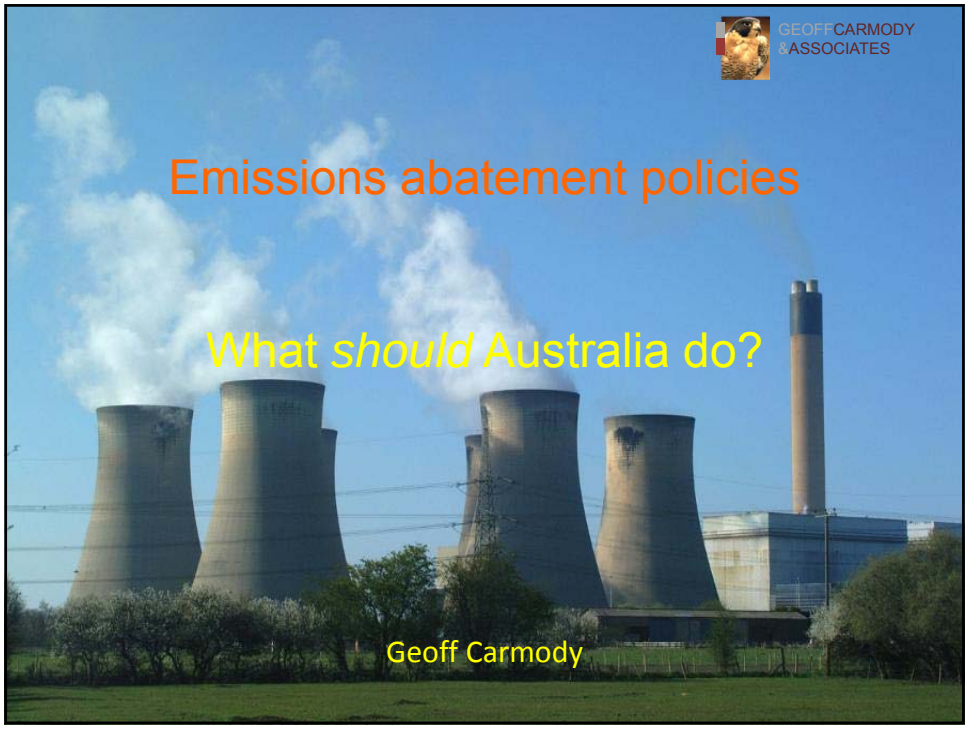


The fundamental starting point

Effective responses to human-induced global warming come from sovereign government action restricting emissions, not aspirational, target-focused, multilateral communiqués.

Some realities, principles & constraints

- Reality #1: harmonised global action is a pipe-dream. National action (or inaction) is the reality. A global deal is uncertain at best
- Reality #2: countries, especially developing countries, will not accept loss of trade competitiveness as a cost of climate action
- Reality #3: the national production model and accounting framework pursued since Rio has failed, largely because of realities #1 and #2
- Principle #1: action to cut greenhouse gas emissions is costly even if effective. So the most cost-effective policy should be chosen
- Principle #2: cost-effective policy action means consumers, one way or another, will pay. Politicians must be up-front about this
- Constraint #1: politicians may not like to acknowledge principles #1 and #2, preferring cosmetics, and denying (at least) reality #3

Some scenarios for analysis

- Scenario #1: Assume we can get a truly global climate policy in place. This seems the *only* scenario being analysed at present

  Prudence dictates looking at other possibilities. Some examples?

- Scenario #2: Assume emerging economies (and others?) will ***not*** take climate policy action & will concentrate on raising their living standards for the foreseeable future, despite some action in (some?) developed economies
- Scenario #3: Assume the world will continue, as before, with ineffective global negotiations on climate policy in future
- Scenario #4: *Given* scenarios #2 or #3, assume world population growth starts pressing hard against resource capacity

Scenario #1

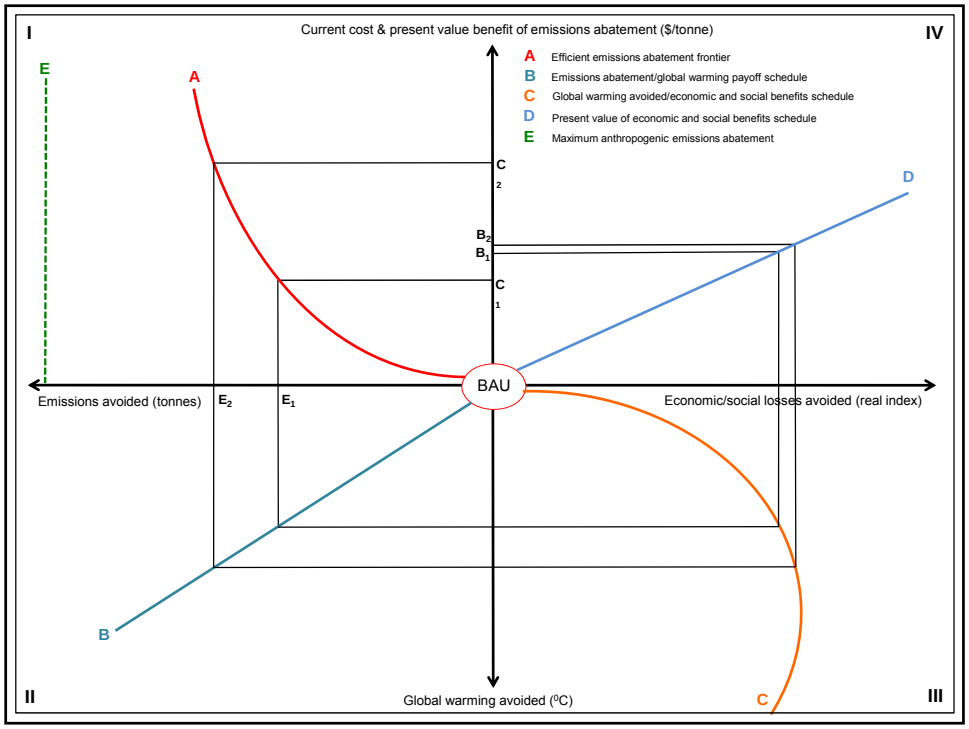
The truly global climate policy deal:
(a triumph of hope over experience?)

