolls. Each will then do what it can with the revenue to meet the needs of the students. Competition among universities is about how well each can educate, not for different resources.

On this approach performance information is a pressure applied to universities to keep them focused at ensuring that students do achieve the best outcomes possible with the available resources. The IRU supports this outcome.

The Government's proposal is driven by the recurring alternative argument that that there need to be direct revenue rewards and punishments to really drive the best results. On this approach, the performance information should drive funding which should lead to some universities being better resourced than others.

It would mean that students will have more or less resources targeted at them now according to the past actions of their preferred university and of past students' choices about their future actions and assessment of their teaching. The IRU opposes this outcome.

The IRU response is in two sections.

The first shows that increases in Commonwealth Grant Scheme funding cap to cover inflation and growth in student demand should not be tied to performance funding. It considers:

1. the impact of the ongoing arrangements for the Commonwealth Grant Scheme cap;
2. the better way to encourage universities to improve student outcomes through using information to drive public, student and institutional actions;
3. the problem with tying funding increases to performance; and
4. the weaknesses of the indicators proposed to measure performance.

The second section responds directly to the Government's questions to consider how to construct the Government's plan to minimise its worst potential consequences.

Summary IRU positions

1. The Government should re-set the higher education funding framework announced at the end of 2017 so that universities can provide needed education outcomes:
 - remove the cap on Commonwealth Grant Scheme funding for each university; or,
 - if it will not do so,
 - index each university’s cap annually in line with indexation of the Commonwealth Grant Scheme rates and then
 - apply a population growth factor that will meet growth in the university target group.
2. Universities are subject to extensive pressures to maintain and improve student outcomes such that a further scheme will have limited value and could have negative consequences.
3. Tying the driver for growth in the core teaching role of bachelor degrees to performance is to undermine the focus of the funding system to encourage universities to demonstrate how well they can do with similar amount of revenue as each other.
4. The performance indicators under consideration have many weaknesses. They can inform students and others about university performance but are not well suited to drive funding. They have little relationship to the level of graduate employment three years out.

To implement the Government’s scheme within the set bounds the IRU argues the following.

5. The national population index should be applied consistently to all universities.
6. Funds for meeting targets in a given year should be added to each university’s base. The money to be allocated in following years should be the new funds available plus any funds from the previous year not allocated for meeting performance targets.
7. The major changes needed to make the indicators more suitable for use in driving funding are:
 - continue to work on a measure of student learning gain;
 - use student retention and completion within the sector not within the university;
 - rework the graduate outcome indicators to
 - focus at the outcome as a proportion of all graduates,
 - target employment rather than full time employment, and
 - develop a single measure of the proportion of students who progressed to either employment or further study.
8. Allow universities to determine some of the indicators that will be used to assess them.
9. The performance benchmarks need to be set primarily in response to each university’s recent and target level outcomes, with sector data used to ensure the target is sufficiently robust. Ratings of good or bad performance must reflect clearly significant divergence from the expected result.
10. Unallocated funds should be used to improve outcomes for bachelor level places, through an additional increase in the cap for all universities or targeted to specific growth needs.
11. Use the most recent data available to assess student progress, satisfaction and equity participation. Focus graduate outcome indicators at the longer term and more reliable collections, but minimise the financial outcome from them.
12. The Act should be amended to set out how the Government intends long term to set funding.

Section one: A badly conceived scheme

1. Impact of the ongoing Commonwealth Grant Scheme cap

Squeezing the real value of the Commonwealth Grant Scheme funding cap

The Government proposals for the university by university Commonwealth Grant Scheme funding cap to be indexed to population growth, contingent on meeting performance standards on student experience, graduate outcomes and equity is not a viable mechanism to support bachelor education in the 2020s.

It does not:

- maintain the value of Government funding year to year, so that quality improvements can enhance student outcomes; or
- provide sufficient growth to meet the demographic bulge of the 2020s or the continued steady rise in the proportion of the workforce needing higher level education.

It confounds the question of maintaining the value of university funding with allowing the system to grow in response to population growth. The population growth projections sit below the usual level of the indexation factor used to increase payments and student contributions in the *Higher Education Support Act*.

Hence the annual cap on CGS funding means that even universities who gain the full performance based allocation will still steadily need to reduce the number of students enrolled to avoid allowing the investment per student to drop below the level needed for quality student learning. Those which do not achieve their allocation will have even more pressure to reduce student numbers.

