Australian National University

Designing Climate Policy in an Uncertain World

Warwick J McKibbin

CAMA, Crawford School of Public Policy

Prepared for ANU Public Policy 2013, Canberra 6 June 2013

Based on:

- McKibbin W.J and P.J. Wilcoxen (2002) *Climate Change Policy after Kyoto: A Blueprint for a Realistic Approach,* Brookings Institution

- McKibbin W, (2007) “Climate Change Policy: From national to International” 2006 Sir Lesley Melville Lecture. published in *The Australian Economic Review vol 40, no 4, pp410-20.*

- McKibbin W. and P. Wilcoxen (2007) “A Credible Foundation for Long Term International Cooperation on Climate Change” in Joseph Aldy and Robert Stavins (eds), *Architectures for Agreement: Addressing Global Climate Change in the Post-Kyoto World*, Cambridge University Press, pp185-208.

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 that $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

www.sensiblepolicy.com