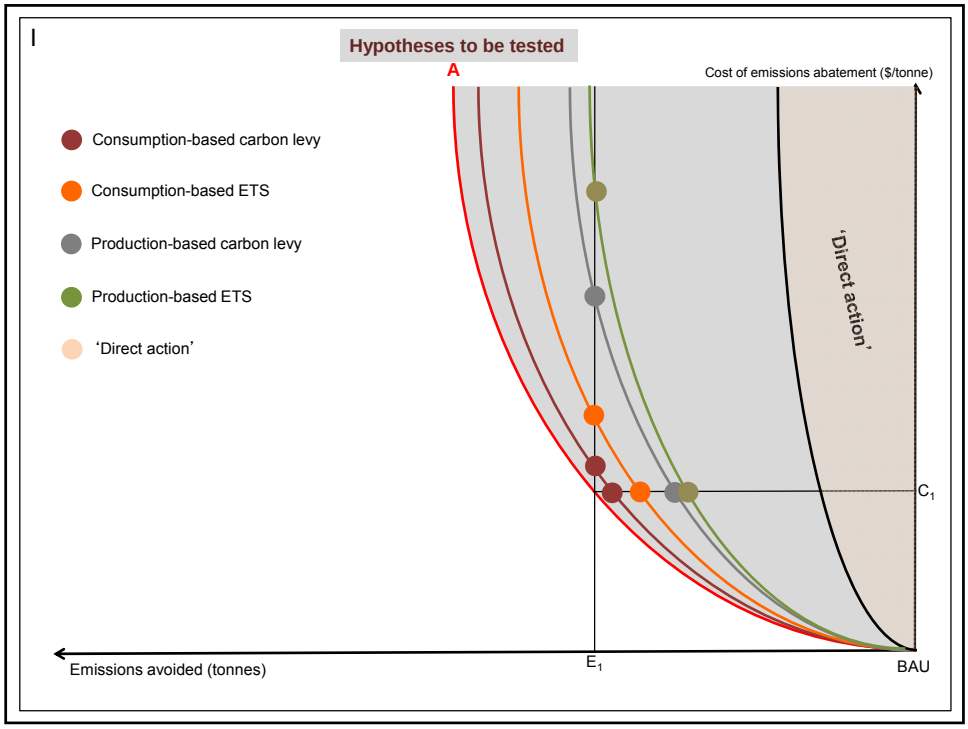
What are we ***trying*** to do?

My conceptual framework

Four relationships need quantification

- Relationship #1: what is the efficient cost (eg., $/tonne) of reducing greenhouse gas emissions – where is the efficient frontier?
- Relationship #2: what is the global warming payoff (eg., ^{o}C avoided) from reductions in anthropogenic greenhouse gas emissions?
- Relationship #3: what future economic and social damage is avoided (eg., some sort of real index number) as a result of avoided global warming?
- Relationship #4: what is the present value of the benefits derived from relationship #3 (ie., what is the appropriate discount rate)?
- Despite all the work on the science, ***none*** of these relationships has really been quantified. *We don't even know for sure where the efficient policy emissions reduction frontier is.* How can we set policy in this situation?





'Insurance policy' response to uncertainty

- Given this massive information deficit, risk management is needed
- In the past, the 'precautionary principle' was proposed: we're not sure what damage we might be doing, so we'd better stop doing it
- A more sophisticated approach may be to argue that, in the face of uncertainty, we need to 'take out insurance' against possible very serious and even irreversible damage, however low its probability
- No analogy is perfect, but this one may be dodgy. We would not be buying insurance cover *per se*, but acting to curb the source of the feared problem, whatever its cost/odds. Anyway …
- … continuing the analogy, if 'environmental flood insurance' in Australia costs us (as an 'excess') (i) more 'economic drought' here, plus (ii) producing more 'floods' overseas, is this a good deal?

What are we ***trying*** to do?

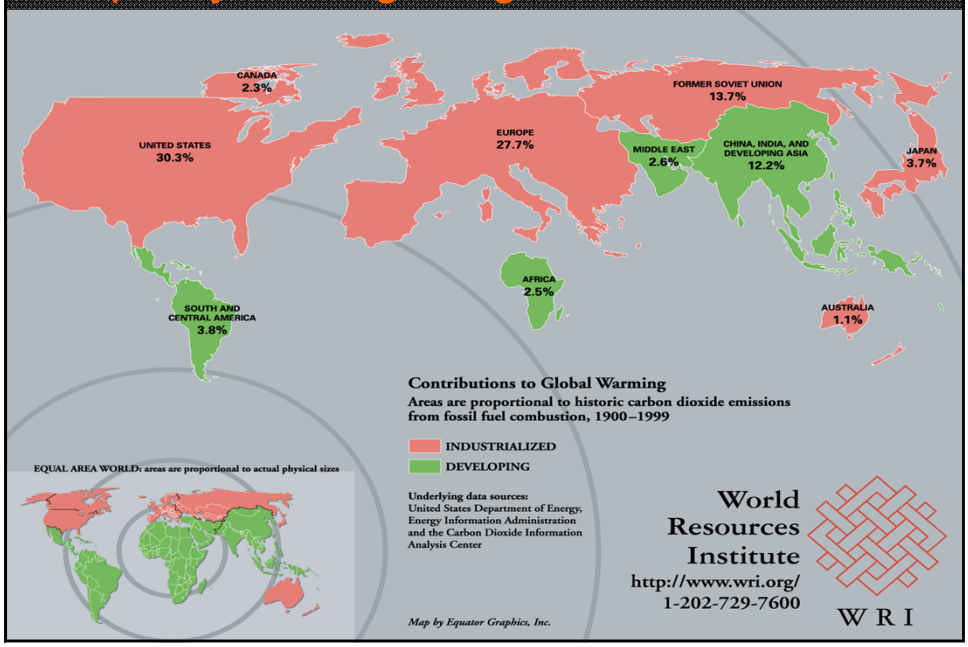
The international negotiations framework

The policy task: steps to a global deal

1. Agree on global warming limit (eg, +2°C over pre-industrial level?)
2. Agree global GHG concentration that delivers this (eg, ≤350ppmv?)
3. Agree on global GHG reduction needed (rel. to BAU or base year?)
4. Agree on criterion for national burden-sharing (a zero-sum game)
5. Agree on distribution of 3. between all countries, based on 4.
6. Get each country to accept these shares as a commitment
7. Ensure each country acts sufficiently to deliver on 6.

