



**COMMONWEALTH GRANTS COMMISSION**

**DISCUSSION PAPER CGC 2000/3**

**WORKING PARTY ON THE DEPRECIATION  
AND DEBT CHARGES ASSESSMENTS  
SCOPING PAPER**

**SEPTEMBER 2000**

## INTRODUCTION

1. This paper sets out the scope and timing of the tasks to be undertaken by the Working Party on the Depreciation and Debt Charges Assessments.

2. The Terms of Reference (ToR) the Commission has provided for the Working Party are at Attachment A. They ask the Working Party to address a number of issues in its final report to the Commission, which is due by August 2002. The first meeting of the Working Party<sup>1</sup>, held on 23 June 2000, identified additional issues which members wished to explore. States supported these views with written submissions and provided further comments on a draft of this paper. All State comments have been circulated to Working Party Members.

3. This paper provides:

- (i) a list of the issues to be addressed by the Working Party;
- (ii) a brief discussion of each of them; and
- (iii) the Working Party's timetable of future events.

## MAJOR ISSUES TO BE CONSIDERED BY THE WORKING PARTY

4. At its first meeting, the Working Party agreed that its future work should concentrate on a number of broad issues. They are:

- (i) the overall approach to the equalisation of capital-related operating expenditure – the theoretical underpinnings and the practical application of these;
- (ii) in relation to the Debt Charges category:
  - whether the use of the current framework is the best approach to quantifying disabilities;
  - whether the framework is correctly specified (for example, should depreciation be included in the operating deficit?);
  - whether the data are good enough to support the framework;
  - what disabilities, if any, should be used to standardise capital expenditures and revenues;

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<sup>1</sup> A list of the attendees at the June 2000 meeting is at Attachment B.

- how the flow approach might be properly implemented in the measurement of disabilities; and
  - whether the use of capital disability factors in both the debt charges and the depreciation assessments result in ‘double counting’ of needs;
- (iii) in relation to the Depreciation category:
- whether - and if so how - the category should be broken into expenditure components;
  - what types of disabilities should be assessed;
  - how the disabilities should be assessed, and what data are available for this; and
  - whether any double counting is involved in the assessment, or between it and other categories;
- (iv) whether capital-related Specific Purpose Payments are appropriately treated; and
- (v) whether the Commission’s assessments of interest earning, repairs and maintenance of the capital stock, and lease costs are adequate.
5. The Working Party will also need to address how comparable State data can be obtained to support better assessments.

### **OVERALL APPROACH TO THE EQUALISATION OF CAPITAL-RELATED OPERATING EXPENDITURE**

6. The ToR explicitly say the Working Party should ‘proceed from the general approaches’ applied in the 1999 Review. Commission staff understand this to mean that the Working Party should accept the general assessment framework currently underlying the depreciation and debt charges assessments. Western Australia believes it means that the Working Party can put forward any assessment option that:

- (i) recognises the ‘consumption’ and ‘interest’ costs associated with capital (this being the ‘general approach’ adopted in the 1999 Review) - whether interest costs are recognised through borrowing costs or opportunity costs (debt charges and return on equity) is, in its view, a matter of specific method rather than general approach; and
- (ii) allows States to fund standardised levels of depreciation, debt charges and the like, either by equalising operating budgets on an annual basis (that is, through an assessment of borrowing costs) or equalising

operating budgets over time in net present value terms (through an assessment of opportunity costs).

7. Western Australia argued strongly at the meeting that the Working Party should look at the theoretical underpinnings of the current assessments. It argued that the rationale for the current debt charges assessment is not clearly specified and that the Commission has not demonstrated that the current model, applied over time, will actually allow States to provide equalised services. Its view is that the current debt charges assessment does not achieve equalisation because, while purporting to take a flow approach to the assessment of needs, it actually takes a stock approach. Thus needs relating to the costs of capital financed through equity are ignored.

8. Western Australia suggested that a number of different approaches to the assessment of capital needs should be examined. These include direct assessment, using accrual accounting presentations, and an economic cost approach.

9. With some support from Queensland, South Australia and the ACT, Western Australia urged the group to re-examine these issues. It wants to ensure that needs relating to the cost of capital in State budgets, particularly for those States that are growing rapidly, are properly recognised. New South Wales and Tasmania now also support reconsideration of the existing conceptual approach to the assessments.

10. The Commission accepts that the Working Party may wish to re-visit the question of the theoretical approach to the depreciation and debt charges assessments. It is open to well argued criticism of its existing approach. However, it re-affirms its position that it is committed to equalising States' operating budgets for the effects of capital stockholdings. It does not see the fiscal equalisation process as relating to State capital needs or State net worth. For any change to be made, parties will need to show how developing assessments of the opportunity costs, or approaches that equalise operating budgets over time in net present value terms, fit within these constraints.

