THE UNIVERSITY OF SYDNEY

Integrated Sustainability Analysis

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Student topic

Modelling the Impact of a Carbon Price on Australian Business

1. Brief Rationale

A price on carbon is now back on the agenda in Australia. It is widely accepted that a carbon price (carbon tax or emissions trading scheme) will be one of the most effective ways of driving down carbon emissions in the economy. The likely impact of a carbon price on the cost base of firms is not understood and is a major source of uncertainty for business.

1.1. *Input-output analysis*

Economic Input Output Analysis (IOA) provides a practical way to measure the carbon intensity of firms (particularly supply chain impacts). IOA can be used to model carbon price scenarios and pricing pass through in the broader economy. This modelling will allow firms to analyse different scenarios to determine the likely impact of a price of carbon on their bottom line. This information will assist firms to assess risk and opportunities from a price on carbon.

2. Challenge

The challenge will be to use IOA models developed by the Integrated Sustainability (ISA) Research Team to model carbon pricing scenarios for a representative number of firms across a number of industry sectors. Financial data for real companies across a number of sectors will be used in the modelling.

The objective of this work will be to obtain practical information that business can use to understand carbon pricing risk. This will help business and enhance the credibility and value of ISA's IOA approach. This work could potentially have a high profile in the business community by reducing the complexity and confusion about the impact of a carbon price.

This work will lead to enhancements to IOA models to allow routine analysis of carbon pricing scenarios for business.

3. Knowledge, tasks and skills

- Life Cycle Assessment
- Economics
- Basic accounting skills
- Business knowledge and skills

4. Supervisors

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5. References

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