Even if we succeed re. 1 – 3, achieving 4 – 7 will be *increasingly difficult*

The policy task: getting emitters 'on board'



My main message

Non-harmonised national climate policy action meant the CPRS wouldn't work. But there's a superior alternative to the CPRS that just *might* work:

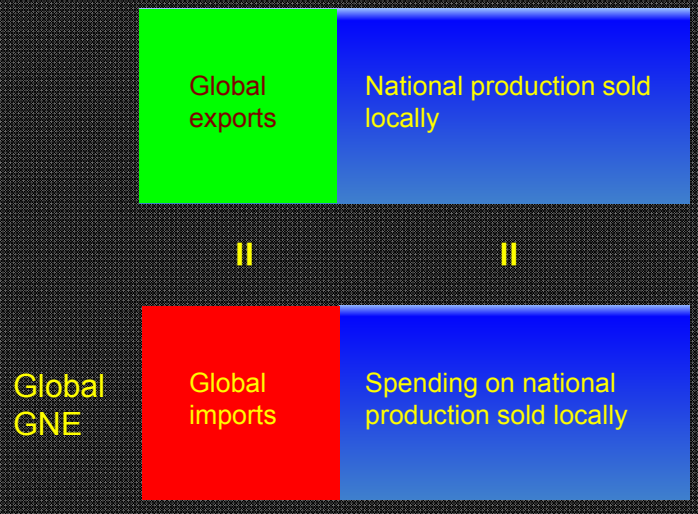
- It is *practical & WTO-compliant*
- It *removes 'carbon leakage' & job losses as impediments to unilateral national action & maximises chances of getting a global deal as a result*

That alternative is a national emissions consumption-based carbon price policy model

Consumption- & production-based approaches: some broad principles

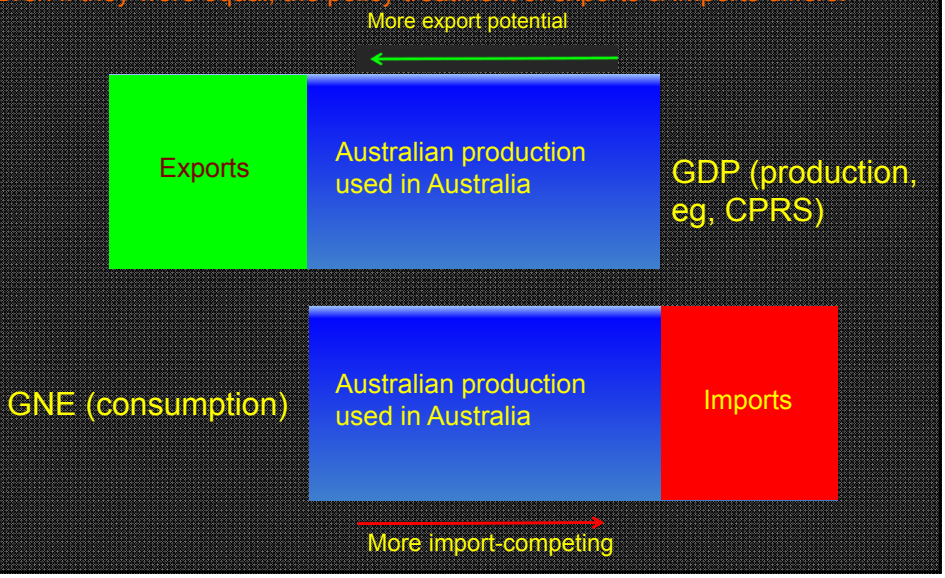
Production vs consumption: a global view

Emissions embedded in global GDP = Emissions embedded in global GNE



Production vs consumption: a country view

Emissions embedded in national GDP ≠ Emissions embedded in national GNE
Even if they were equal, the policy treatment of exports & imports differs.



Incentive effects embedded in the CPRS

Under Kyoto/UNFCCC models, 'first movers' suffer. They lose competitiveness versus 'late movers'. As a result, 'late movers' have an incentive *not* to act

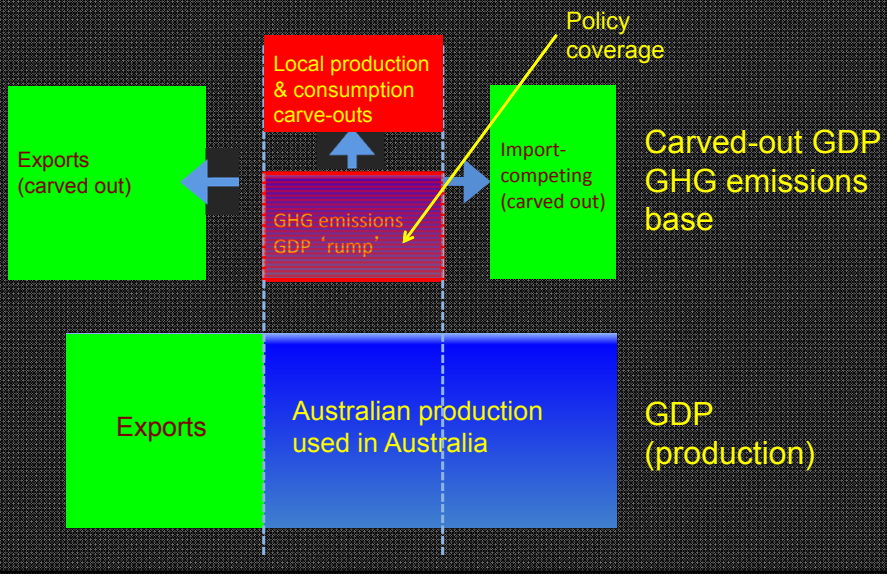
Unilateral action under a Kyoto production-based model:

- *IS EQUIVALENT TO **NEGATIVE** PROTECTION*
- *A TAX IS IMPOSED ON OUR EXPORTS*
- *A 'SUBSIDY' IS EFFECTIVELY GIVEN TO IMPORTS*

Policy ***MUST*** eliminate *negative protection* features.

