The Australian Journal of Agricultural and Resource Economics
Journal of the Australian Agricultural and Resource Economics Society
Australian Journal of Agricultural and Resource Economics, 60, pp. 706–707

Comment 1 on 'Climate change policy and energy transition' by Fisher

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This comprehensive paper on the contribution of the Australian economics profession to the climate policy debates and formulation of policy covers the ground extremely well. The perspective of the author is from the viewpoint of a key policymaker in the international negotiations as well as a researcher directly involved in the development of academic and policy papers. As the author points out, there have been a very large number of international workshops and conferences since the early 1990s in which papers were presented by Australian economists that influenced policy discussions within governments but which did not necessarily get published in mainstream academic journals.

The author usefully distinguishes between the technical contribution of Australian economists in designing the global and national large-scale economic models that have influenced all levels of the climate and energy policy debates in many countries, and the contribution in policy design that have shaped the outcomes of international climate negotiations over many years.

The author also makes the important point that the international contributions of economic models created by Australian researchers have been and continue to be very significant. In addition to the research that was undertaken in the Australian Treasury, ABARE and DFAT, Australian models such as the various ABARE models and the G-Cubed models[1] were included in the Stanford energy modelling forum[2] as well as numerous workshops involved in the Intergovernmental Panel on Climate Change process. For example, the G-Cubed model has also been used internally by the governments of Canada, USA, Japan, Korea, New Zealand and Australian government agencies internally for policy evaluation.

While the paper covers the history of the contributions of Australian economist to climate and energy policy design, I have a different view on future research. More research is needed on shorter term dynamics of adjustment to changes in climate policy and the impact of different climate regimes on the international transmission of macroeconomic shocks. While

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[1] See the list of references in the Fisher paper.

[2] Weyant (1999).

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doi: 10.1111/1467-8489.12188

many of the studies referenced in the paper refer to CGE models which have simple macroeconomic dynamics, we know from a number of papers, including McKibbin *et al*. (2009), that climate regimes such as a carbon tax versus an emissions trading system, although capable of achieving the same emissions outcome, can be different in the way they transmit international economic shocks.

The global financial crisis and continued imbalances within and between economies drive home the importance of developing a global climate change policy architecture and accompanying national policy frameworks that can withstand major economic disruptions. A well-designed global climate regime and the domestic policies in participating countries need to be resilient to large and unexpected changes in economic growth, technology, energy prices and other factors that drive costs of abatement and emissions. Ideally, the climate regime would not exacerbate macroeconomic shocks, and would buffer them instead, while withstanding defaults by individual members. Because climate policy must endure indefinitely in order to stabilise atmospheric concentrations of greenhouse gases, all sorts of shocks will occur at some stage in the policy's existence. Anticipating such shocks may mean rejecting policies that might reduce emissions reliably in stable economic conditions but would be vulnerable to collapse – with consequent deterioration in environmental outcomes – in volatile conditions.

Macroeconomic volatility is a practical manifestation of an issue that has received considerable attention in the theoretical literature on the design of environmental policies: uncertainty about the costs and benefits of reducing emissions[3]. Recent global events, for example, highlight the fact that economic surprises can subject governments to enormous pressures to relax or repeal taxes or other policies perceived to impede economic growth. All else equal, a climate regime that exacerbates downward macroeconomic shocks or depresses the benefits of positive macroeconomic shocks would be more costly and less stable than a system that better handles global business cycles and other volatility.

References

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[3] McKibbin and Wilcoxen (1997)

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