As proposed, the population growth factor will serve as the de facto indexation mechanism. That means it should apply equally to all universities.

Adjusting the cap for need and demand

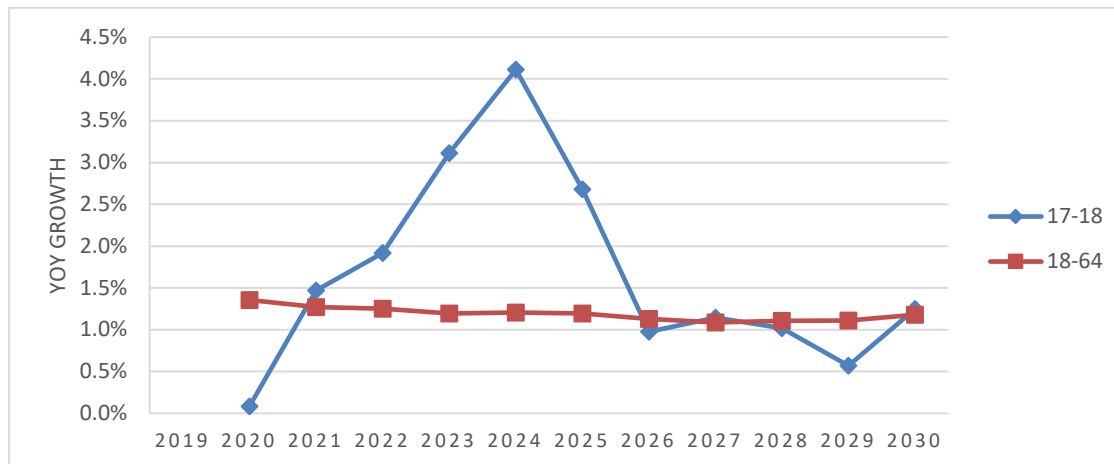
The Government proposal will not address the disparity of education outcomes across regions of Australia. Rather, it will lock in the current distribution of higher education opportunities, preventing growth where it is most needed in areas of low participation. It will likely punish universities most wanting to redress regional and socio economic disparities in higher education because the consequence of doing so is lower notional performance against the standard metrics.

If implemented, the Government and its members will have no means to respond to demographic needs of the various communities that they serve. This would make irrelevant the outcomes of the regional, rural and remote review currently under way.

The Government proposal appears to acknowledge that the demand for higher education will continue to grow steadily. If the Government seeks an overall guide to doing this, other than simply meeting demand as it grows, it should at least target the age cohorts that provide the large proportion of university students. Population growth for the 18-64 group is much lower than for the key demographic of 17-18 year olds, whose numbers over the coming decade drive the need for tertiary education over the coming two decades (see figure 1 and *IRU Briefing Paper 1*).

A capped funding system needs to be able to respond to the coming bulge in demand across the early to mid 2020s.

Figure 1 – Projected annual Australian population growth by age group(s)



ABS 3222.0 - Population Projections, n.d

IRU position

1. The Government should re-set the higher education funding framework announced at the end of 2017 so that universities can provide needed education outcomes:
 - remove the cap on Commonwealth Grant Scheme funding for each university; or,
 - if it will not do so,
 - o index each university's cap annually in line with indexation of the Commonwealth Grant Scheme rates and then
 - o apply a population growth factor that will meet growth in the university target group.

2. The better way to encourage universities to improve student outcomes

It is the Government's responsibility to ensure each Australian can access the tertiary education they need. That includes encouraging good outcomes for all students. IRU members are committed to improving student outcomes, working to reshape our courses to prepare for the changing world of work predicted for the 2020s and beyond.

The discussion paper make a very weak case for the need to extend the pressure on universities to improve student outcomes. It provides no data to show serious weakness in student outcomes.

Employment data shows that graduates are more likely to be in the workforce than non-graduates, to have employment and with real levels of wages remaining strong. The benefits individual by individual are clear, with employment and good earnings flowing through to Government revenues. The risks for individuals who do not have a tertiary qualification are clear.

Potential students can take account of the performance of the university and the factors that are relevant to their own needs, knowing that whichever universities they choose the funding provided will be similar. Universities may not always agree with the comparison made and conclusions drawn

but they are at least a set of individual judgements, not a Government directed statement of achievement with financial consequences.