The reality: a 'carved out' production base

Countries that have 'acted' have compensated too much!



Consumption base: out of step with others?

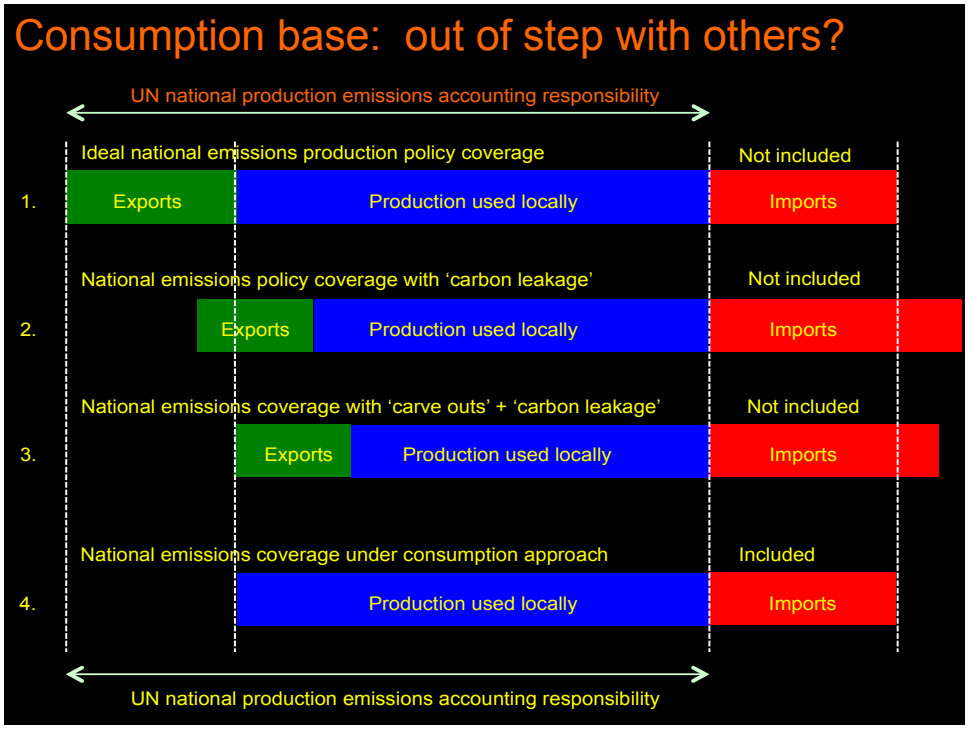
Some suggest that if Australia adopts a consumption base for its emissions policy, it will be out of step with other countries

This is largely a fallacy or is irrelevant

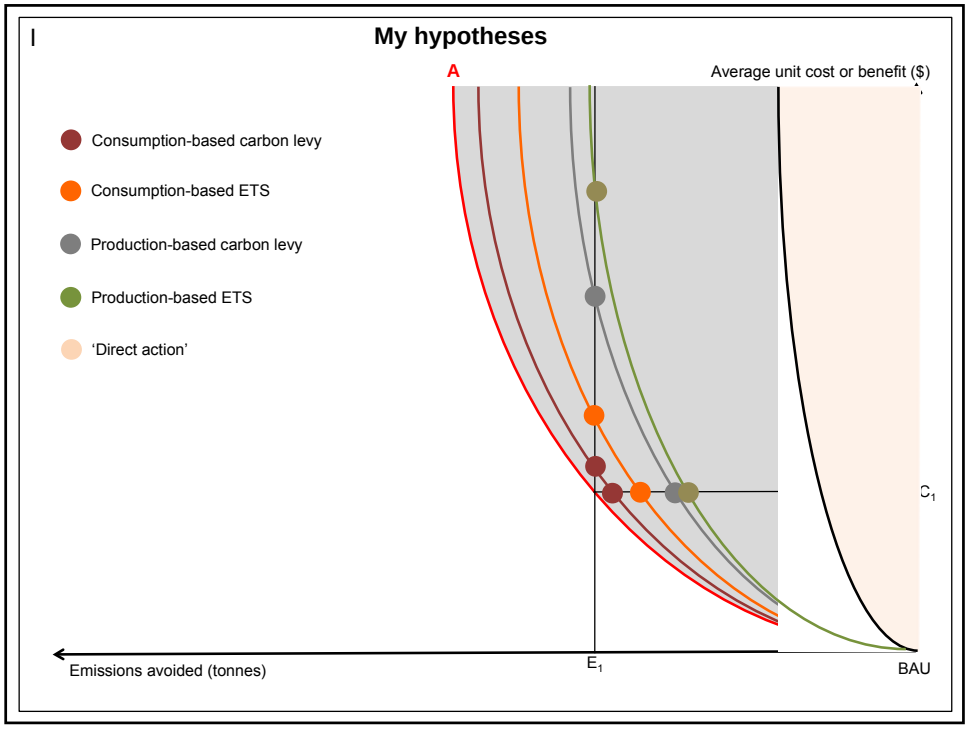
Other countries 'carve out' exports and threaten BTAs on imports: a consumption base just does the same thing in a principled, comprehensive, WTO-compliant way

Other countries' policies are not working anyway: do we *really* want to emulate such policies?

Consumption base: out of step with others?



