

***Economic Implications for Australia of the  
EU's Carbon Border Adjustment Mechanism***

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# What does it mean for Australia?

Ultimately a quantitative issue.

Can only be answered with a formal structural model of the Australian economy such as VURM.

Detailed account of economic linkages between agents and with the Rest of the World.

Up-to-date database:

- Increasing share of renewable power in electricity demand;
- Improved fuel efficiency for vehicles;
- Adequate representation of greenhouse suppressing technological changes;
- Trade shares – accounting at detailed level for exports to the EU (and elsewhere).

# Simple and Complex

## Simple:

A tariff on Australian imports into the EU

## Complex:

Levied based on *CO2 content* and relative CO2 prices.

- increase duty-paid import prices by an amount that takes account of additional costs faced by EU producers due to the EU CO2 price.
- must take account of CO2 price (shadow and explicit) in Australia

# Well Understood Qualitative Effects on Australia

EU tariffs on Merchandise products from Australia



Increases buying price of Australian products relative to buying price of EU-produced products with same name



Reduces Australian exports to the EU



Reduces overall export demand for Australian products (taking into account trade diversion effects)



Initial deterioration in terms of trade (ToT) and loss of export volume



Increases real cost of capital in long run and reduces real consumption possibilities



Less capital means less real GDP, etc.

# Tricky Part: Estimating the Required increases in Duty paid Prices

How do you estimate CO2 content of EU and Australian products taking into account direct and indirect content?

What are the (effective) prices of CO2 in the EU and Australia for each product?

Can trade data tell us where the Australian product entering an EU port is used?

*Steel aint Steel*

How do you take into account existing trade distortions such as ones affecting agricultural imports into the EU?

What about processed products entering the EU with less than 100 per cent Australian content?

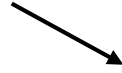
# Impacts on buying prices of EU products (60 euro CO2 price)

Product (merchandise only)	% change in price
1. Sheep and cattle (live)	8.59
2. Grains	9.02
9. Coal mining	256.26
13. Other non-ferrous metal ores	2.02
16. Meat products	4.12
17. Dairy products	3.67
20. Drink (and tobacco) products	1.61
24. Refined oil products	16.31
25. Basic chemicals, plastics, rubber	1.72
27. Iron and steel	10.15
28. Alumina refining	3.67
29. Aluminium smelting	4.04
30. Fabricated metallic products	2.57

# Vertical Shifts in Export Demand

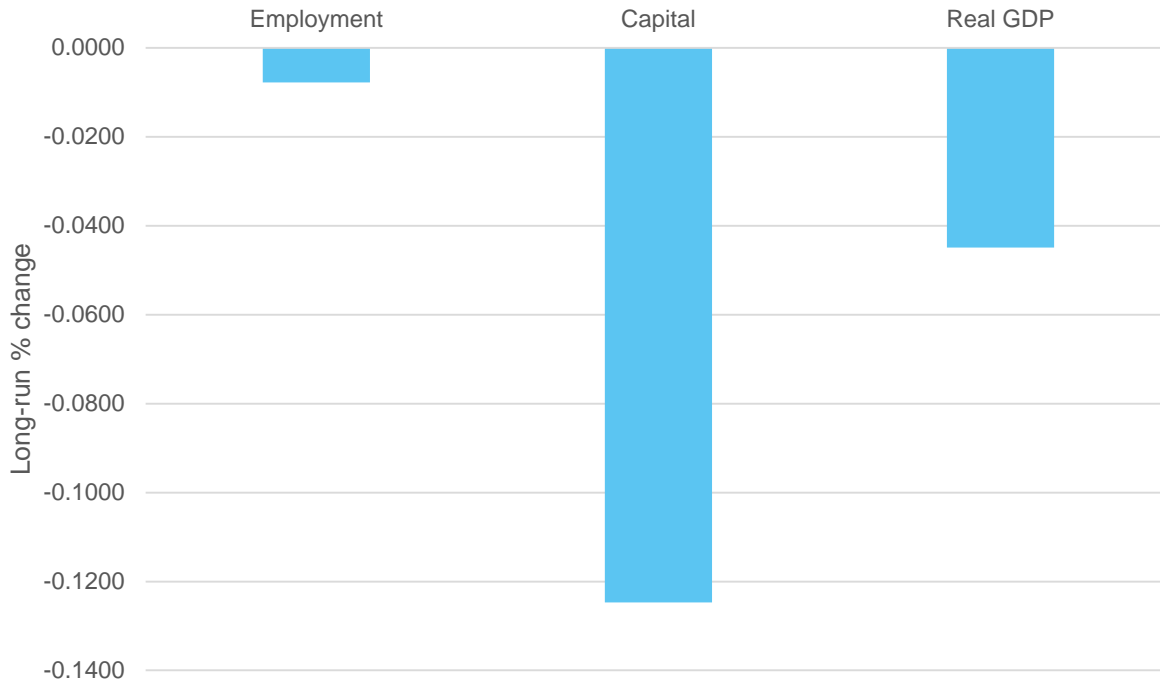
Product (merchandise only)	Inverse of % change in price of Australian imports in the EU (duty paid)	EU share in total Australian exports (number like 0.5)	1-Diversion rate (number like 0.5)	Vertical shift (%) in Australian export demand schedule
	(1)	(2)	(3)	= (1)×(2)×(3)
1. Sheep and cattle (live)	-7.91	0.0006	0.62	0.00
2. Grains	-8.27	0.0004	0.61	0.00
9. Coal mining	-71.93	0.0589	0.58	-2.46
13. Other non-ferrous ores	-1.98	0.0117	0.59	-0.01
16. Meat products	-3.96	0.0280	0.72	-0.08
17. Dairy products	-3.54	0.0875	0.73	-0.23
20. Drink (and tobacco) products	-1.58	0.0074	0.72	-0.01
24. Refined oil products	-14.02	0.0227	0.78	-0.25
25. Basic chemicals,	-1.69	0.0391	0.77	-0.05
27. Iron and steel	-9.21	0.1203	0.77	-0.85
28. Alumina refining	-3.54	0.1010	0.78	-0.28
29. Aluminium smelting	-3.88	0.1746	0.78	-0.53
30. Fabricated metallic products	-2.51	0.0359	0.78	-0.07

