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SUSTAINABILITY, CLIMATE CHANGE & WATER

Life Under an Emission Trading Scheme

EDO National Conference
28th May 2010

ADVISORY

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Themes

What is emissions trading?

- Whose air is it anyway?

Life under an emission trading scheme

- The end of civilisation?
- or
- Less than 10% of the oil price rise?
- or
- Windfall profits for participants

Lessons for Australia

- What the EU Emission Trading Scheme (ETS) can teach us
- What we will have to learn on our own

Legal questions

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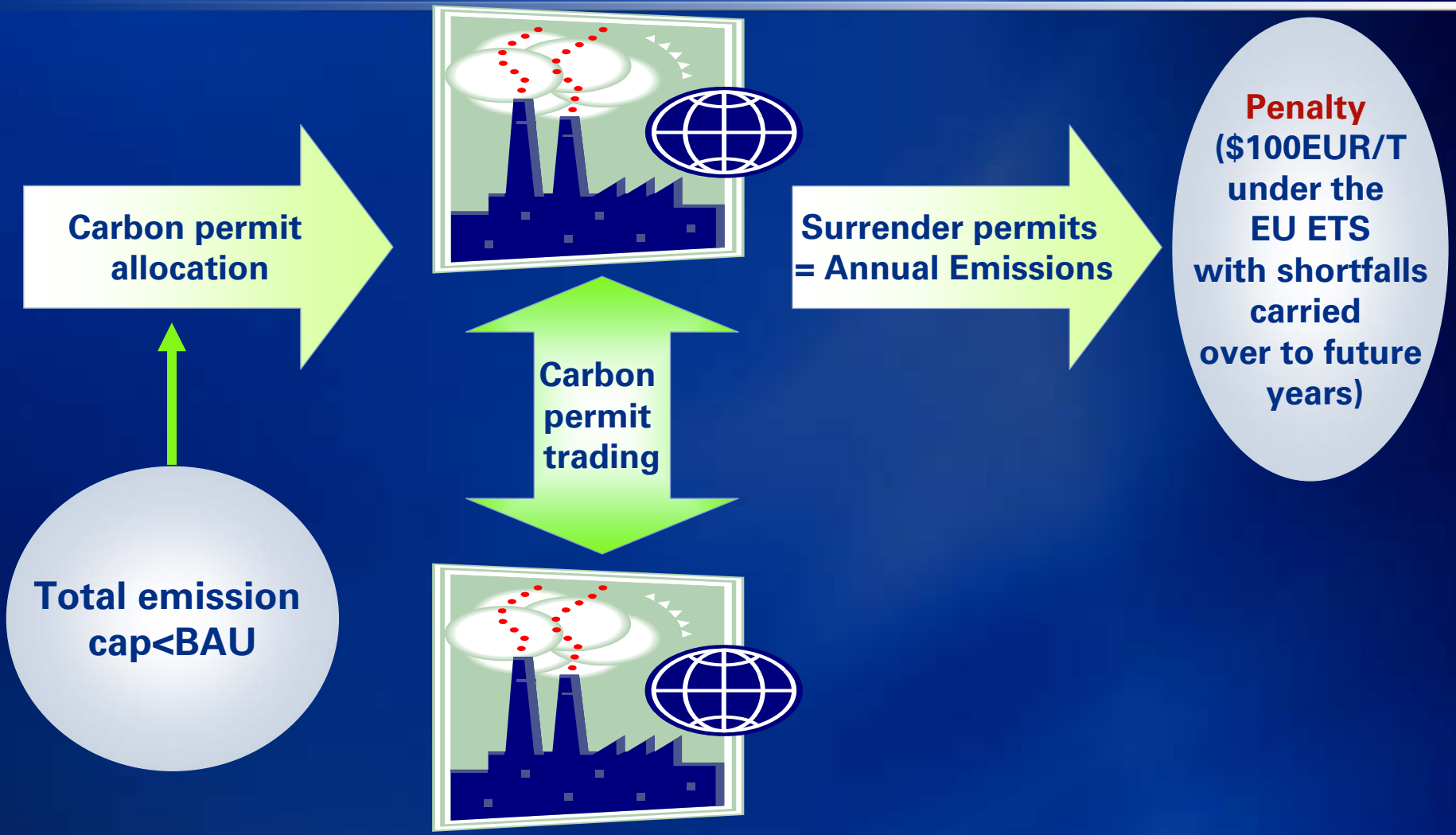
How Does an Emission Trading Scheme Work? EU Example



Cap and trade is not new

It is the allocation of rights to a finite resource – new assets

- Grazing on common land
- Fishing permits
- Water supply licences

Different "externalities" same arguments

Who gets the asset?