The pressure on universities to perform includes:

- student retention means student EFTSL for the following year. This remains important even with Commonwealth Grant Scheme cap;
- data provided through QILT, which is extensive and continues to develop;
- the pressure of rankings which cover a wide range of factors; and
- public reputation is clearly an important driver of student choice, with the outcomes for previous students part of the mix of factors that influence reputational standings

The funding system already rewards elements of good student outcomes through the various funding supplements through the Higher Education Partnerships and Participation Program, the Indigenous Support Program and the Disability Support Program are based in recruitment and retention of the target group students.

The IRU supports use of performance metrics to inform a Government judgement about the allocation of sub-bachelor and postgraduate places. Use in this way allows judgement and consideration of the contextual reasons why individual university perform as they do against the criteria.

IRU position

2. Universities are subject to extensive pressures to maintain and improve student outcomes such that a further scheme will have limited value and could have negative consequences.

3. The risks of tying Commonwealth Grant Scheme funding to performance

The purpose of a performance funding system is to achieve a better outcome than would otherwise occur. The previous section sets out the incentives now for universities to deliver for their students – in addition to the simple truth that they wish to.

A focus on a better outcome for students should emphasise two things:

- the importance of the actual outcome for students, not simply driving up indicators that roughly relate to that outcome or punishing students for the outcomes of past delivery; and
- that change – improvement – in each university, or each part of a university, is the relevant goal, rather than a focus on comparisons across universities. Students may make comparisons, using whatever information appeals to them, but a performance funding system should be anchored in whether or not each university does better.

The risk of perverse outcomes is high if that focus is lost.

Cooperation is put under pressure in a competitive environment

While universities compete for students to varying degrees there remains a high level of cooperative activity and open discussion of initiatives. Once the pressure for funding builds too high the willingness to assist others do better will be at great risk. This is particularly so where sector averages are used to judge performance: the lower the average is, the better chance a university's performance will be ahead of it.

Hence performance based funding can discourage sector wide cooperation with the risk of encouraging actions that would hinder a competitor.

Disadvantage for students of universities which do not receive their performance based allocation

Regardless of the legitimacy of the process, and the accuracy of the indicators, if some universities gain money and others do not the result is that students at the latter universities are disadvantaged compared with if their university did receive the funds. Further, with caps on funding, even those universities who gain the performance based allocation are unlikely to be looking for growth. That means that students are less able to leave a lower performing university in favour of those deemed to be performing better.

There is no reason to fund bad delivery. The funding system ought not to lead to it as a likely outcome.

Universities improve the measures but improve real outcomes less

Indicators convey some information which informs an assessment about the educational outcome. Formally the intent is for universities to improve the underlying outcome not the measure of it but clearly the latter becomes the immediate target.

Hence the risk from performance measures is that once a target is set universities will try to achieve it. The underlying objective can be lost over time to the measure. This is particularly the case when major amounts of funding depend on the results. Past experiences show this in practice.

In the 1990s to increase research output some funding was driven by the number of publications. Publications greatly increased. That was a sign of research productivity, but in time there were questions about the quality of the research which helped create different measures (ERA) and eventually to removing publications as a funding driver. ERA notably does not directly tie to funding.

There is a major risk that pursuit of precision in measurement will overwhelm the intent of improved outcomes. This can emerge from attempts to adjust data sets for various factors, whether student characteristics or external economic circumstances. Those aspect matter for interpretation, rather than be an ambition to remove through statistical technique. Where that is done there need to be clear differences in the results to justify a rating of a good or bad outcome.

Ultimately, the incentive to do better should matter more (to government, public and any holistic view) than measures that generate a spurious sense of meaning.

IRU position

3. Tying the driver for growth in the core teaching role of bachelor degrees to performance is to undermine the focus of the funding system to encourage universities to demonstrate how well they can do with similar amount of revenue as each other.