<https://www.argusmedia.com/news/1933242-australia-coal-exports-to-europe-rise-in-may>

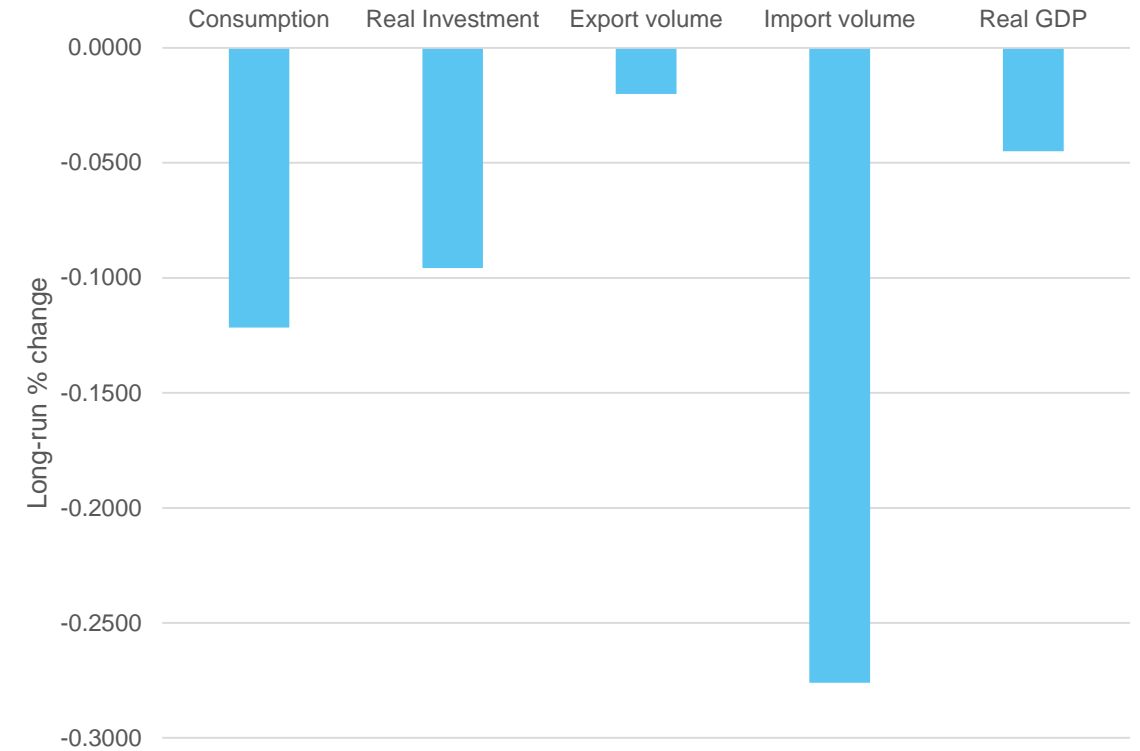


# Macroeconomic Effects

### Real GDP and factor inputs



### Real GDP and Expenditure Aggregates





# Production Effects

Product (merchandise only)	% change in production
1. Sheep and cattle (live)	0.56
2. Grains	0.69
9. Coal mining	-8.12
13. Other non-ferrous metal ores	1.10
16. Meat products	0.43
17. Dairy products	0.15
20. Drink (and tobacco) products	0.28
24. Refined oil products	0.08
25. Basic chemicals, plastics, rubber	0.63
27. Iron and steel	-0.56
28. Alumina refining	-0.43
29. Aluminium smelting	-0.56
30. Fabricated metallic products	-0.79

# Overall

Economic Impacts of an EU EBAM on Australia likely to be small

- Not because the CBAM tariffs are necessarily small
- But because the EU is generally a small customer for Australian merchandise.

Empirical estimation point to some of the likely difficulties in implementation

- Effective CO2 price in Australia is not zero and differs by product and region
- Effective CO2 price in EU not the EU ETS price by product, with exemptions, recycling, etc.
- Difficulty in estimating CO2 content.