

CO2 emissions embodied in the Australian international trade in goods

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Carbon leakage through international trade has been identified as a limitation of global reduction in CO2 emissions. Indeed, the relocation of production activities from less carbon-intensive economies to more carbon intensive economies increases the global production of CO2. Because it is a major issue in climate change policies, there is an increasing interest in consumption based emissions as opposed to production based emissions. Assessing carbon emissions based on consumption provide a more accurate role of each individual country in global CO2 emissions. The Input-Output (I-O) tables provide details about the production and use of goods and services within the economy. Using I-O tables in conjunction with trade statistics allows determining the net CO2 emissions embodied in international trade. The difference of emissions embodied in exports minus imports is also the difference between production based emissions and consumption based emissions. The methodology implemented in this paper is based on the OECD approach developed by Ahmad and Wyckoff (2003) and Nakano, S et al (2009) . The latest OECD study was using 1998/99 Input-Output tables for Australia and provided a net trade balance of 16Mt CO2 meaning that Australia was a net carbon exporter. The objective of this paper is to update this estimate using the latest 2005-06 ABS Input-Output tables and when possible, to use more detailed data at the industry level.