General discussion

Suzi Kerr commenced discussion with three comments:

- the potential for linkages between systems in the post-Kyoto international framework, as described by Professor Stavins, should not be limited to the Clean Development Mechanism — countries should be free to both buy and sell carbon credits
- there was evidence supporting Professor Brennan's point that people will cooperate even when theory suggests it was not in their best interests
- while a lot more work on adaptation should be undertaken, as the marginal costs of both adaptation and mitigation activities are initially low, we should be undertaking more of both.

Points raised by other participants included:

- carbon trading from biodiversity plantings on farmland could provide a win-win situation for farmers, government and the corporate sector — although another participant noted that such win-wins may not be straightforward, for example, planting trees in the upper catchments of the Murray–Darling Basin can affect water availability for downstream users
- people's orientations may not be individualistic.

The session chair, Gary Banks, then invited the panel to make some concluding comments. A selection follows.

Professor Freebairn

I would like to make two comments. The first is in relation to concerns about equity. We need to recognise that government intervention is a positive sum gain. There is no reason for intervention if it is not. But distribution *is* important in relation to the issue of whether tradeable permits are provided for free, or whether they are auctioned.

Second, we need to identify the economic, rather than the statutory, incidence of a policy. That can be tricky. In simple partial equilibrium models it depends on the relative elasticities of supply and demand. The difficulty lies with traded products,

either export or import competing and particularly if Australia goes it alone. This will have exchange rate effects, so a general equilibrium model was required. Greenhouse policies are largely an origin-based tax falling on all Australian production. This will reduce Australian exports and increase imports and cause a currency depreciation. All these effects have to be taken together.

The issue discussed by Suzi Kerr and Professor Libecap about the timing of reform was important. Suzi Kerr indicated that if there was no need for redistribution, reform was easier. On the other hand, Professor Libecap said that this won't attract the attention of politicians. So there was a trade-off between political involvement and redistribution.

A related issue is what is the most appropriate greenhouse tax base for Australia in the event that we go it alone? Are we going to use an origin base or a destination base, or exempt both imports and exports? Understanding all the potential effects of these options will require a general equilibrium model that includes exports and imports with different carbon intensities and exchange rate adjustments.

Professor Libecap

While Professor Brennan provided us with a division of the topics discussed today in terms of the size of the externality or the open access problem, another way to consider the issues was by mitigation versus adaptation. Cap-and-trade programs are an attempt to mitigate the size of global warming and its effects; whereas adaptation is about designing institutions to address a global environmental and resource problem.

There is a question of whether early mitigation would reduce subsequent adaptation costs. I studied under Oliver Williamson so I'm always thinking about information costs and transactions costs. Initially, the information costs are so large that it's hard to know exactly what the nature of the problem is and how it should be addressed. Moreover, the collective action costs are high because parties aren't sure what the net economic gains will be from committing to a particular policy. Then, after a crisis occurs — fisheries collapse or water becomes scarce — we have better information about the issue, and collective action problems are reduced.

If you include all the information and transactions costs, then early mitigation may not be socially or economically efficient. Since empirical observation supports this, it suggests there may be an underlying efficiency reason for such patterns of response. For this reason I'm quite optimistic about the likelihood of property rights regimes emerging in areas such as water, fisheries, and land use, because we are facing crises there, and the gains from a property rights regime are evident.

Professor Stavins

The notion of focusing on the easy problems first was an interesting one. I happen to be a highly risk averse individual and so I tend to do that in my personal life. Of course, that's neither efficient nor wise. It can be a prescription for allowing the larger problems to become insurmountable.

Having said that, is climate change the most important problem in the world? Absolutely not. Is climate change the most important environmental problem in the world? In my opinion, no. The environmental problems that are more important than climate change are located in the developing world, and they are indoor air pollution from cooking fires, and lack of potable water supplies.

Obviously, a global commons problem means it is in the narrowly-defined interests of individual countries not to take action — that's why a cooperative arrangement of some kind is required. On the other hand, it's striking to observe that (perhaps foolishly) the European Union, and a number of other countries, *are* taking action. Even the state of California is adopting a unilateral global climate policy. The costs to California will be vastly greater than the benefits. The smaller the political jurisdiction, the greater this problem becomes.

So it's happening and it will continue. In my opinion, by 2009 or 2010, the United States will have a meaningful cap-and-trade program, reducing emissions to 50 per cent below 1990 levels by 2050. There are two caveats on this: a deep and prolonged recession does not occur; and a major terrorist incident does not take place on US soil. Either of those would push consideration of domestic climate policy off the political table.