Consumption-based approach: empirical evidence



Modelling evidence – Treasury

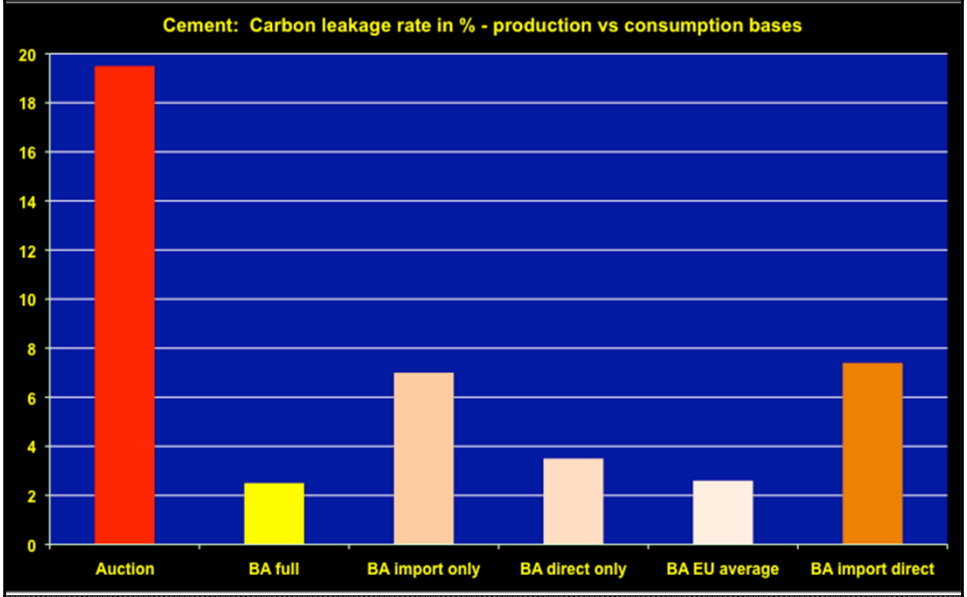
'(Permit) allocations based on production are likely to result in higher welfare costs for Australia than allocations based on consumption.'

(Treasury modelling report on CPRS, page 84)

The (then) Climate Change Minister asserted the CPRS (a production-based policy model) is the lowest-cost option for reducing emissions.

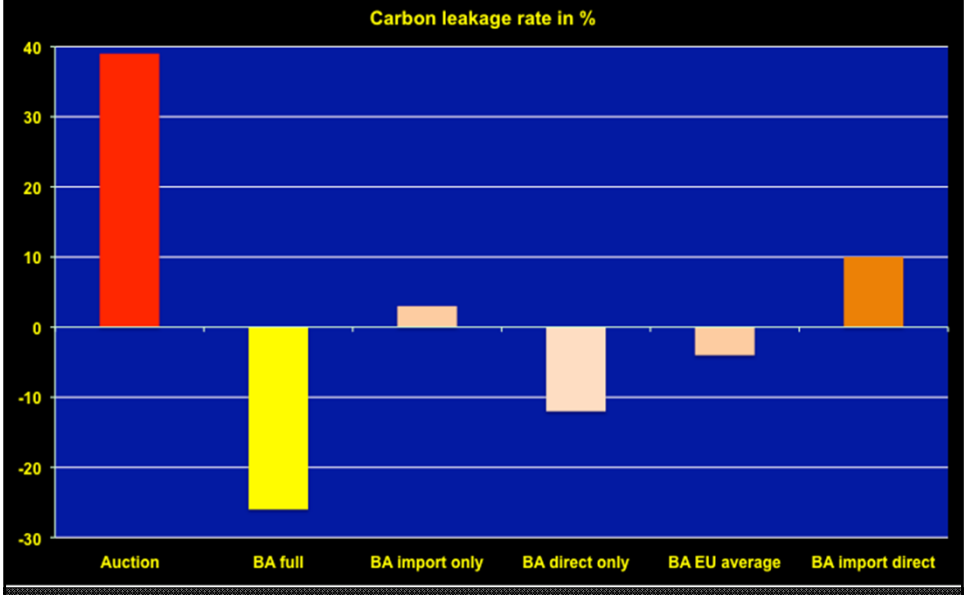
Can *both* propositions be correct?

Modelling evidence – EU: Cement



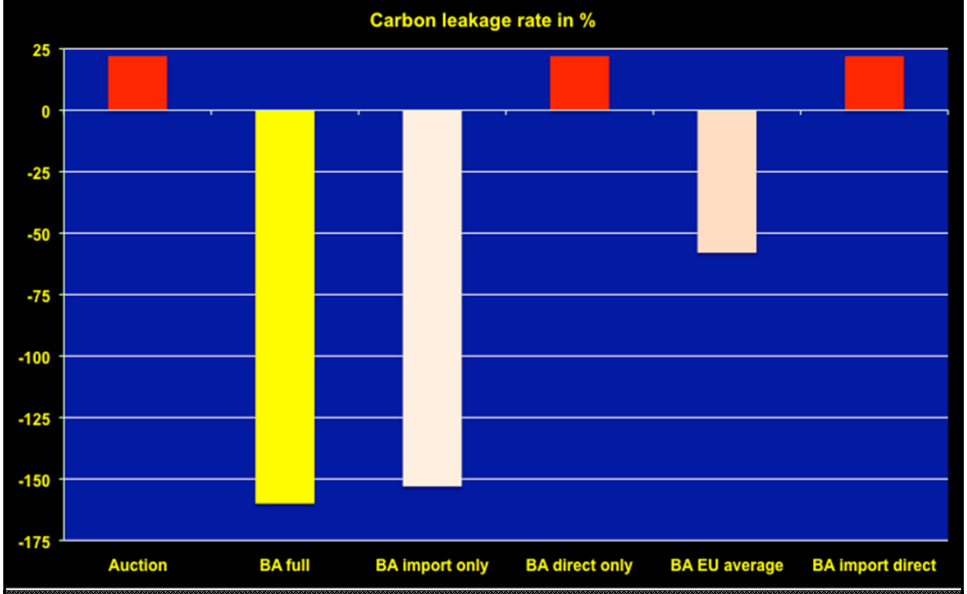
Source: Climate Strategies draft report.

Modelling evidence – EU: Steel



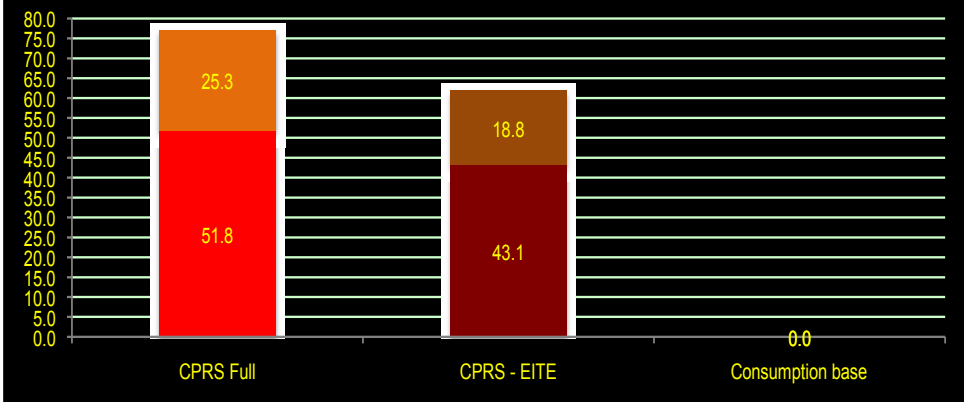
Source: Climate Strategies draft report.

