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## TREASURY

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Mr J Cosgrove  
Presiding Commissioner  
Impact of Competition Reforms  
Inquiry  
Productivity Commission  
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Dear Mr Cosgrove

### **INQUIRY INTO NATIONAL COMPETITION POLICY REFORMS IN RURAL AND REGIONAL AUSTRALIA**

Thank you for the opportunity to comment on the draft report for the Inquiry.

In general, the draft report is very useful and thorough. It is a valuable information source on National Competition Policy (NCP) which is much needed given the misinformation and limited knowledge there is about NCP in the community.

Treasury does, however, have some specific comments on the modelling undertaken for the Inquiry, which are attached for your consideration. The results of this modelling are important as they are likely to influence policy debate and receive significant publicity. This has already been highlighted by an article in *The West Australian* on the Inquiry which focused on the finding that employment would decrease in some regions as a result of NCP.

In this regard, I must emphasise that the finding that the Pilbara will benefit least of all of Western Australia's regions is highly counter intuitive, and may undermine the credibility of the estimated benefits for Western Australia. It may also risk misleading the debate and hamper further prospects of NCP, which would be most unfortunate.

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Yours sincerely

for UNDER TREASURER

21 July 1999

## **Western Australian Treasury Submission to the Productivity Commission's Inquiry into the Impact of Competition Reforms on Rural and Regional Australia**

The report is a substantial body of work and it is clear that much effort has been made to ensure the report is as rigorous as possible. Treasury is appreciative of the difficulties in undertaking such modelling.

Treasury's comments on the modelling undertaken by the Inquiry relate mainly to the 'tops-down' approach of the model and the model's assumptions. While we understand that it is the best model available at present, perhaps more can be done to ensure its accuracy.

It is noted that the findings of the Inquiry are based substantially on the submissions received and that the model results are taken as being "no more than broadly indicative". Such caution and qualification is sensible due to the inexact nature of the model and its simplifying assumptions. Unfortunately everyone exposed to the model's results or using the model's results may not make the appropriate allowances in interpreting them.

The main concern is the 'tops-down' approach and the implications this has for the results derived for Western Australia. The 'tops-down' approach involves applying national results to States and regions depending on the industries represented. In particular, the modelling of reforms for electricity and gas do not represent the impacts of these reforms in Western Australia.

### *Electricity and Gas Reforms*

For both electricity and gas, the 'tops-down' approach has involved averaging the impact of reforms from interconnection (which are only relevant to the eastern States) across all States. Therefore, the impacts of reforms in the electricity and gas industries as identified in the paper do not accurately represent the impacts of reforms conducted in Western Australia.

As energy reform offers the most significant potential gains to Western Australia it is important that they are accurately represented. The importance of gas reforms is highlighted in the draft report in the submissions from the Chamber of Commerce and Industry (Western Australia) and the Western Australian Chamber of Minerals and Energy.

The productivity improvements for electricity (a 50 per cent labour productivity improvement and a 4 per cent capital productivity improvement) were calculated by comparing productivity in electricity production in Australia with Canada. While this approach may be sensible on a whole of Australia level, it may be inappropriate for Western Australia due to geographical and demographic reasons.

This view is supported by the analysis of X-inefficiency conducted by Whiteman (1999)<sup>1</sup> provided in support of the estimates of productivity improvements. While this analysis shows that **average X-inefficiency** for Australia corresponds to the average productivity improvement being modelled in the report, it also shows that X-inefficiency in Western Australia is much lower than in other States. Using the SPF model of X-inefficiency the supplementary report shows X-inefficiency for Australia is 30 per cent, but only 3 per cent for Western Australia. Therefore the 50 per cent labour productivity improvements modelled for electricity would seem impractical for Western Australia.

Therefore, the 'tops-down' approach adopted by the Inquiry would tend to overestimate the gains from the reform of electricity in Western Australia.

The modelling of gas benefits would seem to be very arbitrary for Western Australia. The reforms are based on the benefits of interconnection for eastern States economies. This approach means that other significant benefits are not incorporated in the results for Western Australia, such as local improvements in competition and the development of new industries.

The modelling simply averages the productivity improvements from gas interstate connection and applies this average to all States and Territories. The report assumes that an average 4 per cent across-the-board productivity improvement arising from interconnection in the gas industry results in a 4 per cent price reduction across Australia. Therefore this approach overstates the gains from gas insofar as there is no interconnection for Western Australia - but understates the gains for the other States. This approach is justified by the Commission on the basis that NCP has facilitated the construction of the Goldfields gas pipeline, thus suggesting the construction of the Goldfields gas pipeline produces similar benefits to those of interconnection. This would appear to be an arbitrary approach to identifying reforms in Western Australia.

Even more importantly, the wider benefits from NCP in the area of gas have not been considered for Western Australia. For instance, productivity improvements and lower prices resulting from the introduction of competition in the gas market have not been fully acknowledged. Already in Western Australia there have been significant benefits from reforms in the gas industry.

The inaccuracy of the 'tops-down' approach, and the assumed productivity improvement, is demonstrated in the results achieved for the Pilbara - an area that has benefited significantly from the deregulation of the gas market, with the price of gas declining by around 50 per cent.

