



# Climate change policy

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## The goal

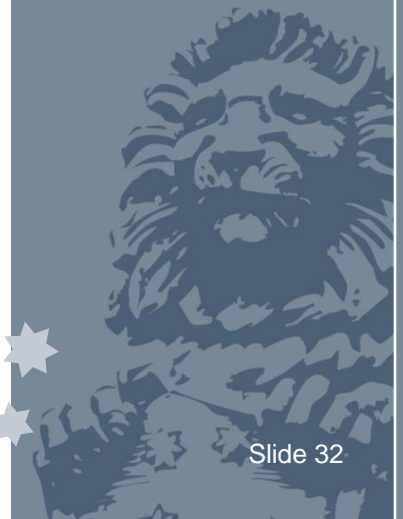
- The requirement is to reduce flow of emissions sufficiently so that the stock hits the target
- Focus tonight on mitigation
  - Adaptation is interesting too and is of interest for international cooperation but less immediate interest





## The origin of the problem

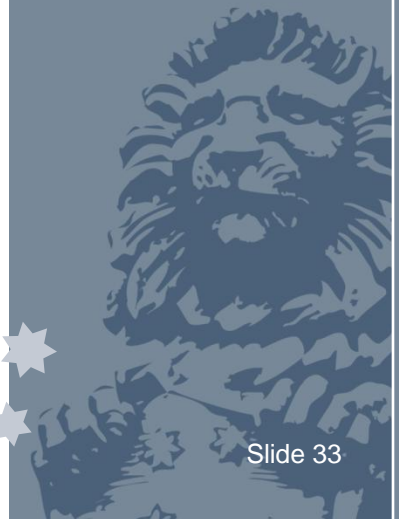
- Markets cannot solve this
  - Emitters do not take account of all the costs they impose
  - They emit too much and the aggregate is above the level which is optimal from a global point of view





## How to respond

- The response is costly
  - Individual countries have an incentive to free ride ('business as usual') on the actions of others
  - When all countries do that, the problem is not solved
- So how to organise the cooperation required across countries is a challenge





## Coordination across countries

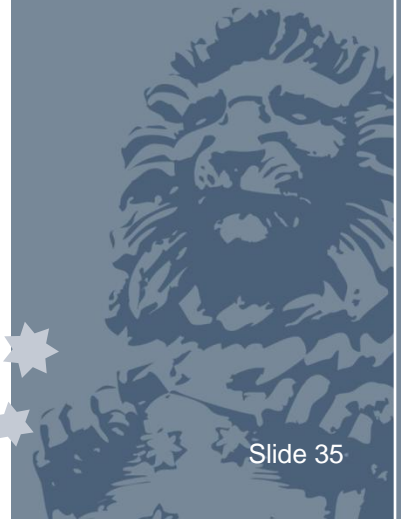
- Requirements
  1. Set a global 'budget'
  2. Share it across countries who design implementation schemes
  3. Cooperate to live within country level targets
- Targets have been discussed, lets turn to implementation





## *Options at country level*

- Economic instruments available
  - Tax (on carbon or emissions)
  - Carbon (or emissions) trading systems
- Other
  - Standards
  - Targets for particular technologies





## Choice of instrument

- Risk of error – which is greater?
  - Tax: certain price (tax rate), uncertain quantity
  - ETS: certain quantity, uncertain price
- Garnaut recommended trading scheme
  - In December 2008, the government released details of its proposed CPRS
    - <http://www.climatechange.gov.au/whitepaper/index.html>





## Implementation

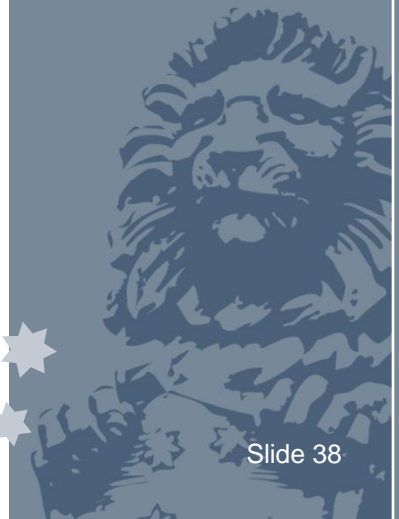
- But ....“Australian governments (are) about to face their most difficult regulatory challenge” (Australian Productivity Commission)
  - Short term costs for long term benefits
  - Redistributive effects
  - Pressures for supplementary policies
  - Lobbying incentives
- Example: [http://www.youtube.com/watch?v=hway3l\\_LPkw](http://www.youtube.com/watch?v=hway3l_LPkw)
- New measures were introduced in May 2009
  - <http://www.climatechange.gov.au/whitepaper/measures/index.html>
  - <http://www.youtube.com/watch?v=LJMgBVe6qh0>