Modelling evidence – EU: Aluminium



Source: Climate Strategies draft report.

Consumption base vs CPRS: Summary of Access Economics prelim. results (2020)



Indexes show CPRS and CPRS-EITE percentage GDP cost-penalties per global emissions reduction compared with consumption base (set at zero). Additional penalties due to CPRS trade distortions

The way forward

A new start: seven principles for global deal

I. Raise relative price for CO_2, etc., but minimise real income effects

I. National emissions reductions = same contribution to global cuts

II. Minimise 'free rider' impediments to a global deal

III. Minimise national 'carve outs' causing intra-national 'carbon leakage'

I. Ensure national policies are trade competitiveness-neutral

II. Allow countries choice of modality, subject to principles I. – V.

III. Minimise national compliance costs

These sound like 'motherhood'? Good. They might be globally agreed

What about the alternative scenarios?

- Scenario #2: Assume emerging economies (and others?) will ***not*** take climate policy action & will concentrate on raising their living standards for the foreseeable future, despite some action in (some?) developed economies
- Scenario #3: Assume the world will continue, as before, with ineffective global negotiations on climate policy in future
- Scenario #4: Assume world population growth starts pressing hard against resource capacity

Scenario #2

(The 'let's get real' scenario)

Suppose developing countries don't act

In this case:

1. We're 1.0% - 1.4% of global emissions – and falling
2. Shutting Australia down will be offset rapidly
3. Indeed, it would be the ultimate in 'carbon leakage'
4. Absent key emitters, we'll cut jobs, not emissions
5. Only with prospects of a global deal should we act

Scenario #3

(Cancun = Cancan't?)

A cynical summary of the status quo (by an ex-player)

Fact is, governments love these negotiations as they can use them to convince those wanting action that they are engaged in serious efforts – and justify not taking any action until the negotiations are complete!

I would like that to continue for ages. Far cheaper to send officials to conferences all over the world, particularly when the opportunity cost of their time is so low, than to take action.

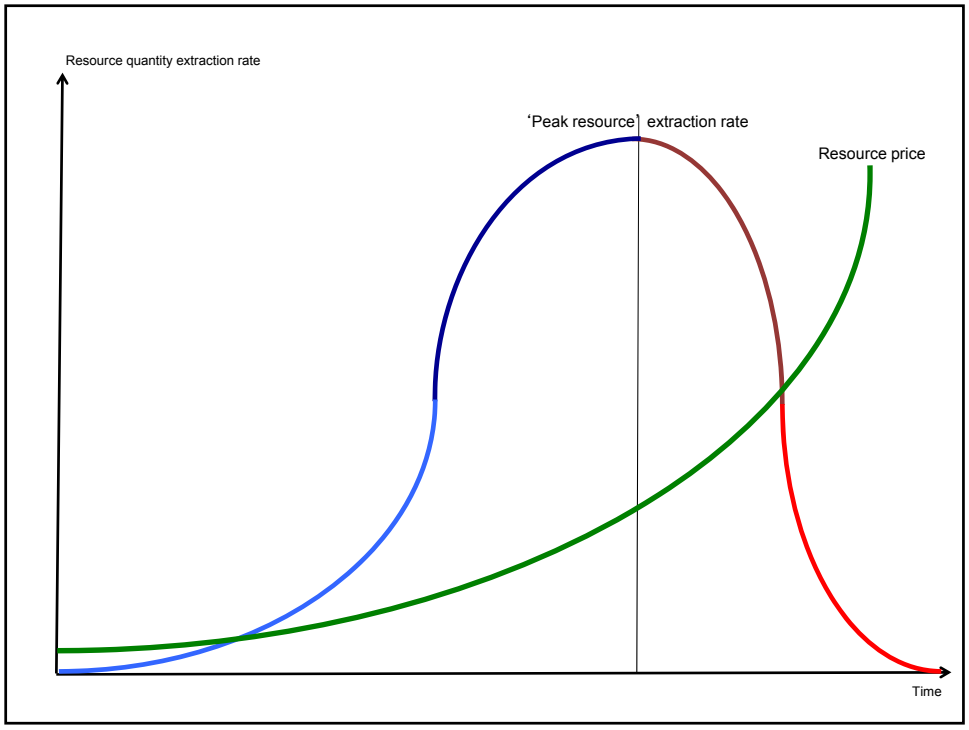
Scenario #4

Peak resources, price pressure

With no action, what if markets boom?

In this case:

1. if growing population pushes excess demand …
2. global prices for energy, food, etc., will surge …
3. these will put a *truly global* price on emissions …
4. 'peak oil' and similar effects will ration emissions …
5. the markets will drive emissions prices up.



Scenario #4A

Peak resources, price pressure:
The optimistic version

Scenario #4B

Peak resources, price pressure:
The pessimistic version

Summary on mitigation policies #1

- Scenario #1: adopt a national consumption carbon price, but only because this allows us to lead by example, hoping others follow
- Scenario #2: do nothing – Australian action is (largely) useless
- Scenario #3: do nothing – Australian action is (largely) useless
- Scenario #4A: do nothing – ironically, the 'market failure' will be corrected just in time by the world's commodity markets
- Scenario #4B: do nothing – unless the key emitters decide to go back to scenario #1, nothing we do makes any real difference, even if the world over-heats
- In short, taking action assumes a global deal is possible

Summary on mitigation policies #2

If Australia wants to do anything in this policy area, it had better encourage other nations to act too – or, at the very least, not discourage them from doing so.

