Australian Government

Commonwealth Grants Commission

2020 REVIEW

IMPROVING THE POLICY NEUTRALITY OF THE MINING REVENUE ASSESSMENT

STAFF DISCUSSION PAPER
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CONTENTS

BACKGROUND

The proposed Mining revenue assessment

1 In April 2018, the Commission released a Draft Assessment Paper (DAP) on Mining revenue. In the DAP, Commission staff proposed retaining the 2015 Review assessment approach, but introducing two adjustments to improve its policy neutrality.[1]

2 Under this approach, mining capacity would be assessed using a mineral by mineral approach — with separate assessments of iron ore, coal, gold, onshore oil and gas, copper, bauxite, nickel and all remaining minerals. The capacity measure would be value of production. Grants in lieu of royalties would continue to be assessed on an actual per capita basis.

3 The first of the two policy neutrality adjustments addressed **the dominant State problem**. When a mineral base is concentrated in one or two States (such as iron ore in Western Australia), the policies of those States have a dominant role in determining the average policy. In these situations, an individual State's policy could become the average policy and its own choices could directly influence the GST it receives — implying the mining assessment was not sufficiently policy neutral. Commission staff proposed an adjustment whereby 50% of revenue from a dominant State's discretionary rate change would be assessed equal per capita (EPC).

4 The second adjustment addressed **the banned mineral problem**. For some minerals the distribution of the revenue base is unclear, such as when some States ban or discourage mineral extraction. Commission staff proposed an adjustment whereby all revenue from banned minerals would be assessed EPC.

5 The first adjustment received little support from States in their responses to the DAP. Most said it was inconsistent with HFE and a departure from full equalisation. While the second adjustment received more support, Western Australia queried the selectivity of adjusting for mining bans but not other State policies.

The Productivity Commission report

6 The Government released the Productivity Commission's (PC's) final report on Horizontal Fiscal Equalisation on 5 July 2018.[2] The PC criticised the proposed mining assessment for:

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1 The two policy neutrality adjustments were first referred to by the Commission in Commission Position Paper CGC2017-21 *The Principle of HFE and its Implementation*.

2 Productivity Commission, 2018, *Horizontal Fiscal Equalisation*, Report no. 88, Canberra.

- not being policy neutral
- creating adverse incentive effects.

7 The PC's policy neutrality concern was the dominant State problem identified by the Commission. The PC concluded aggregation could improve the assessment's policy neutrality. It suggested two policy neutral capacity measures:

- aggregate mining profits
- aggregate value of production.

8 The PC also criticised the proposed mineral by mineral approach for creating the conditions for adverse incentive effects to arise. States that increased mineral production or royalty rates could lose much of the additional revenue to equalisation — such that they retained as little as their population share of any increase in revenue or bore as little as their population share of any decrease. The PC concluded aggregation could reduce these adverse incentives.

The Government's response to the PC report

9 Following the PC's report, the Government signalled its intention to transition from a system of full equalisation to a system of reasonable equalisation. Under reasonable equalisation, each State will be equalised to the fiscal capacity of the stronger of New South Wales or Victoria.

10 In order to ascertain the fiscally stronger of these two States, the Commission will need to continue to determine States' relative fiscal capacities. Indeed, the no worse off provisions of the legislation requires the Commission to produce relativities as if the *Treasury Laws Amendment (Making Sure Every State and Territory Gets Their Fair Share of GST) Act 2018* had not been enacted. The no worse off provisions require the Commission to produce relativities on a full equalisation basis. To support this, its assessment methods must continue to capture States' relative fiscal capacities.

11 While the Commission is sensitive to improving the policy neutrality of the mining assessment, any change cannot be to the detriment of capturing States' relative fiscal capacities. Under full equalisation, the mining assessment needs to capture the differences in revenue capacities arising from the uneven distribution of minerals.

ISSUE

12 The volatile nature of mining[3] and the uneven distribution of minerals means developing a methodology that appropriately captures States' relative fiscal

[3] In its response to the PC's report, the Government cited the mining boom as having created extraordinary volatility in the GST distribution, resulting in declining community confidence in Australia's HFE system. It said less volatility would be a virtue of the new system.

capacities has posed greater challenges for past and present Commissions than other areas of State revenue.[4]

13 In the light of the PC's criticisms, and the Government's subsequent response, Commission staff are considering options for improving the policy neutrality of the mining assessment. We are seeking States views on whether the Commission should move away from its mineral by mineral approach and, if so, how it should assess mining capacity in the 2020 Review.