A border tax has tremendous political support in the United States. As I suggested, if the United States does introduce such a tax, Europe will do the same within six months, followed by the other industrialised countries. It is quite possible that the cure could be worse than the illness, unless such measures are carefully structured so as to act only as inducements for participation in the international climate regime.

In relation to international climate policy, after the 2008 presidential election, the United States will re-engage with the world in various ways, particularly under the Framework Convention on Climate Change. The big question — and this is something Australia should worry about — is whether the United States will be ready to meaningfully participate in the United Nations Climate Change Conference in Copenhagen in December 2009, given how long it takes for political appointments in a new administration to be confirmed by the Senate.

It may turn out that the post-Kyoto climate change architecture will emerge from the bottom up — for example, the linking of domestic and some regional cap-and-trade programs through emission reduction credit programs or other kinds of mechanisms.

Finally, an important way to think about climate change is to recognise that as a policy problem it has less in common with issues such as stratospheric ozone depletion and chlorofluorocarbons, than it does with issues such as global democracy or economic development in poor countries. A single policy instrument, whether negotiated or unilaterally put in place, is not going to solve either of these latter problems. What matters is whether a policy increment taken by one country or regional grouping is helping or hurting.

Having said that, it's also true that a key objective of the international process is to bring all major emitters on board, including the key developing countries. This is a huge challenge, and will require significant research in economics and good political thinking. Hence, my last comment is that there is plenty of work remaining for the Productivity Commission.

Professor Brennan

I think it is more appropriate to view Australia's unilateral global emissions plans as an act of international charity, rather than an attempt to play a role in solving a public goods problem. I would like to explore Professor Freebairn's comment that if government is to be engaged in this activity, it has to be a positive sum activity. I don't see any empirical evidence of that. Governments do lots of things (including, for example, military adventurism) which are clearly not positive sum, even in the global sense.

Second, when we talk about positive sum or win-win situations, we have to be careful to specify who the winners are. If they are not parties to the contracts — if they are not able to express the fact that they win — then whether it's a win or a loss is a second-order consideration. There are lots of win-win situations if you draw a small enough barrier — for example, cartels are win-win situations for the members of the cartel. You have to specify all the normatively relevant persons — these could be all the citizens of the world. If you do, then Australia's activity in reducing emissions is a morally appropriate thing to do. But economic tradition tells us to be sceptical about the extent to which people will pursue outcomes for purely moral reasons.

It's very likely that by 2020 we will have solved the Murray-Darling problem, but I'm not so sure that the emissions problem will be solved. Obviously Professor

Stavins thinks there is good empirical evidence of an increasing commitment to solving the problem. My question is how long is this going to last? How robust will this commitment be when countries make significant sacrifices and the level of global carbon emissions continues to rise? I think it's difficult to be optimistic under those circumstances.

Professor Freebairn

In cases of market failure, if government interferes, it should do so only on the basis of a positive sum game, even though sometimes it will get it wrong. It is also true that government has a role in redistribution, which is not necessarily a positive sum game in efficiency terms. And government has a role to play in macroeconomic stability, which I guess it hopes is a positive sum game (but they usually aggravate the cycles rather than smooth them). So I will stick with my proposition, but with these qualifications.

Concluding remarks: Gary Banks, Chairman, Productivity Commission

One of the reasons why the Productivity Commission exists is to help overcome the gap between what government should do and what it actually can do in the political context. Professor Stavins observed that there was plenty of research work for the Commission in this area and I think all participants will have ideas for further work that have come out of today's very rich discussion.

When we designed this conference some months ago, we weren't thinking that greenhouse issues would be the central focus. The fact that it featured so prominently in discussion indicates how important that issue is. Even if it's not the most significant environmental problem, it's probably the most important policy issue, particularly in countries, such as Australia and New Zealand, which are contemplating action in advance of other countries.

The Commission is aiming to provide constructive support for an evidence-based approach to policy in this area. There is a clear need for more evidence to inform both government decision making and wider community opinion. A recent survey found that although a majority of the Australian population supported an emissions trading system, there was little understanding of what an emissions trading system was.

There is plenty to do and a lot of ideas have been generated by today’s discussion. I would like especially to thank the overseas speakers who prepared papers and came to Australia for this one-day conference. Professor Libecap and Professor Stavins will also be presenting seminars at the Commission, so we will benefit further from their insights. It’s been a great day and I thank everyone who participated.