11. A question that needs to be asked is whether there is a difference between:

- (i) equalisation of State operating budgets on an annual basis; or
- (ii) equalisation of State operating budgets over time, in net present value terms.

Further questions are, if there is a difference, what is it, and is it important to achieving equalisation? Most annual State budgets do not include expenses relating to a return on equity used to finance service provision infrastructure, although some do in the form of capital use charges or actual leasing costs. If States use a different mix of borrowing and equity to finance infrastructure, are we biasing the needs calculations by not assessing needs relating to all relevant costs?

12. ***For the Working Party.*** Consideration of the above questions will allow the Working Party to determine whether or not a change to the existing theoretical approach to the depreciation and debt charges assessments is required. The Working Party will need to clearly explain in **practical** terms the difference between equalising operating budgets on an

annual basis and over time in net present value terms. It will also need to evaluate the advantages and disadvantages of each approach.

## THE DEBT CHARGES ASSESSMENT

### *The Framework*

13. The Debt Charges assessment uses a budget deficit framework to quantify States' borrowing needs and their costs. States need to borrow to fund their accumulated standardised budget deficits (both capital and operating). The debt charges which must be met in any one year reflect the ongoing impact of deficits accumulated over many years. The data series used in assessing debt charges assumes that no outstanding debts predate 1961-62. The calculation of debt charges relies on a range of information provided in the GFS and FALS series of State financial transactions published by ABS as well as Commission data. Final calculation of debt charges is calculated by the Commission, adjusted for the scope of its standard budget.

14. Borrowing costs are estimated by reference to differences in what it costs States to borrow – primarily the interest rates they face. These are adjusted to exclude the effect of State policy differences. Differences in the scale of borrowings are accepted as a valid reason for interest rate differences. Poor economic management is not.

15. Thus, the Commission assesses disabilities for both demand and cost influences when estimating States' standardised expenditures on debt charges. A State's category factor is calculated by multiplying its assessed demand factor by its cost factor. The two disabilities are defined as follows:

- (i) the demand disability reflects differences in the amounts States have had to borrow ('the debt quantity'). The debt charges framework is used to calculate this quantity. It assumes that the quantity of debt needing to be held by a State depends on the accumulated standardised deficits<sup>2</sup> on State capital budgets, plus the accumulated standard deficits on operating budgets.
- (ii) the cost disability reflects differences in the unit borrowing costs faced by the States, adjusted for policy differences. The disability is based

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<sup>2</sup> The standardised deficit on the capital budget is calculated by:

- (i) calculating standardised capital expenditures (by multiplying the standard expenditure by the capital disabilities calculated in the Depreciation assessment [weighted by 0.75] and the general recurrent disabilities calculated for the review or update year [weighted by 0.25]); and
- (ii) subtracting funds available to fund those expenditures (including standardised depreciation, capital grants and other capital revenues).

on information available about interest rate charges and information on why interest rates differ between States.

16. In the debt charges framework, the components used to derive the deficits in each year, from 1961-62 to the present, are standardised. Populations and disabilities<sup>3</sup> that are relevant to each year are used to standardise capital expenditures and depreciation. This approach is intended to convert the relevant stock disabilities from the depreciation assessment to a flow basis. Debt charges needs are calculated on a flow basis because the population characteristics and prices applying at the time capital assets are purchased are directly related to a State's decision to enter into any debt. Also, debt incurred in past years is not revalued, unlike the capital stock that it might have funded.

17. There are problems with the methods used in the debt charges assessment. Western Australia, in particular, has argued that:

- (i) the flow approach to the measurement of disabilities has not been properly implemented because the Commission has used disabilities largely relevant to capital stockholdings rather than capital expenditure requirements<sup>4</sup>;
- (ii) major proportional changes in State grant distributions may arise as 'standard expenditure' for the category becomes smaller; and
- (iii) the use of different data series in the calculations means there is no comparability between figures.

18. ***For the Working Party.*** The Working Party will need to identify where the debt charges assessment is deficient, and how it might be improved. For example:

- is the use of the current framework the best way to quantify debt charges disabilities?
- is the framework correctly specified?
- how should the components of the framework be standardised - capital expenditures, revenues, grants, etc?
- how might the flow approach be properly implemented in the measurement of disabilities? and
- are the data good enough, or sufficiently relevant to the standard budget, to support the use of the framework?