14 State views are sought by 25 January 2019.

OPTIONS FOR IMPROVING POLICY NEUTRALITY

15 In considering the approaches favoured by the PC, there appear to be three options for improving policy neutrality:

- an aggregated profitability approach
- an aggregated value of production approach
  - with a single mineral group (full aggregation)
  - with two mineral groups.

16 Staff have a number of concerns over the viability of a profitability approach. As the PC itself acknowledged, a profit-based approach could face practical difficulties. It would be highly sensitive to price and cost changes and, therefore, volatile. Any change that increased the volatility of the mining assessment would be inconsistent with the Government's desire to move to a more stable distribution system.

17 In addition, it might also be difficult to develop reliable profitability measures for all mining activities. Commission staff have been in discussions with the Australian Bureau of Statistics (ABS) about the possibility of obtaining mining profitability data by State. The ABS advises it is not able to provide State based profit data. For this option to progress, the Commission would need to develop its own profitability measure and find data to implement it. This is unlikely to be practical for the 2020 Review.

18 Finally, profitability represents a departure from what States do. Whilst royalty rate levels might reflect underlying profitability, they tend not to change frequently and are applied to production rather than profitability. That is, States do not tax profitability, they tax production.

19 Western Australia proposed a fourth option, which it said would also address the issue of the sensitivity of States' GST revenue to royalty rate changes (these were the adverse incentive effects identified by the PC). Western Australia suggested

[4] See also Information Paper CGC 2015-07 *History of the Mining Assessment*.

aggregating the mining revenue base with the other tax bases through a global assessment. It outlined two possible global capacity measures — adjusted Gross State Product and an aggregation of the existing revenue bases. It believed either measure would address the extreme differences in sensitivity to rate changes that existed between taxes and minerals.[5]

20 Commission staff have concerns with this option. While it would improve policy neutrality, it would do so by producing unrepresentative revenue capacities. They would be created by averaging a State's relative capacity to raise tax revenue with its relative capacity to raise mining revenue. Counter to Western Australia's view, Commission staff do not consider these averaged revenue capacities would reflect States' underlying revenue capacities.[6]

AN AGGREGATED VALUE OF PRODUCTION APPROACH

21 The PC said the advantages of an aggregate mining production approach were:

- it was simpler than a mineral by mineral approach.
- it was more policy neutral because individual States had less scope to influence their GST payments by changing the royalty rate on a single mineral.

22 The PC acknowledged some policy neutrality problems would remain. It noted Western Australia's iron ore comprised about 40% of the value of all mineral production in 2015-16, meaning that changes in its royalty rate could still have a material influence on GST shares.

23 Staff consider there are two aggregation options worth exploring.

Option 1 — full aggregation

24 Under full aggregation, all minerals would be assessed in one group. Table 1 shows States' population shares, their shares of value of production for all minerals and the corresponding sensitivity to royalty rate changes (which is the difference between the two). It shows full aggregation would remove the more extreme sensitivities that exist under a mineral by mineral approach.

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5 Western Australia noted that for some minerals, there were five examples where a State's sensitivity to royalty rate changes exceeded 40%. This compares with the average sensitivity to tax rate changes of 5.5%. It identified this as a policy neutrality issue the Commission needed to address.

6 In April 2018, the Commission released a staff research paper, 2018-02-S, *A broader assessment approach*. The staff conclusions in that paper were that the taxable capacity differences under a global approach were substantially lower than under a tax approach, meaning fiscally weak States would have had to impose taxes and charges at rates above those of fiscally strong States, which would be inconsistent with HFE (as it was understood at the time).

Table 1 Sensitivity to royalty rate changes, full aggregation, 2016-17

Group:	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	%	%	%	%	%	%	%	%
Share of population	32.0	25.6	20.0	10.5	7.0	2.1	1.7	1.0	100.0
Share of value of production	14.8	1.0	27.3	51.0	2.9	0.9	0.0	2.0	100.0
Sensitivity to royalty rate changes (a)	17.2	24.6	-7.3	-40.4	4.1	1.3	1.7	-1.0	0.0

(a) This is a State's population share less its share of value of production.
Source: Commission simulation using State provided data.

25 Table 2 shows full aggregation would have changed States' GST shares by $330 million in the 2018 Update. Compared with the mineral by mineral approach, it would have increased the assessed capacities of Victoria, Western Australia, South Australia, Tasmania and the Northern Territory.