Contentious issue with NGOs

International level: Who get the assets?

How much CO_2 "space" can we all have?

Allocate on need or on global capacity

- Is it a human right?
- Is it a property right?

Key issues

- Legacy emissions (from when?)
- Per capita emission?
- Debate about national targets at Copenhagen
- Capacity and equity based allocations

A fair allocation of assets?

EU ETS

- 2,000 million permits
- 40% of emissions
- 460 million people
- 11 t CO_2 per person

Australia

- 480 million permits
- 80% of emissions
- 22 million people
- 27 t CO_2 per person

A “land grab”?

Fencing off assets you don’t own

Why did we not “buy” from other owners?

Zero national allocation to Australia in 2050?

Legal basis of allocating?

Open to challenge in the future?

- Court of human rights?
- Class action by small islands

Analogous to allocation of water rights?

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National level: Who gets the assets?

How to give out carbon permits

The value of the permit is independent of the allocation method

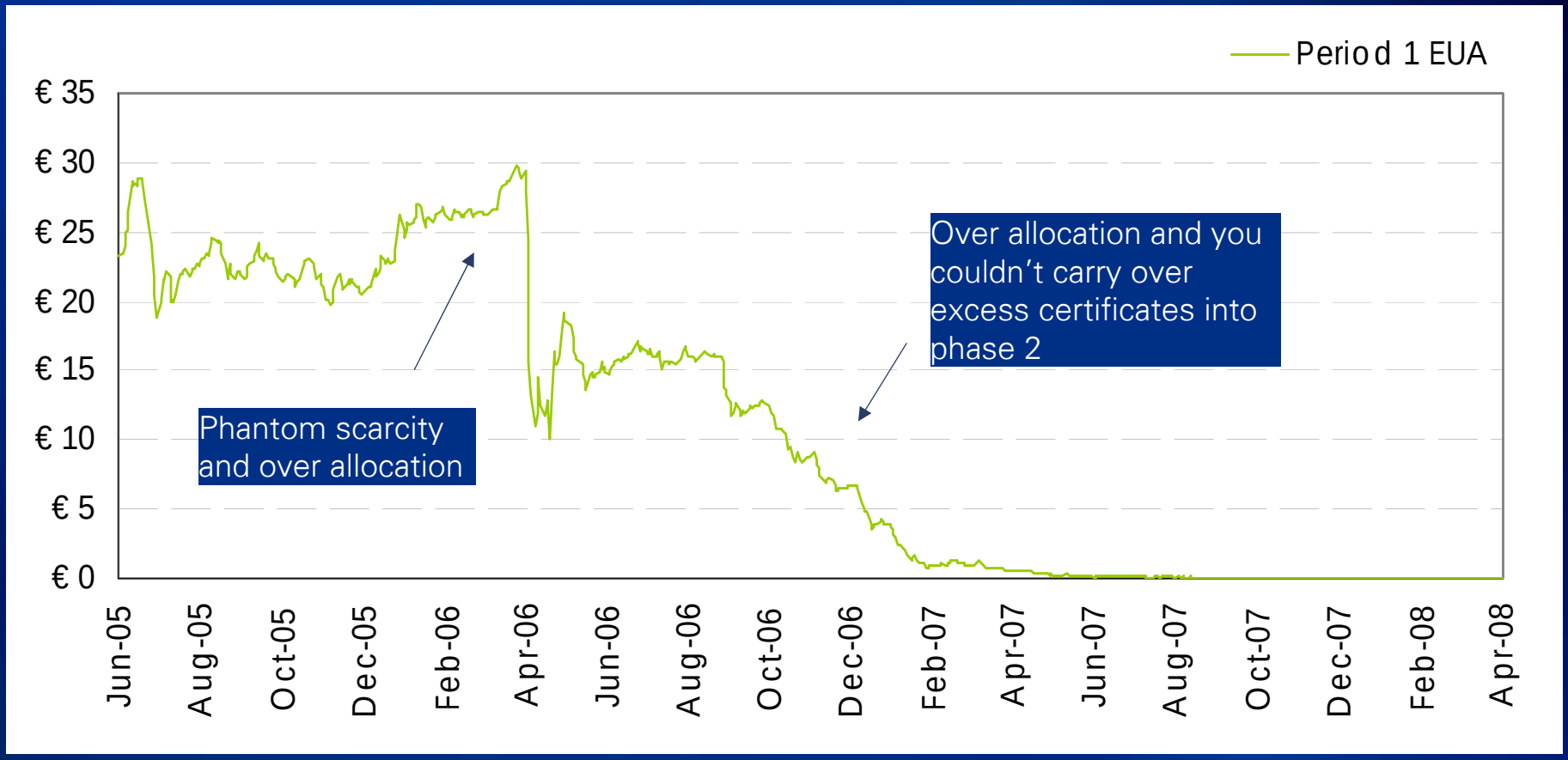
Auction permits = Government get the value

