

Victorian Response to the Wage Costs Assessment for the 2017 Update

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1. Introduction

Victoria has noted the content of the new issues paper on the wages assessment and its response is provided in the following sections. The main points of the response are as follows:

- the methodology should be modified to take into account the findings of the Commission's consultants regarding the factors that determine state public sector wages;
- the econometric model should include education variables;
- if the econometric model does not include a trade union membership variable then the discount applied should reflect the resultant statistical bias;
- if any adjustment is required for the Tasmanian results it should be done in conjunction with modification to the assessment methodology; and
- a rigorous approach to analysing the output of the econometric model is required.

2. The Wage Costs Assessment

Victoria is concerned that after a comprehensive review of the wage costs assessment, and despite the findings made by consultants engaged by the Commission, the assessment methodology for wage costs has been left unchanged. From the 2016 Update a new data source has been used, but this has been required due to the previous data source no longer being available.

The consultants main findings in regard to the assessment methodology are¹:

'The evidence supports the view that the states compete for workers in two labour markets simultaneously. One is the national labour market for public sector workers. In this case they must pay attention to the pay of comparable public sector workers in other jurisdictions. The other is the local labour market. In this case, they must pay attention to the pay of private sector workers in their own state'.

These findings indicate that the Commission's methodology is only taking one of the non-policy factors influencing public sector wages into account. The assessment will be overstating the impact of local labour market conditions on public sector wages.

Victoria considers that to prevent the current assessment methodology overstating the impact of local labour market conditions on public sector wages a discount beyond that required for data quality is warranted. A more preferable solution would be to modify the

1 Mahuteau, S., Mavromarasa, K., Richardson, S., and Zhua, R., *Public-Private Sector Wage Differentials in Australia*, paper presented to the Australian Conference of Economists 2015, p. 16.

assessment methodology, but this would not be feasible in the timelines required for the 2017 Update. However, the Commission should give priority to reviewing the methodology prior to the 2018 Update.

3. The Education Variables

Victoria agrees that educational attainment is an important driver of wage costs. Although it was not included as an explanatory variable in the econometric model estimated with 2014–15 data, this was due solely to the unavailability of education variables in the dataset.

The 2015 Compensation of Employees survey included educational attainment variables and these are expected to be included in future surveys. The results from the regression model indicates that there is a statistically significant impact of having a qualification relative to having a post-graduate qualification. Accordingly Victoria supports the inclusion of educational attainment variables in the econometric model.

Victoria notes that the inclusion of education variables is estimated to have a material impact on the 2016–17 GST distribution using the materiality threshold appropriate for datasets. This would appear to be the appropriate threshold to apply as the change relates to the dataset rather than the assessment methodology. Accordingly, Victoria supports the inclusion of education variables in the dataset used to estimate the econometric model.

4. The Trade Union Membership Variable

Victoria notes that the trade union membership variable is only available every second year and that excluding this variable from the 2014–15 data in the econometric model would have an immaterial impact on the 2016–17 GST distribution.

It is unfortunate that the trade union membership variable is not available annually as it was statistically significant in the econometric model using 2014–15 data. The omission of a statistically significant variable can lead to biased regression coefficients. This means that the model estimated without the trade union membership variable, either by omission when it is available or due to unavailability, will have biased estimates of the state impacts.

This can produce the situation where for alternate years the estimates of the econometric model could be either unbiased (when the trade union membership variable is included) or biased (when that variable is not available). The situation is further complicated by the inclusion of the trade union membership variable not having a material impact on the GST distribution.

For consistency it would be preferable to have the same specification of the model used for each year. If the trade union membership variable were to be excluded for consistency reasons then this could be accommodated by applying a discount to the assessment to account for potential bias in the results.

5. Issues from Previous New Issues Paper

5.1 The general discount

Victoria considers that there are two issues relevant to the amount of discount applied—the appropriateness of the methodology and the quality of the data used for the assessment. In earlier sections Victoria has presented an argument for a discount to be applied on the basis of methodology shortcomings.

