

Alternative Approaches to Designing Climate Policy Response: An Australian Case Study

Topic: Climate policy issues: tools

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Environmental pressure from climate change poses an important risk to humanity. Carbon emissions, a major source of climate change, can be mitigated either at the point of production of goods and services, or the point of final consumption. A number of studies exist that assesses the impact of carbon emissions reduction at the production point, while there is a limited study that assesses the impact at the point of consumption. This is mainly because of the complexity involved in accounting carbon emissions embodied in goods and services, and in using this information to assess the impacts of climate policy throughout the economy. This paper reviews some strengths and weaknesses of different methods that can deal with complex policy problems of climate change. The review shows that the framework based on Input-output method is appropriate for this purpose. It encapsulates embodied energy flows and associated carbon emissions within the economy, and hence provides information on carbon footprints of goods and services. The method also captures behavioural response from changes in policy, and thus allows the assessment of the impact from climate policy on the domestic economy. This paper also provides an example for the application of input-output framework for analysing the impact of climate policy – carbon tax – in reducing carbon emissions in Australia.