## Recent policy development

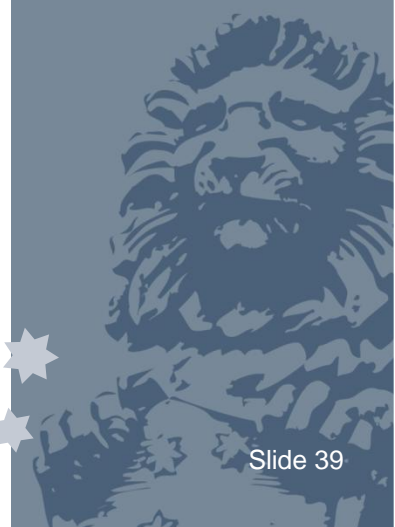
- Delayed start date of 1 July 2011 (originally 2010)
  - Permits at \$10 per tonne for the first year (no 'banking' for later use!)
  - Full trading from 1 July 2012 (with a price cap to be reviewed)
  - Revenue of \$4.5b in 2011-12 and \$13b in 2012-13
    - All the revenue used to 'transition Australian households and businesses to a low pollution future'





## New targets

- Target to reduce carbon pollution by 25% of 2000 levels by 2020
  - 'if the world agrees to an ambitious global deal to stabilise levels of CO2 equivalent in the atmosphere at 450 parts per million'*
  - 5 points of the 25 could be achieved through government purchase of international credits using CPRS revenue (such as 'avoided deforestation')
  - Then new targets for 2050 ('election mandate')
  - Otherwise cut of between 5 (unconditional) and 15 per cent on 2000 levels by 2020.





## Recent policy development (cont.)

- Business
  - Assistance for Emissions Intensive Trade Exposed Industries (EITE)
    - 'Global recession buffer' for the first five years
      - This Buffer will provide an additional 5 per cent free permits for EITE activities eligible for 90 per cent assistance, giving an effective rate of assistance of almost 95 per cent to these highly emissions-intensive trade-exposed activities in the first year of the scheme.
      - The Buffer will provide an additional 10 per cent free permits for EITE activities eligible for 60 per cent assistance, giving an effective rate of assistance of 66 per cent to these moderately emissions-intensive trade-exposed activities in the first year of the scheme.
        - » Rates of assistance will decline at a rate of 1.3 per cent per year, in line with the Carbon Productivity Contribution set out in the White Paper.





## Recent policy development (cont.)

- Business (cont.)
  - Climate Change Action Fund for 2009-10 will include:
    - \$20 million for a business information package to provide advice to businesses on how the CPRS will work and what impacts and opportunities may arise
    - up to \$100 million for Early Action Energy Efficiency Strategies for Business, including energy audits and capital investment
    - \$80 million for capital investment grants for businesses and community organisations





## Recent policy development (cont.)

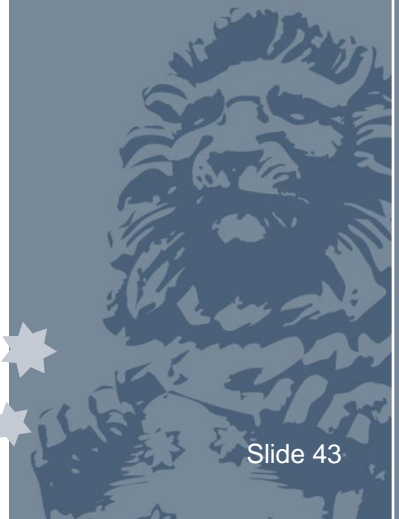
- Households
  - Efficient homes package (insulation)
  - Household assistance package
    - Cash assistance and tax offsets for low and middle income households
    - Reductions in fuel tax
  - Australian Carbon Trust
    - [http://www.climatechange.gov.au/whitepaper/measures/pubs/factsheet\\_individual\\_action.rtf](http://www.climatechange.gov.au/whitepaper/measures/pubs/factsheet_individual_action.rtf)





## Recent policy development

- Technology
  - Research
    - Australian climate change science program
    - Clean Energy Initiative (\$4.5b)
      - Global Carbon Capture and Storage Institute
      - Carbon Capture and Storage Flagships program (\$2b)
      - Renewables Australia
  - Green Car Innovation Fund
  - Renewable energy target
    - 4 fold increase to 20% of electricity supply by 2020
    - <http://www.climatechange.gov.au/renewabletarget/background.html>



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