Victoria considers that additionally a low discount should be applied for data quality reasons. Although the Compensation of Employees survey could be regarded as a quality dataset, it is none-the-less a sample of all employees so there is a degree of uncertainty that the results are an accurate portrayal of all employees. Also, the econometric model does not fully explain the variation in private sector wages and so there is a degree of uncertainty associated with the regression estimates. The model when estimated with data for 2014–15 explained 73 per cent of the variation in private sector wages.

5.2 State specific adjustment for Tasmania

The issue to be considered in regard to the results for Tasmania is whether its relative private sector wages were outside the range expected for public sector wages. The Commission's consultants note that for Tasmania (and also South Australia) ²:

'SA and TAS pay a low wage compared with other public sectors, but a high wage relative to their private sectors. They do so in an environment where their private sector pay is relatively low. It is likely that part of the market that they are competing with to obtain and retain their public sector workforce is not the local private sector labour market, but the local and national public sector market for the skills they want...'

This finding suggests that if there is a problem with the outcome for Tasmania this is a reflection on the assessment methodology and that the appropriate solution is to modify the assessment methodology rather than to apply an adjustment to the Tasmanian result. As argued above, due to the infeasibility of modifying the methodology in time for the 2017 Update, all results should be discounted and not just those for Tasmania.

5.3 The CSS adjustment

Victoria has previously stated that if this adjustment no longer has a material impact it should be discontinued. Victoria also considers that this adjustment relates to an assessment of disability and so the \$30 per capita is the appropriate materiality threshold.

2 *Ibid*, p.16.

5.4 State access to CoE survey data

Victoria appreciates the Commission making the regression results from the econometric model available to the states. These results have enabled Victoria to undertake a more detailed analysis of the assessment.

6. Additional Issues to Consider

6.1 Specification of the econometric model

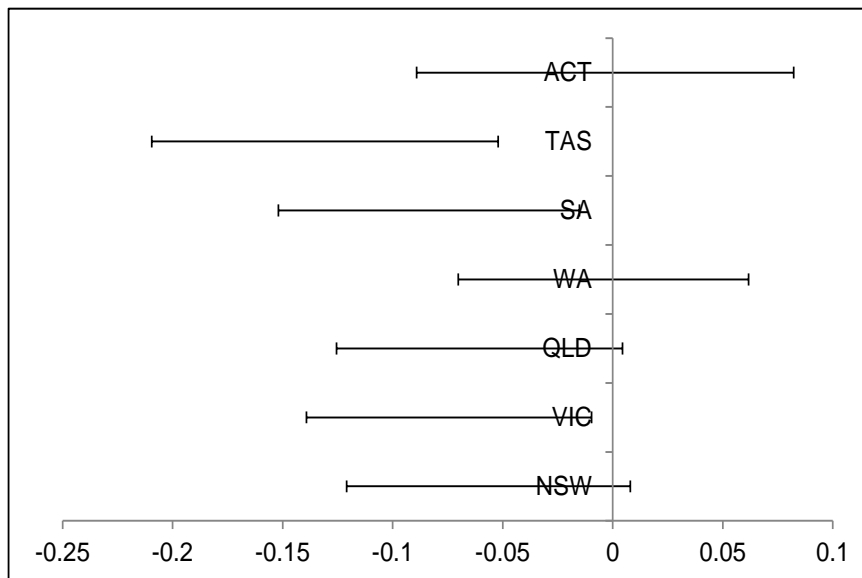
The econometric model used to model private sector wages has over 700 explanatory variables. This contrasts with the model used by the Commission's consultants which contained around 20 explanatory variables. At a workshop organised by the Commission at the 2015 Australian Labour Market Workshop the consultants argued forcibly for a smaller set of explanatory variables. There was a concern that including variables that were correlated with other variables would introduce bias in the results.

There would appear to be scope for the statistical validity of groups of variables in the model to be statistically tested. For example, the use of two digit rather than three digit occupation could be tested using the F statistic. Similarly with industry. It might be possible to have a smaller model that is not statistically different to the larger model. Victoria considers that more rigor needs to be applied to the specification of the model and the interpretation of its results.