- Best for price discovery
- A painful transition for some (e.g. certain cola mines)

Free permits = Industry get the value

- EU experience
- Does not protect consumers from windfall profits
- Has the risk of over allocation

What over allocation looks like



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Why over allocation happens

Information asymmetry and the zero sum game

What is the best outcome for an individual company?

What is the best outcome for the overall price of permits?

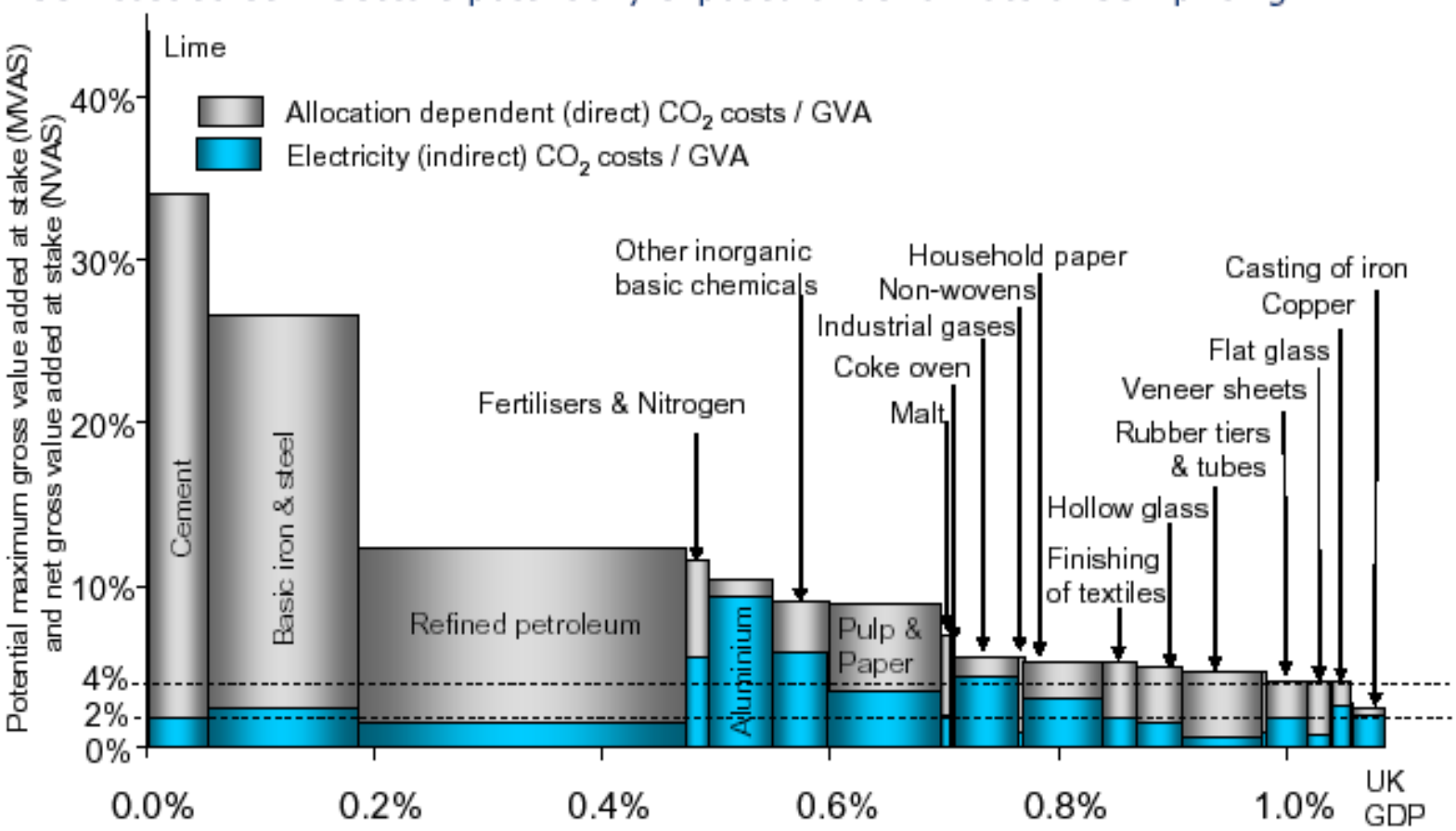
Government needs information

- National Greenhouse and Energy Reporting (NGER)
- Emission Intensive Trade Exposed (EITE) assurance

Calls to "protect" growth in EITE sectors?