Table 2 Replacing the mineral by mineral assessment with an aggregated assessment, 2018 Update (a)

Aggregation option:	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
2018 Update	1 702	2 583	-825	-4 161	426	160	173	-58	5 044
Full aggregation	1 779	2 551	-573	-4 330	357	146	173	-104	5 006
Difference	77	-32	252	-169	-69	-14	0	-45	330

(a) This analysis excludes the effect of Grants in lieu of royalties.
Source: Commission simulation using State provided data.

26 Full aggregation addresses one aspect of policy neutrality — the dominant State problem. However, full aggregation can create its own policy neutrality problems.

27 Table 3 shows average royalty rates for minerals in the 2018 Update. Some States have a preponderance of base metals and other low value minerals, which attract a lower royalty rate than the average for all minerals. Under full aggregation, when production of those minerals increases, these States can lose more in GST revenue than they raise in royalty revenue. This reduces their incentive to approve mining developments.

Table 3 Average royalty rates by mineral, 2018 Update

	Iron ore	Coal	Onshore oil and gas	Bauxite	Copper	Nickel	Nickel	Other minerals	Average – all minerals
	%	%	%	%	%	%	%	%	%
2013-14	7.1	8.0	8.0	9.8	3.3	2.5	2.6	4.4	6.5
2014-15	7.2	6.9	9.5	10.1	3.7	2.8	2.4	3.7	6.2
2015-16	7.3	7.5	9.8	10.2	3.5	2.8	2.1	4.8	6.4
2016-17	7.3	8.5	10.2	9.9	3.4	2.7	2.1	5.1	7.0

Source: State provided royalty revenue and value of production data.

28 Table 4 shows Victoria, South Australia, Tasmania and the Northern Territory have almost none of the minerals that attract the highest royalty rates.

Table 4 Share of value of production, two group option, 2016-17

Group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	%	%	%	%	%	%	%	%
Major minerals (a)	15.7	0.4	30.6	51.5	1.0	0.4	0.0	0.4	100.0
Other minerals	11.5	3.4	15.2	49.1	10.0	2.7	0.0	8.2	100.0

(a) This group comprises iron ore, coal, bauxite and onshore oil and gas.
Source: State provided value of production data.

29 Thus, the distribution of incentives under full aggregation would vary across States according to the composition of their minerals — potentially favouring the developments for minerals with the highest royalty rates (coal, onshore oil and gas and bauxite) over other minerals.

30 Western Australia does not believe full aggregation addresses its concerns over the difference in sensitivity to rate changes between taxes and minerals. It proposed a variation — full aggregation with a fixed uniform standard royalty rate, which would not change when States changed actual royalty rates. It suggested a fixed rate of 5% or 6%.

31 Staff consider there are two concerns with its proposal. Firstly, it would apply the same rate to minerals that attract a low royalty rate as to those that attract a high royalty rate and so would create the same adverse incentives as full aggregation. Secondly, it would effectively discount the mining assessment. The discount would be the difference between the average royalty rates in Table 3 and the fixed rate. For the 2018 Update, a 5% rate would be similar to introducing a medium discount and a 6% rate would be similar to introducing a low discount. In its report, the PC said discounting the mining assessment was inconsistent with the broad objective of HFE.[7]

7 Op cit, page 210.

Option 2 — two mineral groups

32 One way of addressing the adverse incentives of full aggregation is to aggregate minerals into two groups. Compared with full aggregation, the two group option may provide a better balance between:

- what States do — they apply higher royalty rates to some minerals
- policy neutrality — it avoids situations where a State has such a dominant share of a mineral base that its policy becomes the average policy.

33 Table 5 shows sensitivities to royalty rate changes for both mineral groups. Like full aggregation, the two group option removes the most extreme sensitivities to changes in royalty rates.

Table 5 Sensitivity to royalty rate changes, 2016-17

Group:	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	%	%	%	%	%	%	%	%
Major minerals (a)	16.3	25.2	-10.6	-40.9	6.0	1.8	1.7	0.6	0.0
Other minerals	20.5	22.2	4.8	-38.5	-2.9	-0.5	1.7	-7.2	0.0

(a) This group comprises iron ore, coal, bauxite and onshore oil and gas.
Source: Commission simulation using State provided data.

34 Table 6 shows the two group option would have changed States' GST shares by $232 million in the 2018 Update. It would have increased Western Australia's assessed capacity and reduced the capacities of other States. Compared with the full equalisation option, it would reduce the assessed capacity of Victoria, South Australia, Tasmania and the Northern Territory.