Concluding comments

This *is* a 'diabolical' policy area (Garnaut's right on this) Costs come early; benefits come late & are uncertain; *and* those benefits are only measurable against a 'do nothing' (BAU) scenario in the distant future

We should design policy carefully, avoiding the obvious pitfalls, eg, the 'free rider' problem, or DO NOTHING

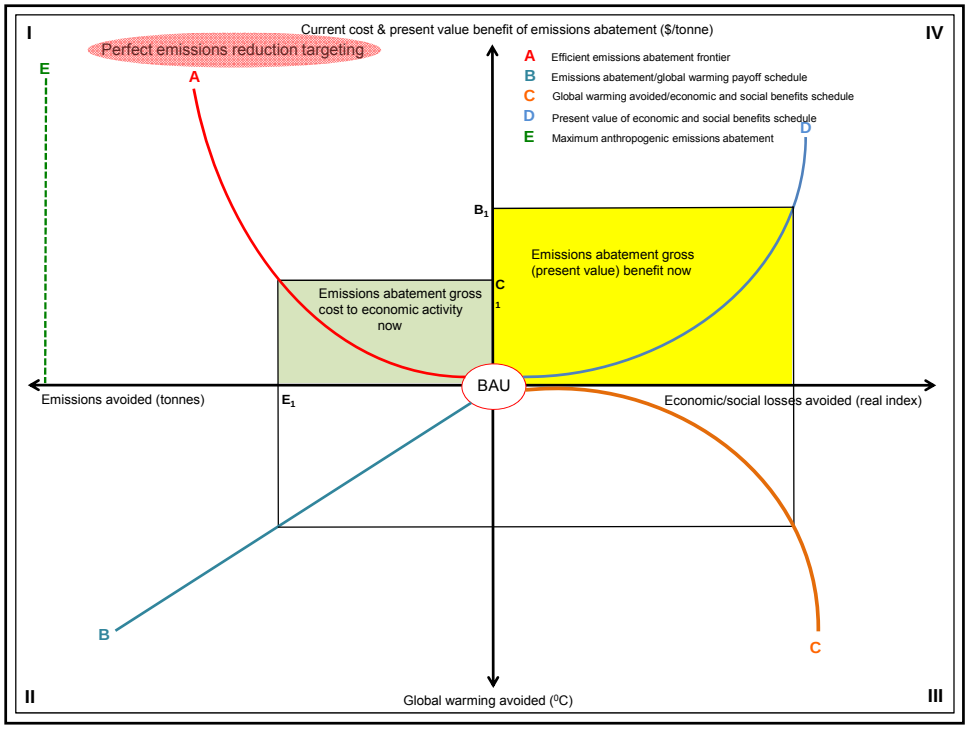
*The chances of getting an **effective** global deal are probably low. We have nearly two decades of history proving this. In these circumstances, what should Australia do? Nothing **we** do can make much difference unless it's part of a global deal.*

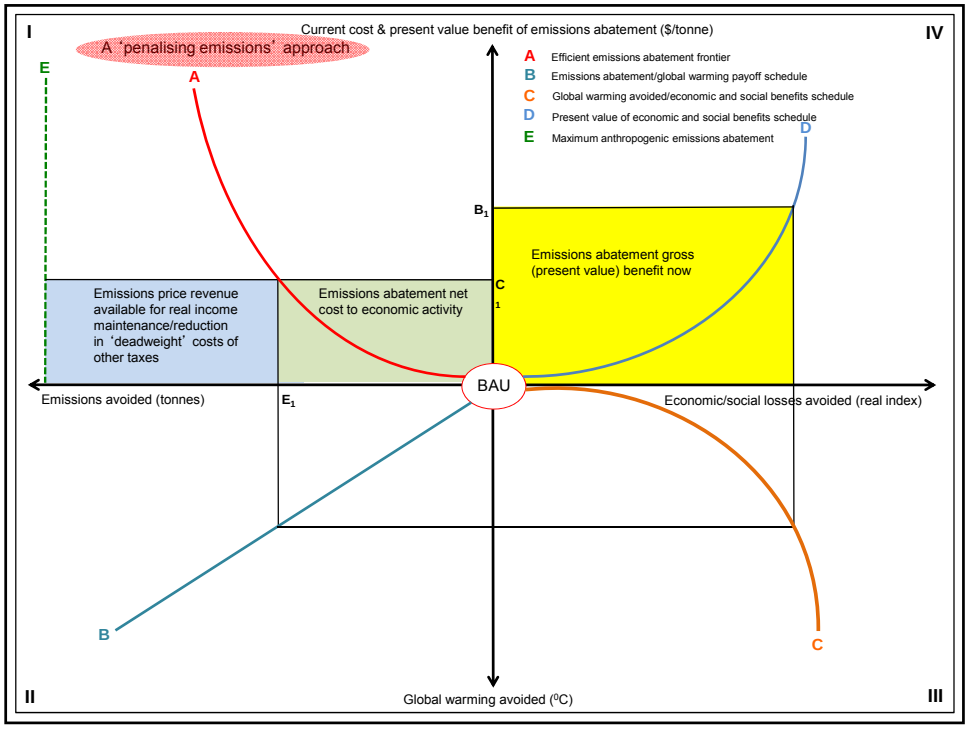
Emissions mitigation policy: conclusions