6.2 Interpretation of the model results

Victoria considers that a more extensive analysis of the results from the wages models should be undertaken before they are translated into interstate wages factors. As Figure 1 indicates for the 2015 Compensation of Employees survey data on private sector wages, the 95 per cent confidence intervals for the state dummy variables overlap. A similar outcome was found for the 2014 data.

Figure 1: 95 per cent confident intervals for CoE private sector wage equation



Source: Commonwealth Grants Commission.

There appear to be two findings that can be made on the basis of the results from the wages model:

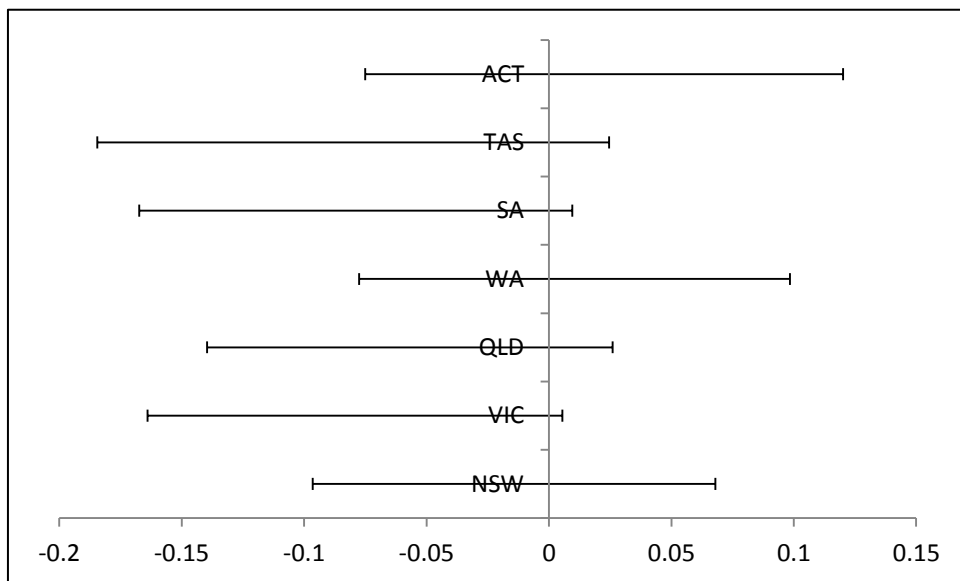
- only Victoria, South Australia and Tasmania have private sector wages that are significantly different to those paid in the Northern Territory; and
- the differentials between the private sector wages paid in all states relative to those paid in the Northern Territory are not statistically significant.

Therefore, the results from the regression model indicate that there is no statistical basis for the wage costs assessment. The Northern Territory is the only state that has statistically significant different wages. This outcome is in accordance with the findings of the Commission's consultants that the Northern Territory be treated as a special case³.

Figure 2 indicates that for the 2015 Compensation of Employees survey data on public sector wages, the 95 per cent confidence intervals for the state dummy variables also overlap and that there is no statistically significance difference between the states. A similar outcome was found for the 2014 data.

3 *Ibid*, p. 18..

Figure 2: 95 per cent confident intervals for CoE public sector wage equation



Source:

Commonwealth Grants Commission.

Figure 2 indicates that is average state policy not to pay differential wages in the public sector for workers with similar characteristics. Although the Commission might regard this outcome as being influenced by state policies, one of its guiding principles is that equalisation should reflect 'what states collectively do'⁴. If equalisation implies a state should pay differential wages based on private sector wage differentials then effectively an external standard is being applied. This is contrary to the Commission statement that equalisation '...means neither the Commission, nor any other body, dictates what States should do...'⁵.

Victoria considers that the Commission needs to apply a more extensive analysis of the regression results from the wages models to demonstrate that the current interstate wages assessment remains justified. The special situation of the Northern Territory could be addressed by other means.

4 Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities 2015 Review: Volume 1—Main Report*, p. 30.

5 Commonwealth Grants Commission, *loc cit.*

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