Table 6 Replacing the mineral by mineral assessment with an aggregated assessment, 2018 Update (a)

Aggregation option:	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
2018 Update	1 702	2 583	-825	-4 161	426	160	173	-58	5 044
Two group option	1 729	2 592	-696	-4 393	459	166	173	-29	5 118
Difference	27	8	129	-232	33	6	0	29	232

(a) This analysis excludes the effect of Grants in lieu of royalties.
Source: Commission simulation using State provided data.

35 The Commission was criticised for implementing a two group approach in the 2010 Review, particularly because of the GST effects that arose from minerals switching between groups.[8] A way of avoiding these adverse effects would be to freeze the composition of the mineral groups for the duration of the review.

8 Following the 2010 Review, Western Australia changed its royalty rate on iron ore fines (then a low royalty rate mineral). Its changes meant iron ore fines would eventually have the same royalty rate as

The proposed policy neutrality adjustments

36 In the DAP, Commission staff proposed introducing two adjustments to improve the policy neutrality of the mining assessment. The dominant State adjustment proposed treating 50% of any revenue from a discretionary rate change by a dominant State EPC. The banned mineral adjustment proposed treating all revenue from a banned mineral EPC.

37 There is a question whether either adjustment is required under greater aggregation.

38 The PC concluded that aggregation addressed the dominant State problem. If so, a dominant State adjustment may not be required under either the full aggregation or the two group option.

39 The PC noted the banned mineral adjustment, but made no comment. While States generally supported an EPC assessment, there were some concerns. Victoria and Western Australia questioned whether bans have a material effect in every State. Victoria said it had no proved or probable onshore conventional or unconventional gas reserves. Western Australia said its ban on hydraulic fracturing was largely irrelevant because of the high cost of developing shale gas resources. An EPC assessment for all States would benefit those that had viable resources. Western Australia raised an additional concern (intertemporal equity) — whether it would be fair to assess coal seam gas (CSG) royalties EPC when Queensland was extracting it, but to impose a differential assessment when all States started to extract it.

40 If, under greater aggregation, banned minerals were not assessed EPC then potential options would be to:

- leave the banned minerals where they are currently assessed[9]
- assess all banned minerals in the Other minerals group
- assess a portion of the revenue from banned minerals EPC.

CONCLUSIONS

41 Mining revenue is an area where policy neutrality concerns can arise when a State has a dominant share of the production of a mineral. In these circumstances, its policy can become the average policy for that mineral. These concerns led the PC to criticise the proposed mineral by mineral assessment as not being policy neutral. The

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lump iron ore (a high royalty rate mineral). Western Australia argued that iron ore fines should not be shifted from the low group because to do so would mean its loss in its GST revenue would exceed the increase in its revenue from higher royalty rates. The Commission received terms of reference in the subsequent updates instructing it to leave iron ore fines in the low royalty rate group.

9 Currently CSG is assessed with onshore oil and gas and uranium is assessed with other minerals. Under the two group option, CSG would be assessed in the Major minerals group and uranium in the Other minerals group.

PC also criticised the assessment for creating adverse incentive effects. In the light of these criticisms, Commission staff are considering options for improving the policy neutrality of the mining assessment.

42 The PC concluded aggregation would improve the assessment's policy neutrality and it suggested two policy neutral capacity measures: aggregate mining profits and aggregate value of production.

43 If a profits approach could be made to work, it might solve the policy neutrality problems. However, there are practical difficulties with developing a profits approach, not least obtaining profits data on a State basis. The greater volatility of a profits approach would be inconsistent with the Government's desire to move to a more stable distribution system. In addition, it is unlikely a profits approach could be developed in time for the 2020 Review.

44 Full aggregation would address one aspect of policy neutrality (the dominant State problem), but it would raise its own policy neutrality issue. It would create adverse incentives that would vary across States according to the composition of their minerals. Aggregation into two groups would reduce these adverse effects.

45 There is a question whether either of the policy neutrality adjustments proposed in the DAP would be required under greater aggregation.

46 Commission staff are seeking State views on whether the Commission should improve the policy neutrality of the mining assessment and, if so, how it should do that.

47 State views are sought by 25 January 2019.

SEEKING STATE VIEWS

State views are sought on:

- whether the proposed mining assessment for the 2020 Review should be changed to improve policy neutrality
- if so, how mining capacity should be assessed in the 2020 Review
- if mining is assessed using either the full aggregation or the two group option, whether either of the policy neutrality adjustments proposed in the DAP are required?