<sup>1</sup> Whiteman (1999) 'The potential benefits of Hilmer and Related Reform: electricity supply' *Australian Economic Review*, vol. 32, no. 1, pp. 17-30.

A further example of price reductions in gas is the recently announced 25 per cent fall in prices for the Goldfields gas pipeline resulting from further competition in gas.

The substantial impetus to development of new prospects is not captured by the modelling. This reflects the partial focus on impacts on existing industry only without capturing the benefits of new industry developments. This is a considerable area of benefit from reform in Western Australia's case. Indeed the modelling on the basis of national input-output tables fails to adequately capture the dynamics of the Western Australian economy. As this effect is not incorporated into the model, the benefits of gas reforms to areas in Western Australia which have the potential for new resource and processing industries will be understated.

The consequence is that some of the results for Western Australia appear contrary to actual experience and do not seem indicative of the impact of the reforms undertaken. The most notable example has been the considerable development of new industries in response to improved gas prices in the Pilbara. This has been highlighted by Professor Clements in his comments on the supplementary report.

In summary, the deregulation of gas markets has had significant positive benefits in Western Australia, which are likely to be far more than the 4 per cent price reduction assumed across Australia.

Therefore, it appears that the true benefits to Western Australia from the reform of gas and electricity markets are overstated in the case of electricity and substantially understated for gas. It is unlikely that these opposing estimates offset each other fully. To establish this, estimates for both gas and electricity would need to be made for Western Australia in terms of the potential for productivity improvements, changes in rates of return and price changes.

Results for Western Australia could be derived by using the FEDERAL (WA) model. This model has two main regions - Western Australia and the rest of Australia. In addition, the model breaks down Western Australia into nine regions (based on ABS classifications), in a similar manner to the Monash model.

More accurate results for Western Australia could be obtained by modelling Western Australian specific reforms in Western Australia and modelling the eastern States reforms (as modelled in the report) for the rest of Australia. The results obtained for Western Australia could be checked by comparing the results for the rest of Australia generated by the FEDERAL model with the results achieved for the rest of Australia using the Monash model.

### *Employment Results*

The employment results obtained from the modelling have been much publicised by the media in Western Australia. The results are also important to the State for policy purposes. As a consequence, it is important that any results published are reasonably accurate (or at least indicative).

If it is accepted that the current rate of unemployment is close to the natural rate (the Murphy model's calculation of the natural rate of unemployment of 7.5% is cited), then the assumption of no net change in employment appears to be the most appropriate way to proceed (rather than holding real wages fixed).

However, the Murphy model's natural rate of unemployment seems relatively high, particularly compared to the experience of other countries (unemployment rates in both the United States and the United Kingdom have been below 5 per cent for the past few years). While some of the differential may be due to differing wage determination processes and labour market flexibility, it would appear that the lack of mobility of labour across Australia would also be a factor. The assumption of full labour mobility in the model appears to be at odds with the assumed natural rate of unemployment and also at odds with the reality.

Full mobility would be consistent with a much lower natural rate of unemployment. With a lower natural rate of unemployment, and consequently a gap between the natural rate of employment and the current rate of employment, constant real wages would appear to be a more appropriate assumption rather than fixed employment.

It is understood that the 'tops down' approach does not allow labour mobility to be varied and therefore sensitivity analysis around the question of labour mobility cannot be conducted. If this is the case, then further caution should be given to the employment results.

Some discussion of alternative calculations of the natural rate, or at least some discussion of the merits of the approach used by the Murphy model would add depth to the analysis. There is no reference for the model and so the reader cannot independently check the assumptions made for the calculation.

Clearly, any impact reforms have on the natural rate of unemployment and the level of employment will impact on the results. The net employment result is obviously important to regional employment outcomes. The supplementary report also notes that a 3.93 per cent increase in national employment increases real GDP by 6.8 per cent which is 4.2 percentage points higher than in the base case. This shows considerable sensitivity of output to the employment results. As a result, the overall employment change from reform is critical in establishing the output effects.

Also, as employment growth, and changes to the natural rate of unemployment, are often put forward as benefits of reform, it would be useful to have an estimate provided of this in the model.

An additional simulation of the model holding real wages rather than employment constant would provide further insight to the employment and output picture for rural and regional Australia.

Due to the sensitivity and importance of the issue of employment, every effort should be made to ensure that the model results are realistic, and if not then strongly qualified or even referred to broadly but without providing seemingly precise estimates. In view of the uncertainties regarding the employment results, it would be helpful if an additional cautionary warning was given in relation to these results, as a minimum.

Another potential factor impacting on the results for the Pilbara is the methodology used in determining the output and employment results. Clarification is sought with respect to the methodology outlined on page 129, and whether or not it is impacted by the fly-in-fly-out arrangements outlined on page 114. In particular, is there any potential for employment and/or output benefits to be assigned to the region of residence rather than employment?

#### *Minor Corrections*

There is one minor mistake on page 100 of the draft report. The report notes that progress in implementing reforms in Western Australia has seen the "separation of electricity supply from water supply". This should read: "separation of electricity supply from gas supply".

It should be noted that there have been further developments in relation to the court case over Robe River's bid to gain access to Hamersley Iron's railway in the Pilbara (pg. 36). It would appear that the assumptions made by the Commission were appropriate in this instance.