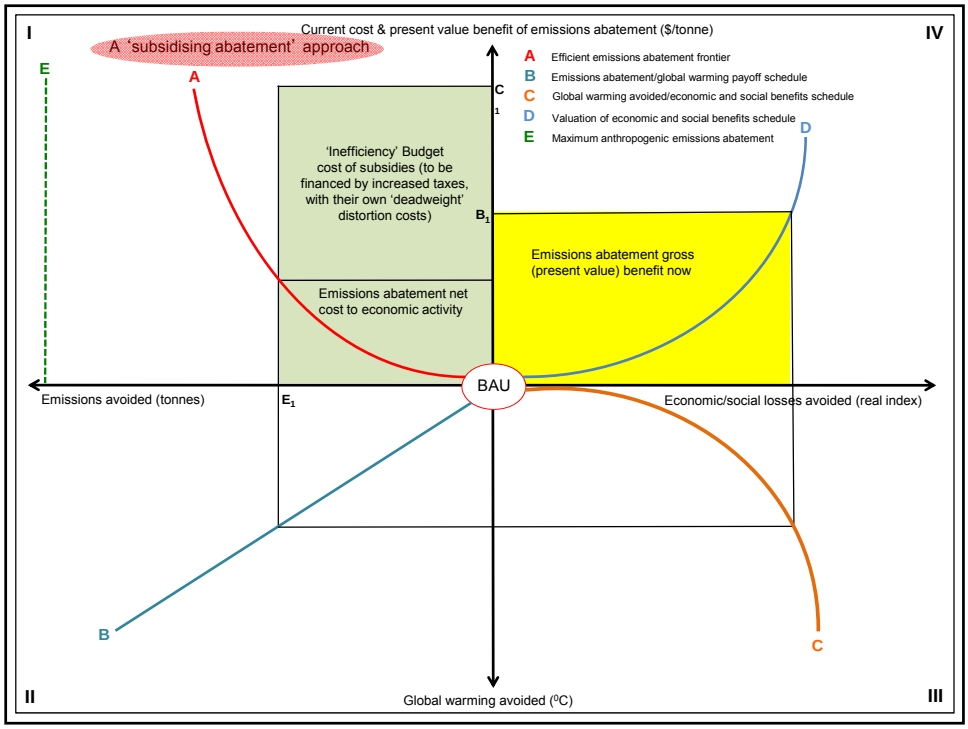
- There is more than one global climate policy scenario
- All analysis so far assumes a global deal will happen
- Without that, Australian mitigation action is useless
- This doesn't imply we *should* do nothing: but we'd better support policy maximising odds of a global deal
- If we don't, doing nothing may be a better Oz option

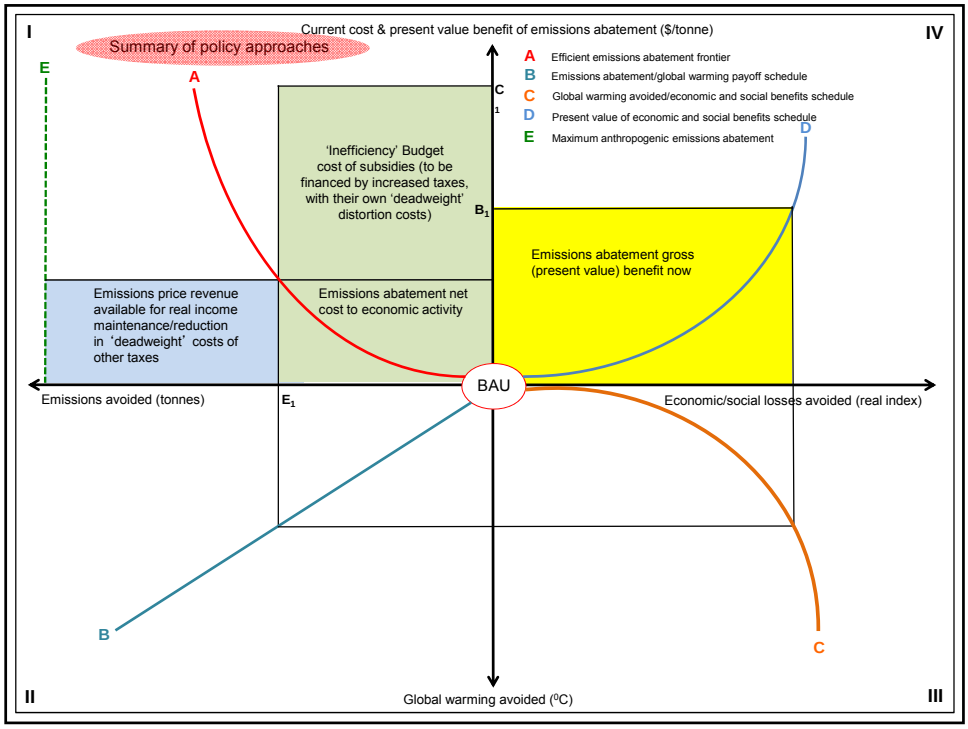
Effective responses to human-induced global warming come from sovereign government action restricting emissions, not aspirational, target-focused, multilateral communiqués.

Additional slides




I
IV
II
III
Current cost & present value benefit of emissions abatement ($/tonne)
A 'penalising emissions' approach
A Efficient emissions abatement frontier
B Emissions abatement/global warming payoff schedule
C Global warming avoided/economic and social benefits schedule
D Present value of economic and social benefits schedule
E Maximum anthropogenic emissions abatement
E
A
D
B1
C1
Emissions abatement gross (present value) benefit now
Emissions price revenue available for real income maintenance/reduction in 'deadweight' costs of other taxes
Emissions abatement net cost to economic activity
BAU
Emissions avoided (tonnes)
E1
Economic/social losses avoided (real index)
B
C
Global warming avoided (0C)


I
IV
II
III
Current cost & present value benefit of emissions abatement ($/tonne)
A 'subsidising abatement' approach
A Efficient emissions abatement frontier
B Emissions abatement/global warming payoff schedule
C Global warming avoided/economic and social benefits schedule
D Valuation of economic and social benefits schedule
E Maximum anthropogenic emissions abatement
E
A
C1
D
'Inefficiency' Budget cost of subsidies (to be financed by increased taxes, with their own 'deadweight' distortion costs)
B1
Emissions abatement gross (present value) benefit now
Emissions abatement net cost to economic activity
BAU
Emissions avoided (tonnes)
E1
Economic/social losses avoided (real index)
B
C
Global warming avoided (0C)



Some (global) 'elephants in the room'

- Jumbo #1: population growth – especially in developing countries – is a very powerful force driving greenhouse gas emissions, but ….
- Jumbo #2: … population growth is off the policy agenda, especially as populations age, and ….
- Jumbo #3: … given population, aspirations for higher living standards – especially in developing countries but by no means limited to them – are the other powerful force driving greenhouse gas emissions ….
- Jumbo #4: … the 'Club of Rome' pessimism about resource constraints as a limit to growth (population plus living standards) was rejected in the past, and can't be resurrected, so ….
- Jumbo #5: … climate policy must seek solutions that ignore these 'elephants in the room'. For now, so do I, but …….