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<sup>3</sup> Populations relevant to each year are used to calculate standard values for all components except capital grants. From 1991-92, the actual per capita amount each State received in the year is included for capital grants.

<sup>4</sup> See pages 342 and 362 of Volume III of the *Report on General Revenue Grant Relativities 1999* for relevant analyses.

### ***Potential Double Counting***

19. Double counting exists where the same disability, or some element of it, is taken into account in calculating State grant shares either twice in one category assessment or in more than one category. Obviously, the Commission seeks to avoid any double counting in its assessments.

20. South Australia raised the issue of whether needs relating to capital expenditures should be recognised in the debt charges assessment if they are properly assessed in the Depreciation assessment.

21. The view that the inclusion of depreciation would lead to double counting in the assessments was originally raised in the New South Wales and Victorian submissions to the 1999 Review. Those States believed that a depreciation assessment, using accurate data, would fully reflect the need for consumption of capital within the general government sector. The Commission could then cease assessing the effects of debt holdings on State operating budgets.

22. South Australia noted that these issues had not addressed fully during the 1999 Review and presented it for re-consideration.

23. The Commission was aware of this view during the 1999 Review. However, it concluded that the debt charges assessment would not be made redundant by the introduction of the depreciation assessment because the latter recognised only the States' use, or consumption, of capital in a year. As States are likely to continue to need to borrow to fund new capital (particularly the faster growing States) and any future deficits, the debt charges assessment was still required.

24. The accumulated standardised depreciation assessed by the Commission, which is deducted from standardised capital expenditures to calculate the deficit on the capital budget, may be sufficient to remove the need for any State to borrow to fund capital expenditures. In such situations the demand factors in the debt charges assessment would relate only to the accumulated standard deficits on State operating budgets. The debt charges assessment would then relate solely to interest rate disabilities on accumulated standard operating deficits.

25. ***For the Working Party.*** The Working Party will need to resolve these issues.

## **THE DEPRECIATION ASSESSMENT**

26. The depreciation assessment was designed to allow States to fund annual depreciation of a standardised level of capital stock. The Depreciation category is divided into components to individually identify depreciation on buildings, other construction, plant and equipment, welfare housing, urban transit construction, and urban transit plant and equipment. A small isolation component was also included. Disability factors cover demand, cost and asset life disabilities in each major component.

27. The assessment has been criticised for a number of reasons. States have said that:

- (i) not all relevant disabilities have been included in the assessments – Victoria asked why some disabilities had not been assessed;
- (ii) the methodology used in some disabilities was defective – for some States the inclusion of disabilities from recurrent expenditure based assessments presented problems, for others the new capital stock factors were thought to be supported by inadequate data; and
- (iii) the data used were not always reliable – the Commission has already noted that the lack of reliable data made it difficult to develop the disability assessments.

28. In addition, the Working Party discussed issues relating to the asset life, isolation and construction costs assessments.

29. Western Australia is not currently opposed to the existing stock approach, but suggested that the stock versus flow issue be re-examined in the context of the depreciation assessment.

30. Queensland suggested that the Working Party consider alternative methods for calculating the standard. The ToR for the Working Party tells it to ‘accept the current approach to the determination of the depreciation standard (until comparable accrual data become available)’. This is because the Commission considers further work on estimating the standard unnecessary until we know whether ABS’s accrual GFS will provide comparable data. An early examination of the available 1998-99 data suggest that, although there are considerable variations between GFS data and estimates for individual States, the effect on the standard and on grant shares of changing to the GFS numbers would not be material. Commission staff believe that the Working Party has more to gain through consideration of other issues at this stage and that the guidance provided by the terms of reference should be accepted.

31. ***For the Working Party.*** The Working Party will need to address:

- the appropriate breakdown of the category into components, particularly whether to continue with the urban transit components;
- what types of disabilities should be assessed; and
- how the disabilities should be assessed, and what data are available for this.

### ***Disabilities Assessments***

32. The current disability assessments and its impact on grant distribution has been criticised by the States. The criticism ranged from the choice of disabilities included to the data used in making an assessment.

33. The Working Party will need to identify what disabilities are faced by States in funding their annual depreciation expenses. It will also need to develop methods for calculating agreed disabilities, using available data. Where data are unavailable, it will need to decide whether it should attempt to develop appropriate data sets.

34. The June 2000 Working Party meeting discussed a number of issues relating to disabilities. These are summarised below.

35. ***The asset life factor.*** The asset life factor compensates States for reduced asset life north of the Tropic of Capricorn (and throughout the Northern Territory). This assessment allows for the conditions encountered in the north, which degrade assets faster than in southern States. It allows a 20 per cent faster depreciation of northern based buildings and other construction assets (including urban transit construction) and a 15 per cent faster degrading of all types of plant and equipment.