	Company	Overall carbon price
Best outcome	**Surplus free permits = cash benefit**	**Deficit in permits = a high price**
Worst outcome	**Deficit in permits = cost impact**	**Surplus in permits = a low price**

Economic Impact: EU Analysis



Carbon Trust UK, 2006

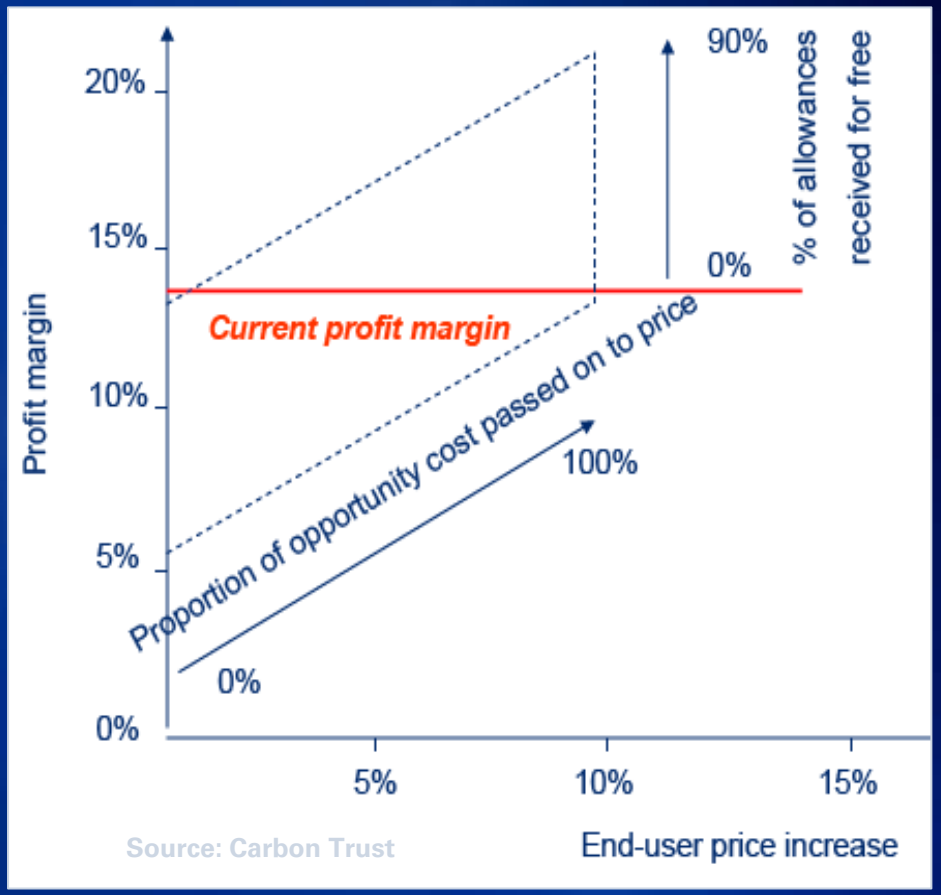
Marginal cost pricing

Free allowances combined with cost pass-through decisions determine increased profit

The graph shows that companies will pass on the new cost of carbon even if they receive free carbon allowances

The effect of free allowances for certain industries is simply an increase in the profit margin

Profit Margin and Price Increase: EU Steel Industry



Economic Consequences

EU: Did the sky fall in?