4. The weakness of the indicators proposed to measure performance

The discussion paper proposes the following indicators, drawing on the standard set of measures discussed over several decades. As information sets most of them have value, their usefulness to express a performance rating for a university is much less. The data on graduate employment three years after graduation shows no correlation with any of the student experience or equity indicators being discussed. It shows only a weak correlation with the full time employment indicator.

| Student output and experience | Graduate Outcomes | Equity |
|--|---------------------------|---|
| First-year student attrition/ retention | Full-time employment rate | Participation by students from low SES, |
| Student completion within six years | Full-time further study | regional/remote or Indigenous background |
| Overall student satisfaction | | |

Lack of a measure of learning gain

Universities enrol different sets of students. What those students learn and how they prepare for their future lives compared with who they are initially is the challenge for performance measurement. The difficulty of constructing useful measures of learning gain should not detract from the argument for why they are needed. Understanding what a universities is able to give to its students in a way that does not overshadow the curriculum driven assessment should be central to any attempt to rate universities for learning achievements.

The importance of a good measure of the real achievement is emphasised in *Principles for equity in higher education performance funding* by Harvey, Cakitaki, and Brett.

The measure of graduate outcomes (see also *IRU Briefing Paper 2*)

The Government indicators for several decades have used two graduate outcome indicators which appear similar but which are constructed differently.

- Full time employment, which is in reality a full time employment rate of those seeking full time employment.

The employment indicator does not clearly show what proportion of graduates are actually in work at the point it is measured. It gives a better outcome to a university with 40% of students in full time employment of 50% seeking it (80% FT employment indicator), over a university with 50% of students in full time employment of 70% seeking it (71% FT employment indicator)

- Full time study, which is a simple indicator of the proportion of all graduates in further full time study.

To the extent that graduates in full time study could reduce the set looking for full time employment, a university's good indicator for further study could also improve its result for full time employment indicator.

The focus on full time employment for data collected a short while after graduation does not work as well for the labour market of current times as it did when first calculated in the 1970s. Employment is much more fluid with graduates pursuing many options in that first year. Hence:

- the measure of employment should cover all employment; while
- the interplay of the two measures of employment and further study means that 'graduate outcomes;' are better represented by a single measure covering all students progressing to either employment or further study.

This need to change the employment indicator is set out in more detail in *IRU Briefing Paper 2*.

The conundrum of time

Performance assessment is best when using current data, which creates as strong a tie as possible between the assessment and the actions of universities. Yet the real proof of value for a graduate is what happens longer term.

The data on graduate employment three years after graduation shows no correlation of that outcome with any of the student experience or equity indicators being discussed. It shows only a weak correlation with the full time employment indicator (taken at the 4-6 month point after graduation).

We can know whether current students think they are getting a good education, we can test whether they return regularly to continue their degrees but how much it ultimately assists them in the areas that Government target, essentially employment and income, is not clear for several years after graduation.

The data also shows that differences by university and field become less distinct with time. This makes proposals to future university funding based on the extent to which previous graduates have repaid HELP pointless as rewards for actions. They would be a punishment on future students for the achievement of previous students.

This means that as the data becomes more informative it becomes increasingly less relevant for a funding reward. This supports the argument that we should focus on the measures of current activity when discussing individual universities but not over value them through tying funding to them and monitor the longer term graduate outcomes for their feedback about the system as a whole.

Indicators where more is good until more is bad

Factors of student progression and satisfaction tie to university actions and the achievement of their students. The measures suffer from implying better performance for increases at lower levels (0% to 70-80%) and then negative performance at very high levels (over 90%) where such outcomes could indicate a lack of good educational outcomes. There is a similar problem for the indicator of further study. However, where the point of transition sits between a higher percentage representing a better outcome to representing a worsening one is not clear.

Other weaknesses

All universities have both a considerable set of students who shift to another part way through a degree and another set of students who choose to move to the university.

Retention and completion should focus at retention and completion within higher education not an individual university.

This is not an 'adjusted' measure. Like the alternative of retention within a university is a measure of students retained over all students in the relevant cohort. Both are equally 'adjusted' figures but neither is an adjustment of the other.

IRU position

4. The performance indicators under consideration have many weaknesses. They can inform students and others about university performance but are not well suited to drive funding.

Section two: How to make the proposal work least badly

The clear conclusion of the previous section is that increases in Commonwealth Grant Scheme funding to cover inflation and growth in student numbers should not be tied to performance funding. Performance information is most effective as easily accessible sets of information about universities and their students which students, public and Government can use to drive universities to achieve the best outcomes for their students.

This section engages directly with the questions the Government's discussion paper poses, drawing on the previous section's conclusions.

