

Comments on Independent Economics report for the SA Government, entitled “Horizontal Fiscal Equalisation: Modeling the welfare and efficiency effects”

Jonathan Pincus and Henry Ergas, 20 March 2012

A: General remarks

1. The report estimates that the efficiency gain from HFE in Australia for 2009/10 would have been \$295m, or about 0.025% of GDP.
2. This must be considered to be insignificantly different from zero, that is, smaller than the margin of error.
3. Almost every negative impact HFE could have on productivity is assumed away.
4. The report asserts that HFE contributes to equity. Yet the report assumes that, whether there is HFE or not, interstate migration causes living standards to be equalised across Australia—there is no inequality for HFE to operate on, in this model.

B: Mining royalties

5. The efficiency estimate is driven into positive territory mainly by the effects of distributing mining royalties on an EPC basis. If royalties were retained by the jurisdiction that earned them, then, according to the model, some Australians would move to the royalty-rich States merely to gain access to the benefits of the royalties (lower taxes and higher public spending per head). This would lower national productivity.
6. The model assumes that State governments have no effect on productivity of any industry. In particular, the model assumes that States have no effect on the extent or productivity of their mining industries. Mining resources are a gift of nature; they just appear; and when it makes sense to exploit them, they are exploited. The history of the efforts of the WA government (especially since the removal of the Commonwealth’s prohibition on exports of iron ore) to induce reluctant miners to develop the resources counts for nothing. So, for example, efforts by the SA Government to secure the extension of Olympic Dam are assumed to have no effect on the timing of that extension, or on any aspect relevant to productivity.
7. The model assumes that State governmental decisions are in no way affected by the process of HFE. So, in particular, the fact that the SA government will retain only 7.5% of the Olympic Dam royalties (that is, SA’s population share) in no way will have affected the timing and nature of the indenture agreement; and in no way induced the State to bargain with the companies for some benefits that would not be subject to the HFE process, but which were less

efficient than cash. As a result, the model cannot explain the widespread phenomenon of State governments imposing on mining companies inefficient requirements 'in kind' (such as obligations to develop towns or other infrastructure) as against imposing efficient taxes and using the proceeds to meet their objectives.

8. If the extremely high HFE 'tax rates' on royalties caused a reduction in mining productivity and output, of one quarter of one per cent, then the efficiency gain estimated by IE would disappear entirely.
9. In arriving at the estimated efficiency gain of \$295m, the modellers assumed that all data were as of 2009/10, except that mineral prices were set 26% higher than their actual 2009/10 levels. The adjustment to mining prices was to bring them closer to their predicted levels. No doubt, the economy of 2009/10 displayed other unusual aspects; but mining prices were adjusted, and them only, presumably because of their salience to the estimate of gain: the modellers reports that the gain falls to \$190m when mineral prices were assumed to be only 13% higher than the actual 2009/10 levels.

C: Dynamics neglected: barriers to interstate mobility

10. The model uses comparative statics: that is, it compares a given world with HFE, to a hypothetical world without HFE; and assumes full economic adjustment in both worlds. Therefore, the model is unable to examine the real world transitional problems of the mining boom that are at the heart of the current debate.
11. The boom in mineral prices has led to a boom in mining in WA (and elsewhere), which has increased the demand for labour in WA. No reference is made to the continuing outcry that Australians are too reluctant to move to WA. According to Anne Garnett (Economic Papers, March 2012: 69), during the second half of the 2000s, the net overseas migration to WA was six times the flow from other States.
12. The model assumes that there are no barriers to interstate movements, which are costless, and so the increased labour demand is met by interstate migration. However, there are sunk costs of moving, which hamper interstate movements. These include the psychological cost of disruption of social and family life, and the costs of finding new suppliers of goods and services, including a new school for children. Uncertainty about the outcomes of such moves makes them risky, requiring offsetting compensation if a move is to be made. But there are also artificial costs, like stamp duties on property transactions. These artificial costs mean that the flow of interstate migrants is too low and too slow, which is costly to dynamic economic efficiency.
13. A temporary offset to these artificial costs would be provided if WA offered a superior fiscal deal for all WA residents (or, ideally, one focussed on new residents). EPC treatment of mining royalties removes almost all of the funding of such efficiency-improving fiscal actions. All of this is absent from the model.
14. There is a transitional aspect to HFE because of lags in assessments: but the report treats this as being damaging to efficiency, since it deviates from strict

- EPC. There is also a relatively new capital treatment in HFE, designed to finance adjustments in public capital stock in response to increases in population.
15. The model assumes that all the labour attracted to WA, for example, during a minerals boom, comes from other jurisdictions in Australia; none from overseas. This may not matter much for the results of the model—without EPC of mining royalties, presumably an inefficiently large number of foreigners, as well as Australians, would be attracted to WA.
 16. But it would matter if, as most economists believe, there are economies of agglomeration—which are assumed away in this model. To the extent that the additional population in WA comes from overseas (and the ratio, cited earlier, was six overseas migrants to WA, to one from interstate), then Australia as a whole would gain from additional agglomeration economies (i.e. any gain in such economies in say Perth would not be offset by the loss of those economies in say Melbourne): and it would be a matter of calculation to estimate if the efficiency benefits from securing more of those economies offset the efficiency damage of excessive migration to WA when EPC of royalties is removed.
 17. The model assumes that sufficient Australians are mobile inter-state to equalise the standard of living in all jurisdictions. Since average price-adjusted GSP differs across States, equalisation of living standards is achieved by assuming that there is a compensating set of differences in the amenities of the various States. In the model, those compensating differences in amenities vary with changes in population: a 1% rise in population causes a 0.25% reduction in amenities. Adding 100 people to a population of 10,000 is assumed to cause the same proportional increase in congestion as adding 50,000 people to a population of 5 million.
 18. All private goods and services are traded internationally at exogenous prices. So, in particular, housing services are assumed to be available at constant prices and, therefore, do not vary with population. This is contrary to the lessons of urban economics (and ignores the objectionable CGC treatment of housing costs—see Abelson 2010; Pincus 2011.)

D: Conclusions

19. While the Report finds an efficiency gain from HFE, that finding relies heavily on the fact that the modellers:
 - i. Assume that HFE has no impact on the incentives State and Territory governments face to develop their tax base efficiently, notably with respect to natural resources; and
 - ii. Do not consider, or assume away, the issues that HFE creates to achieving substantial population shifts within Australia, as would seem needed to secure the full benefits of the resource boom.
 - iii. At the same time, the paper claims HFE advances equity, even though, by the assumptions made in its modelling, there is no difference whatsoever in the distribution of real income with HFE and without.