Perspective is important

Carbon price is 10X smaller than domestic energy price rises

Studies conclude: windfall profits were gained

"despite the fact that all of these industries have consistently claimed they could not pass on costs to end-users, 100% or more of the costs were reflected in price fluctuations in most of the product categories studied."

CE Delft 17/05/2010

Considerations

Measurable loss to power generation and industry from auctioning of permits?

- Can this be demonstrated?

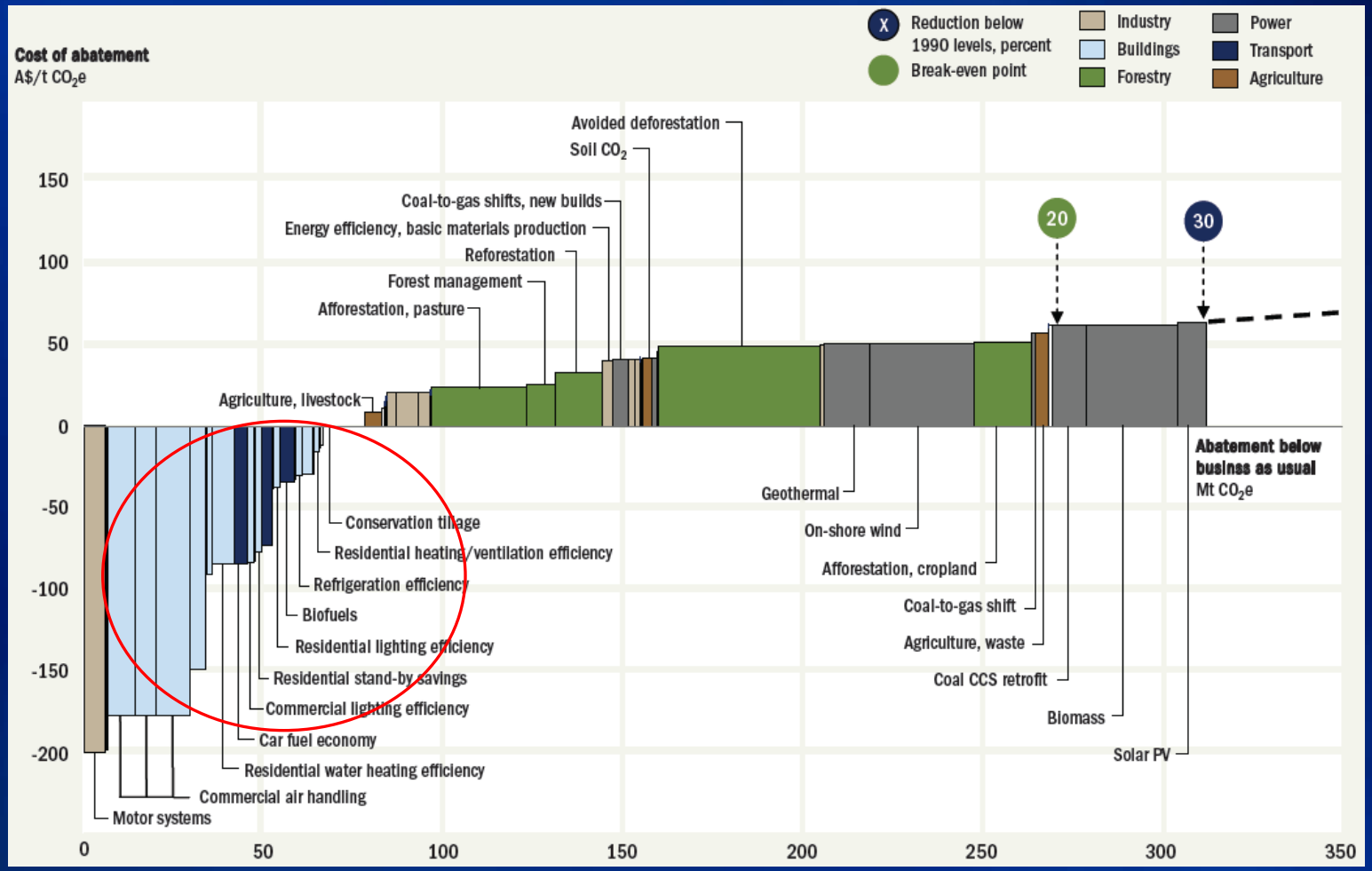
Economics

- Revenue recycling is required
- Compensation encourages rent seeking
- Polluter pays: Emitters compensating society for damage to a common good?