1. How should the PBF scheme be implemented?

Consideration 1: how to *grow* a university's PBF amount from 2021: Is a more regional-based population growth more appropriate?

The reality that the growth element is a de facto indexation factor means that it should be applied consistently to all universities using the national figure.

If the Government indexed the Commonwealth Grant Scheme cap first then it could explore variations in likely demand by region to include a growth element. A growth element should combine both population growth and evidence for disparities in current participation so that they can be reduced. However, analysis of the State and Territory population projections shows only some differences, mostly in the smaller states and Territories. The larger three states are not surprisingly close to the national figure across the next decade. (*IRU Briefing Paper 1*)

IRU position

5. Under the Government's proposal the population index should be applied consistently to all universities.

Consideration 2: how to *treat* a university's PBF amount from 2021

The discussion paper asks whether the performance based funding amount achieved in one year should be added to the base Commonwealth Grant Scheme cap for the university from then on or included with following years' potential funding. In rough dollar terms this asks whether \$70 million should be allocated each year or a cumulative amount which would be roughly \$140 million in year two, \$210 million in year three and so on.

Funding for universities cannot allow major amounts to be dependent to yearly decisions of the Minister. The Universities would treat the funds at risk as inherently unstable, making the 2017 allocation the base level, covering increasingly fewer students. Where performance was sufficient for funding a university in several years would be gaining an extra 5% or 10% of funding. If in a later year the performance was not sufficient the university could lose the whole amount and revert to 2017 funding cap.

That is, universities that won funding in the first few years for good outcomes could lose it all for one year of bad outcomes.

The potential to be allocated more than your initial allocation due to a redistribution of funds from universities that did not meet all their performance requirements complicates the question. It would

be better to build into the base the amount achieved for successful performance and allow any under allocation to be part of the general allocation the following year. For example of \$60 million of \$70 million were allocated in the first year, in the second year \$80 million would be available to following year, with under achievement against that amount rolling into the following year.

That could also result in the pool growing to unhelpful amounts which would be an indicator that the basic system was not working well.

IRU position

6. Funds for meeting targets in a given year should be added to each university's base. The money to be allocated in following years should be the new funds available plus any funds from the previous year not allocated for meeting performance targets.

2. What performance measures should the PBF scheme draw on?

The gaps and weaknesses of the performance measures proposed were discussed earlier.

As shown in *IRU Briefing Paper 3* performance against Equity measures tends to highlight the achievement of universities that have lower outcomes for student progression and for graduate outcomes. Filtering the student and graduate measures for equity group balance does not alter that outcome to any great degree. It is clear that universities with more targeted selection have better outcomes including for the students from equity groups that they enrol.

The balance is important. Explicitly including the equity measures highlights that broadening access is crucial to the policy objectives.

IRU position

7. The major changes needed to make the indicators more suitable for use in driving funding are:
 - continue to work on a measure of student learning gain;
 - use student retention and completion within the sector not within the university;
 - rework the graduate outcome indicators to
 - focus at the outcome as a proportion of all graduates
 - target employment rather than full time employment, and
 - develop a single measure of the proportion of students who progressed to either employment or further study.

3. How should the PBF scheme be designed?

The discussion paper says little about how the various measures would be tied to a funding outcome. It posits (p14) that a university meeting a minimum for each indicator would receive its funding. That could apply to meeting a higher target or meeting the sector average. The problem is what happens when a university meets the requirement, however defined, for some indicators but not others. This gap is indicative of the problem of tying performance data to funding.

- Is each indicator worth the same share of funding?
- is each outcome area (Students, graduates, equity) worth a third each, or some other distribution?

That the graduate outcome measures are most meaningful the further from graduation the data is collected suggests that set of indicators ought have a smaller impact on funding, while being important information about outcomes.

The paper does explore whether there should be some element of choice. This would add nuance but also complicates the system, with one key question being how much of the funding is driven by the outcome of self-selected measures. However, many universities would welcome opportunity to shape the basis of assessment in this way. For example the employer feedback indicator would enhance the analysis for many universities. It would allow the system to reflect different university aspirations and most likely ensure more positive outcomes overall.

