

**Senate Standing Committee on Economics**

**ANSWERS TO QUESTIONS ON NOTICE**

**Treasury Portfolio**

Budget Estimates

1 June – 3 June 2010

**Question: BET 283**

**Topic: Capacity to model water reform**

**Hansard Page: Written**

**Senator Eggleston asked:**

- a) I just want to confirm, did the Commission do any formal modelling of the basin plan or the water buybacks as part of its recent review?
- b) Does the Productivity Commission have the capacity to model rural water reform, such as the socioeconomic effects of the draft Basin Plan?
- c) I know the Productivity Commission did some modelling in 2004, Peterson et al. Has the Commission updated this work at all? Does it still have the same capacity to conduct similar analysis?
- d) If so, exactly what approach would the Commission use? Would it need to involve outside expertise or would draw on internal resources?
- e) I am not sure if you aware, but ABARE recently conducted some modelling on the first tranche of water buybacks. In their approach, when water buybacks occurred, everyone in a town was paid a portion of the purchase price and no-one left the town after the buyback. Not surprisingly then, income rose following the buyback as did the consumption. Obviously there are limitations with such an approach. Is there a more sophisticated approach available to modelling a water buyback? Or is that just a limitation of the general equilibrium models?

**Answer:**

- a) No.
- b) The Commission has the capacity to model the economic effects of rural water reform, given a suitable timeframe. It is unlikely that social effects could be readily accommodated in a model; however, these could be investigated in other ways. (There can also be some overlap between 'social' and economic effects).
- c) The Commission has not updated that work. It retains capacity to undertake work of that nature.
- d) The approach taken would depend on the specific task. Internal resources could be used to augment data sets, develop modelling scenarios and other tasks.
- e) The Commission is aware of the ABARE modelling work. It was not referenced in the Commission's report as it had not been released at that time. The ABARE model results depend on the combined effects of a rise in income resulting from buyback payments and the loss of agricultural production from reduced water use. It may be possible to extend the approach taken by ABARE, for example by incorporating a population module, but the Commission is not currently in a position to assess this.