36. The June 2000 meeting generally accepted that the physical environment influenced depreciation rates. However, it noted that a review of how the factor was calculated was required, including whether some regions south of the Tropic also faced environmental conditions that led to shorter asset lives.

37. ***Construction costs – Rawlinson’s index.*** The construction costs factor is derived from the indexes in Rawlinson’s *Australian Construction Handbook*. Use of this commercial index of building costs has the advantage of reflecting actual differential costs encountered. The index is a comparative costing of facilities across States and within States.

38. In developing the Review assessment, the Commission accepted that the costs of a building’s construction involve more than the costs of its inputs (materials and labour), as reflected by Rawlinson’s index. It agreed that there was ‘substantial policy contamination’ in construction costs, such as when a State waives payroll taxes or workers’ compensation levies for particular building projects. The depreciation assessment therefore uses a ‘combined construction index’, comprising Rawlinson’s unweighted regional index and the 5-year average of its capital city index, discounted by 50 per cent to take account of any policy influences.

39. The meeting of the Working Party raised concerns similar to those raised during the Review. Victoria noted that it had identified other indexes that might form a better basis for the calculation of the construction costs factor.

40. ***Application of recurrent based disability factors.*** The demand factors applied to capital related expenditure within the assessment are derived from the factors assessed for recurrent expenditure, applied as a proxy of the community requirements States meet through their capital investments. They relate to the population concentration and socio-demographic composition factors.

41. Some States, notably Victoria, Western Australia and South Australia, raised concerns about the applicability of recurrent expenditure related factors to capital related disabilities. They noted that, in many cases, these assessments had the opposite effects on grant distribution to similar factors applied to non-capital related functions such as health

and education. They were concerned about possible double counting of disabilities between the depreciation assessment and the recurrent assessments. The additional housing cost associated with Aboriginal occupancy was given as a possible example.

42. ***Double-counting arising from the isolation component.*** The isolation component is derived from the isolation assessment method applied to all relevant recurrent expenditure related assessments. It takes account of the differential costs which States bear because of the location of their capital cities relative to other capitals and their distance from sources of supply.

43. New South Wales thought that the differential input costs covered by the isolation component might double count other disabilities dealing with costs. In particular, the construction costs factor (covering buildings and other construction) and dispersion (applying to plant and equipment) might already reflect freight costs included in the isolation component.

44. ***For the Working Party.*** Concerns about any aspects of the disabilities need to be clearly articulated, and options for solution proposed.

#### ***Urban Transit (UT) Components within the Assessment***

45. The Working Party noted the disproportionate influence of the urban transit components in the assessment. Queensland, in particular, expressed its concerns at the grant shares which related to the large disabilities assessed for States that operate underground urban rail networks.

46. How the 2000 Review might treat States' costs associated with urban transit is currently being examined as a separate project. The outcome of that project will guide the treatment of urban transit within the depreciation assessment.

47. The capital stock involved in urban transit could be removed completely from the category's scope. This would happen if the Commission found that urban transit stock is no longer owned by States or depreciated in the States' budgets, although they may be making a contribution to its cost through a Community Service Obligation payment to the provider. If States are contributing to capital costs through the payment of Community Service Obligations, then it would be more appropriate to recognise State needs within the proposed Urban Transit - Concessions and Other Payments category. *Discussion Paper CGC 2000/2*, which sets out the Commission's proposals for the assessment of urban transit, states that the urban transit category will include the impact of related depreciation and debt charges.<sup>5</sup> This would mean the components would be removed from future depreciation assessments.

48. ***For the Working Party.*** To ensure consistency, the Working Party will need to be kept informed of developments concerning the possible future treatment of

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<sup>5</sup> See paragraphs 25 and 26, which identify the impact of moving Urban Transit to a Concessions and Other Payments approach on the depreciation and debt charges categories.

expenditure associated with urban transit services. Commission staff will ensure that this occurs.

### **FUTURE TREATMENT OF CAPITAL RELATED SPECIFIC PURPOSE PAYMENTS (SPPS)**

49. The Working Party has already noted that capital SPPs are only taken into account in the debt charges framework to calculate the accumulated deficit on the capital budget. In the framework, capital SPPs are deducted on an EPC basis for the period from 1961-62 to 1991-92, and actual per capita for the period thereafter.