IRU position

8. Allow universities to determine some of the indicators that will be used to assess them.

4. How should performance measure benchmarks be set?

The challenges of tying funding to performance are most stark when performance is analysed based on sector wide benchmarks due to the differences in student cohorts and the impact of variations in economic conditions for graduate outcomes.

This suggests that universities are best measured against their own past performance and targets, with sector wide benchmarks or averages, guides to the kind of outcomes that could be expected. It would support the outcome of improvement for the students of the university and sidesteps some of the problems about the robustness of the measures and the risks from an ill-considered application.

The discussion paper argues that some element of comparison with other universities is required. The problem is that any formulaic approach to this does not look credible. The performance of others is a useful comparison point for agreeing reasonable targets.

There is the clear problem that for the student indicators too high an outcome could suggest lack of quality rather its presence. An excellence marker that accepts any performance over a certain point as sufficient reduces that risk and would concentrate university activity at points of weakness rather than further enhancing notable strengths.

For most quality measures, a demonstrated minimum acceptable level of performance is simple to administer and offers greater predictability for universities. It would not have much incentive impact on basis that most universities would already be above the minimum.

The suggested top-50% ranking example is problematic because there is no justifiable reason for differentiating between universities immediately above or below a ranked threshold. A university ranked in the bottom 50% may have improved its performance against the sector and its own previous performance.

The English Teaching Excellence Framework is a more viable approach, which emphasises clear statistical differences between a university's measured performance and an estimate of its benchmark target. Setting those benchmarks remains challenging.

Performance against one's own 'best in past ten years' likely makes the existence or not of a previous notable high point as the determinant of success rather than the overall direction of the universities

outcomes. That the analysis of universities results over ten years shows mostly minor variation points to the challenge of assuming the indicators used can simply rise and rise.

IRU position

9. The performance benchmarks need to be set primarily in response to each university's recent and target level outcomes, with sector data used to ensure the target is sufficiently robust. Ratings of good or bad performance must reflect clearly significant divergence from the expected result.

5. Should the PBF funding of unsuccessful universities be redistributed?

The then Minister Senator Birmingham was quite clear that all available funds would be distributed. This removes any incentive for a Minister to make savings through a tough application of performance requirements but opens up the problem of how to use any funds not allocated through the performance assessment.

If most universities are able to achieve the needed outcomes the unallocated pool should be small. It would then be viable to allocate it to the successful universities in proportion to their initial allocations. If there is substantial non allocation then that approach would make those receiving funds particularly advantaged, especially if the extra funds are locked into their base.

There is no sense in using the funds otherwise to increase allocations for designated places, an option raised in the discussion paper. That would continue to contain bachelor level provision but increase sub-bachelor and postgraduate places.

Two other options to use the funds are:

- use the available funds to provide a general increase to all universities, those meeting performance targets and those not. This would ensure some allocation to every university and an extra element for those successful;
- increase the funding cap for universities wishing to expand in areas of need, for example in response to the regional rural and remote review.

IRU position

10. Unallocated funds should be used to improve outcomes for bachelor level places, through an additional increase in the cap for all universities or targeted to specific growth needs.

6. How much "lag" is acceptable between PBF data and the funding year?

Long term data sets have little to no value as incentives for current day activity, other than for universities to have as they do now a broad hope that they are doing well by students. By the time that data is available arrangements within a university are almost certain to have changed.

The graduate outcomes indicators are most meaningful several years after graduation, yet also they merge more closely with time – suggesting that institutional differences are minor for long term impact.

The student progress and satisfaction data and the equity data are more immediate. The more recent the data set the more relevant to encouraging improvement.

IRU position

11. Use the most recent data available to assess student progress, satisfaction and equity participation. Focus graduate outcome indicators at the longer term and more reliable collections, but minimise the financial outcome from them.

7. How should the PBF scheme be regulated?

The governing legislation should reflect the policy to be pursued.

The current demand based assumptions of the Act should be converted to reflect the Government's position that the Minister will set Commonwealth Grant Scheme funding for a university taking account of the universities actual enrolment of students, its performance against the determined measures and the level of growth of expenditure which the Government will provide.

It is not appropriate to use long term the Commonwealth Grant Scheme provisions for a maximum base grant allocation whose purpose is to allow Ministerial intervention should a university be misusing its power to enrol students and receive funding for them.

IRU position

12. The Act should be amended to set out how the Government intends long term to set funding.

18 February 2019