Politics

- Revenue recycling “a money go-round”
- Compensation “essential”

Social Compensation: Australia 2020



Note: Abatement opportunities are not additive to those of previous years
Source: McKinsey Australia Climate Change Initiative

Fuel Poverty

Problem: How to stop rent seeking behaviour

Unit cost ($ / kWh) vs. cost of consumption ($)

Average house in UK

- Double glazing
- Cavity wall insulation
- Roof insulation

UK has high energy costs

The domestic energy efficiency sector was already established

Redirected under fuel poverty and buildings energy policy

No “pink bats”

US Policy: Lesson about compensation?

American Power Act

Kerry Lieberman Bill

Proposals

Greenhouse gas reduction:

- 17% reduction by 2020
- 83% by 2050 (base year is 2005)

Establishes a carbon border adjustment tax

Applied if:

- If an international climate agreement cannot be reached
- Countries do not do enough to curb their own greenhouse gas emissions

60% of the allowances are given for free to the electric utilities

Free allowances decrease over time.

Stop in 2030

2026 a new program begins called the Universal Trust Fund.

Acap-and-dividend program.

Money in the Universal Trust Fund will go directly to US citizens.

2035, 78% of all allowances will be auctioned

Cash to Universal Trust Fund (and back to US citizens in the form of dividend

Lessons yet to be learnt

EU is not a resource extractive economy

Unexplored

- Coal mine emissions
- Competition in export markets
  - Iron ore
  - LNG
- Carbon cost on shipping
- Trade barriers

Iron ore

Australia potentially the first large iron ore exporting country with an ETS.

Three of the top five iron ore importing countries (accounting for 44% of iron ore imports) have an ETS or plan to implement an ETS.

Top 5 iron ore exporters 2007

1	Brazil	32%
2	Australia	32%
3	India	11%
4	South Africa	4%
5	Canada	3%

Main iron ore importers 2007

1	China	46%
2	Europe	21%
3	Japan	17%
4	Korea	6%
5	Taiwan	2%

ETS Potential ETS No ETS *Source: RBA Bulletin Jan 2009, Climate Strategies, Carbon Trust*

LNG

Australia potentially the first large LNG exporting country with an ETS. The top five LNG importing countries (accounting for 80% of LNG imports) have an ETS or plan to implement an ETS.

LNG exporters in 2007

1	Qatar	17%
2	Malaysia	13%
3	Indonesia	12%
4	Algeria	11%
5	Nigeria	9%
6	Australia	9%
7	Trinidad	9%
8	Egypt	6%
9	Oman	5%
10	Brunei	4%

LNG Importers in 2007

1	Japan	39%
2	South Korea	15%
3	Spain	11%
4	USA	10%
5	France	6%
6	India	5%
7	Taiwan	5%
8	Turkey	2%
9	China	2%
10	Italy	1%