50. The ToR for the Working Party ask it to review the treatment of capital SPPs within the assessments. There was considerable discussion during the 1999 Review about whether the approach finally adopted adequately recognised the extent to which the SPPs were available to meet States' needs. Views were put that capital SPPs should be treated in the same way as recurrent SPPs. There was also a belief that the two approaches were equivalent in net present value terms.

51. *For the Working Party.* Comments are sought on this issue.

### **OTHER CAPITAL RELATED ASSESSMENTS**

52. As well as the existing depreciation and debt charges assessments, the Working Party will need to examine the assessments for:

- (i) interest earnings;
- (ii) repairs and maintenance of capital stock;
- (iii) capital leasing costs;
- (iv) the adequacy of the assessments for Roads repairs and maintenance, and Category D expenditure: and
- (v) the adequacy of the assessments of Housing repairs and maintenance.

53. Interest earnings are presently assessed EPC and needs associated with repairs and maintenance and leasing costs are not explicitly assessed for most functional categories. No special factors are included in the assessments except for the Roads and Housing categories.

54. *For the Working Party.* The Working Party will need to consider whether existing assessments adequately recognise needs or whether changes should be made. Potential interactions with other assessments should also be identified.

## DATA

55. Improving the data available for use in the assessments should be a major focus for the Working Party. Many of the concerns about the assessments stem from data limitations. The Working Party needs to identify better data sources or develop new data collections to enable demand and cost differences to be better quantified. It may also need to develop estimation procedures where data are not currently available.

### WORKING PARTY'S FUTURE TIMETABLE

Date	Activity
Mid-October 2000	Submissions due
Mid-November 2000	Second meeting of Working Party to decide direction of work and timing. An annotated agenda will be circulated before the meeting.
2001	Other meetings, as necessary, to progress assessments and other responses to terms of reference.
June 2002	Draft Report of Working Party, which will include draft assessments, as available.
August 2002	Report to Commission.

## **TERMS OF REFERENCE WORKING PARTY ON THE DEPRECIATION AND DEBT CHARGES ASSESSMENTS**

1. A Working Party of the Commonwealth Grants Commission and Treasury officers is to be set up to review the depreciation and debt charges assessments developed in the 1999 Review. The Working Party is to provide advice to the Commission on options to allow the recurrent impact of capital on State needs to be represented more appropriately in the 2004 Review outcomes. The party will be known as the Working Party on the Depreciation and Debt Charges Assessments but will also consider other assessments.

2. The Working Party will proceed from the general approaches adopted in the 1999 Review to assessing the operating impact of capital, and will:

- (i) take account of the Commission's view that the assessments should allow States to fund standardised levels of depreciation, debt charges and other recurrent impacts of capital expenditure;
- (ii) accept the current approach to the determination of the depreciation standard (until comparable accrual data become available);
- (iii) examine ways to enhance the current assessments of disabilities;
- (iv) develop more robust measures of these disabilities; and
- (v) work to ensure that comparable State data are available for these measures in this and subsequent Reviews.

3. The Working Party will need to re-examine the 1999 Review approach to assessments for:

- (i) depreciation;
- (ii) debt charges;
- (iii) interest earnings;
- (iv) repairs and maintenance of the capital stock; and
- (v) elements of the above included in lease costs.

4. In addition, proposed assessment approaches will need to deal with:

- (i) the interaction of the five expenditure impacts mentioned above, especially that between depreciation and debt charges; and
- (ii) the treatment of capital specific purpose payments.

5. The Working Party will have its first meeting during June 2000, and will then prepare a discussion paper outlining the major issues to be examined and the proposed methods by which they are to be addressed. This discussion paper should be available for consideration by the Commission as soon as possible following the initial meeting. The Working Party will provide its final report to the Commission in August 2002, in time for the general conference in October 2002.

6. The Working Party will be chaired by a Commission staff member and other Commission staff will be available to provide research and administrative support as required.

**WORKING PARTY MEMBERS  
(Attendees at the meeting held on 23 June 2000)**

**State/Commonwealth Representation**

New South Wales	Michael Clark-Lewis and Sang-Hee Han
Victoria	Andrew Trembath;
Queensland	Robert Flanagan and Alex Miller;
Western Australia	Mark Altus and Alex Scherini;
South Australia	Robert Schwarz and John Henderson;
Tasmania	Tony Jacques;
Australian Capital Territory	Roger Broughton and John Purcell;
Northern Territory	Ashley Chamberlain; and
Commonwealth Treasury	Matthew Bishop.

**Commonwealth Grants Commission**

Catherine Hull

Marc Boisseau

Ian Graham

Stephen Tregea-Collett

Kiri Phaal

James Johnson

Allison Shoobridge