Designing Climate Policy in an Uncertain World

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Prepared for ANU Public Policy 2013, Canberra 6 June 2013
Based on:


Overview

• What is needed in a climate policy?
• The McKibbin Wilcoxen Hybrid approach
• The Australian Government approach
• The Australian Opposition approach
• How to improve the current policies?
• Summary and Conclusion
What is the climate policy issue?

• Manage the risk of climate change given the cascading uncertainties about
  – The future path of emissions
  – The impact of emissions on the climate
  – The impact of the climate on people, ecosystems and the economy
  – The impact of the methods of reducing emissions on people, ecosystems and the economy
  – Which countries will take action and what actions will they implement
Important Considerations

- Hallmark of climate policies: longevity
  - Must remain in effect for many decades
- Some predictable changes will occur
  - Example: demographic trends
  - Can anticipate when designing and analyzing policies
- Many unpredictable shocks will eventually occur
  - Booms, recessions, energy price shocks
  - Changes in political commitment
  - Can’t know timing or severity in advance
Surprises are not hypothetical ...

• Also, not small
  – Financial crises
  – Emissions growth in China
What is the standard policy approach?

- Negotiate an emissions target and a timetable for hitting that target in the UNFCCC (e.g. Kyoto protocol)
- Implement the targets nationally using either
  - an emissions trading system
  - a carbon tax
  - Regulation
  - Subsidies.
- Trade emission permits internationally to equalize the cost of carbon
Flaws in Rigid Targets and Timetables

• Not enough knowledge to calculate the correct global target from the science
  – We should be balancing the risks of climate change against the expected costs of taking action

• No scientific basis for national targets
  – Actual emission reductions in a given country should be based on least cost globally given a global target
  – Who pays is a moral question

• The usual approach of targets and timetables has serious flaws
The Reality of Policy Design

• As understood by the Shergold Review, the world will have a patchwork of national actions rather than a centrally planned solution

• The question is how best to weave these together under the UNFCCC process, while enabling early action at low cost by major emitters.
What is Needed Nationally?

• A clear long term carbon price
  – To drive innovation and investment
• Low short term carbon prices to minimize cost
• A market to manage climate risk
  – To enable corporation and households to make long term decisions on carbon abatement and adaptation
• A policy that does not attempt to violate comparative advantage – Australia has large endowments of low cost fossil fuels
What is Needed Nationally?

- Policy should be robust to different futures and not dependent on forecast accuracy.
- A policy that has a strong constituency to support the policy under a variety of different circumstances
- Bipartisan support
McKibbin Wilcoxen Hybrid

• Announce a deep cuts annual target that is conditional on costs
• Create annual permits for each year of the target out to 2100 that can only be used in the date indicated
• Give away these permits to households and companies for compensation and to preserve balance sheets so as to finance change
• Create a market to trade these long term permits
McKibbin Wilcoxen Hybrid

• Announce a credible price collar (a cap and floor price) for carbon in the current year.
• Create a central bank of carbon who sells short term permits into the market this year to stop the carbon price rising above the cap ($10 per ton) but can also buy permits off the floor (less likely).
• The long term market gives an incentive to reduce emissions while the short term costs are fixed.
The Australian Government policy

- A carbon tax at $23 per ton in July 2012 rising to around $26 per ton in 2014-15
- Switch to a cap and trade carbon market in 2015
  - Allow European permits to trade in the Australian market
- Large subsidies to renewables
What can go wrong?

- The world may not have an agreement so carbon credits that actually reduce emissions are not available or the European Trading Market has collapsed
  - Carbon price would be very high in Australia given the target but global emissions would hardly change
What can go wrong?

• The world may have an agreement but the carbon price is less than $15 per ton because of a global recession
  – Carbon price would drop from $26 per ton to $15 per ton in 2015 and many renewable investments would fail without access to the renewable energy fund
What can go wrong?

• The world has an agreement and there is a global carbon market.
  – Renewable targets drive energy prices up but Australia buys 50% of emissions from offshore and renewables don’t penetrate the Australian market
  – Tens of billions of dollars of renewable funds have been wasted on infant industry arguments.
Outcome

- Enormous uncertainty in the return to long term investments in abatement activities
- Better for companies to invest in lobbying for a policy change that to invest in reducing emissions
Other risks

• Compensation to households has been promised in dollars and permanent tax cuts - not permits

• Risks to the fiscal position have increased
  – Revenue depend on the actual carbon price
  – Compensation depends on the forecast carbon price
Problems with the government policy

- No long term carbon price
- No long term carbon market
- Exclusions reduce the coverage so costs higher than needed
- Increased uncertainty and greater risk in the fiscal balance
- No bipartisan support
Opposition Policy

• Effectively the government pays for emissions reductions
• Plus subsidies to renewable energy
• Unlikely to reduce emissions at low cost because many low cost abatement activities not included.
• May work for small reductions but hard to see how it could be scaled up without major changes
Problems with the Opposition policy

- No long term carbon price
- No long term carbon market
- Exclusions reduce the coverage so costs higher than needed
- Increased uncertainty and greater risk in the fiscal balance
- No bipartisan support
How to improve the policy debate?

• Understand that the Kyoto world is no longer relevant
• Set longer term goals and issue permits with dates for that target
• Create a market to trade long term emission permits
• Keep all revenue in the market by using permits to compensate firms and households thus shielding the fiscal accounts
• Create a central bank of carbon to manage the short term carbon price (a tax in each year).
• Don’t allow imported permits except without clear compliance mechanisms and never for less that the price floor
• Drop subsidies and other distortions
How to improve both policies?

• Understand that climate policy is not about wedging the other side of politics nor about reducing emissions no matter what it costs.

• Climate policy is about risk management and encouraging risk taking to reduce emissions at low cost so that investments in energy generation continue to sustain economic growth.

• Long term policy requires a bipartisan agreement.
Conclusion

• Many parts of the government climate policy look like the McKibbin Wilcoxen Hybrid approach but some key parts required for generating a long term carbon price are missing and can easily be incorporated.

• The Opposition policy also has features of MWH and can be modified to be funded by the use of longer term permits.

• A bipartisan policy is essential and is possible given current policy positions.