ETS Potential ETS No ETS *Source: Global LNG Info*

Shipping – the problem in context

2010: Shipping = 3% of total global emissions

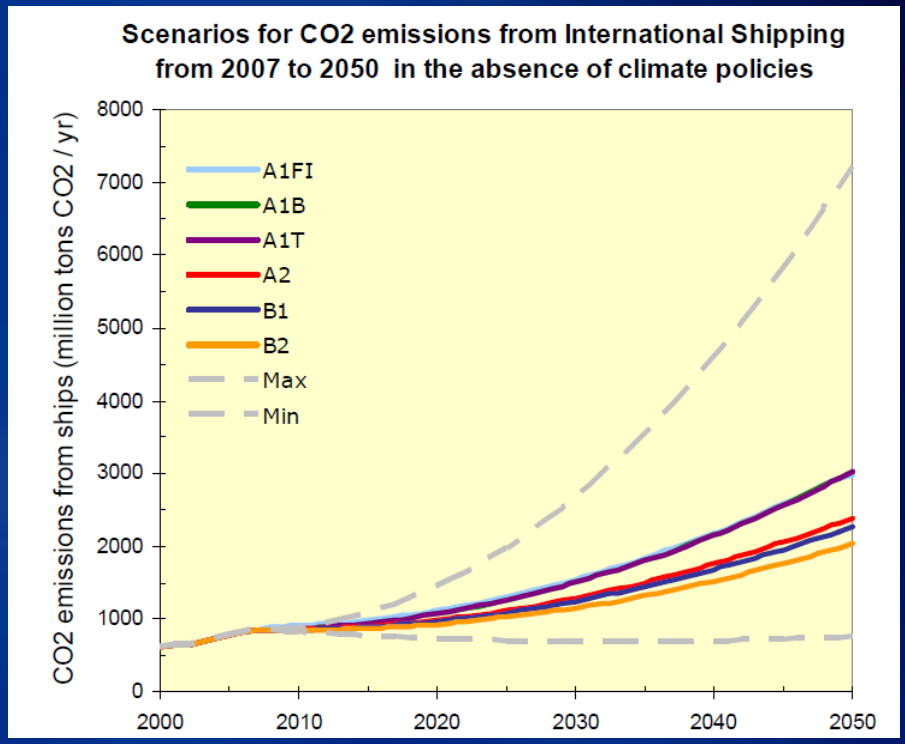
2050: Shipping = 20- 50% of total global emissions

Strong demand for carbon permits

Possible outcome

- This means a high degree of exposure to a carbon price
- Shipping can stand a high carbon price $300 / t CO2-e
- Airlines cannot

Consequence to Australia?



Second IMO GHG Study 2009

Trade lessons

Border adjustment: Curiously absent in the Copenhagen text or in public statements

- US states, EU and possibly Australia want it
- China and India don't want it
- Trade issues

Carbon cost in goods and services

Metrics being developed

Valuation of "low carbon" trade – e.g. LNG and magnetite

Bilateral and multi lateral trade in carbon permits

Continuation of a Clean Development Mechanism

The inevitability of a carbon constrained world

Provided three examples

- Shipping routes
- LNG
- Iron ore (Haematite or magnetite)

Question When will the cost of carbon be included in long-term investment decisions?

Do you want to wait five years?

Now ?

A *de facto* carbon price becomes a material issue

A carbon constrained world

Consideration of cost is not a choice

..it is a necessity

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Copenhagen Accord: implications and challenges

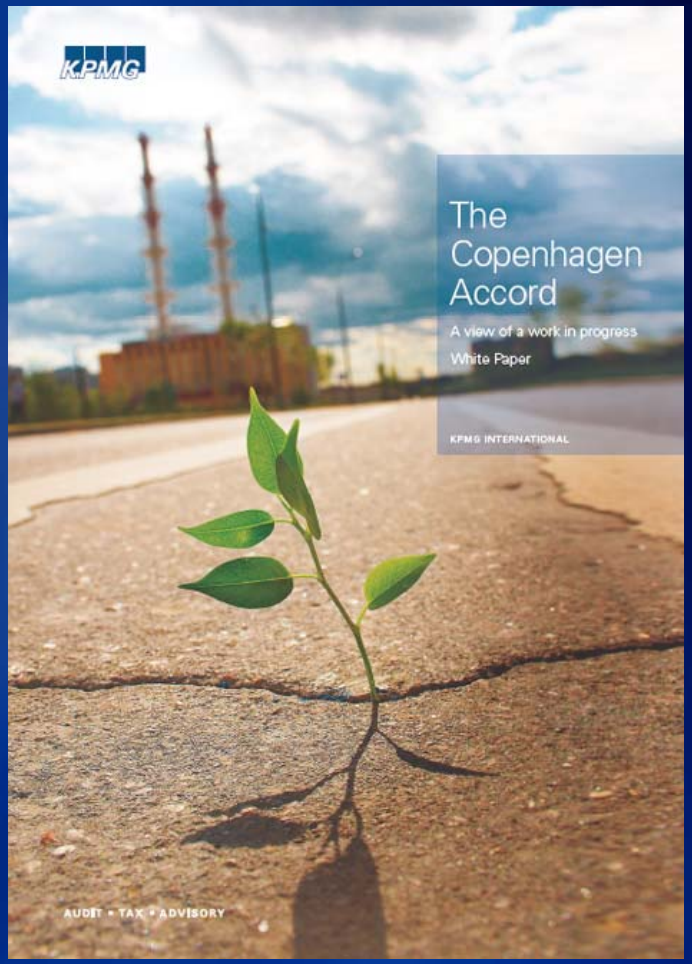
The Copenhagen Accord commits the world to limiting temperature increases to two degrees Celsius (2˚C)

Countries will have different emissions reductions targets

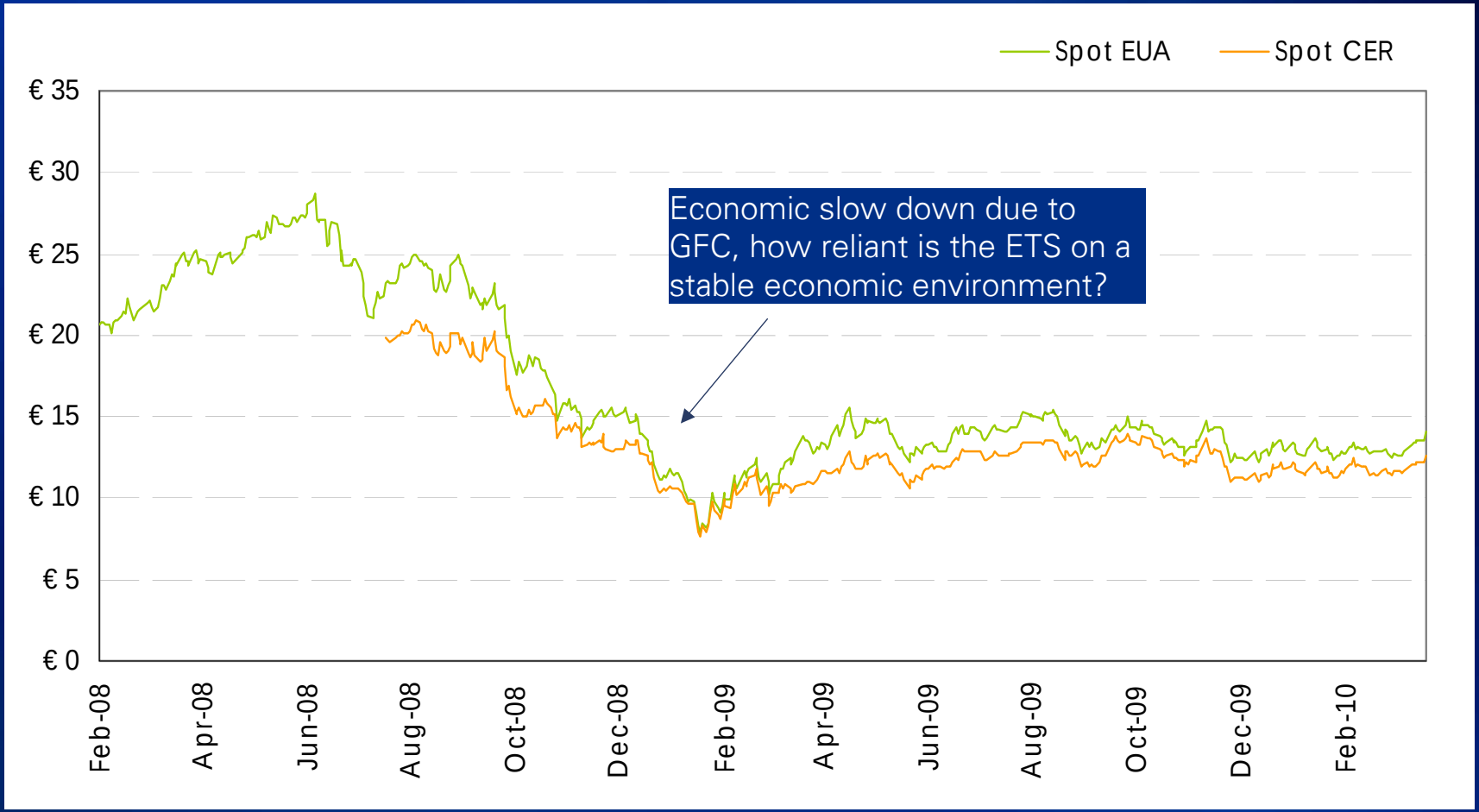
Countries need to think about adaptation

What next?

- COP 16 / Mexico: Dec 2010



Emission Trading: It works but….



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