

Quiggin, J. (2002), 'Low-cost Kyoto: 272 economists mightn't be wrong', *Eureka Street* 12(9), 8–10.

On 14 August 2002 the Australia Institute released a statement signed by 272 academic economists, around a third of the entire profession, calling on the Federal government to ratify the Kyoto protocol for action to reduce emission of carbon dioxide and other greenhouse gases. Among other things, the statement said:

"Policy options are available that would slow climate change without harming employment or living standards in Australia, and these may in fact improve productivity in the long term.

Economic instruments – such as carbon taxes or emissions trading – will be an important part of a comprehensive climate change policy. Revenue raised from carbon taxes or the sale of permits can be used to reduce taxes elsewhere in the economy."

The signatories included economists as diverse as Peter Dixon, John Hewson and John Neville. Bearing in mind that most surveys attract response rates of only around 40 per cent and that, for a variety of reasons, many academics are not prepared to sign public statements of this kind, this was a stunning response.

Opponents of Kyoto promptly began soliciting signatures for a 'counterpetition'. But at the time of writing (more than six weeks later) the counterpetition had not been released, and it was widely rumored that the list of signatories was embarrassingly short in

both numbers and quality.

The only prominent economist who has opposed ratification of Kyoto is Professor Warwick McKibbin of the Australian National University. McKibbin's position reflects the fact that he is, along with American Peter Wilcoxon, the author of a competing proposal which he hopes Australia will adopt. Since the US Administration has made it clear that it will do nothing at all to mitigate global warming, and all other developed countries have ratified Kyoto or announced plans to do so, Australian ratification of Kyoto would effectively spell the end of the McKibbin-Wilcoxon plan.

Unlike McKibbin, most Australian opponents of Kyoto support the US 'business as usual' position. However, as the scientific evidence in favour of the global warming hypothesis has firmed, advocates of inaction have found it increasingly difficult to persuade reputable economists to support them.

The fact that the Australian economics profession strongly supports Kyoto may seem surprising in the light of the popular view of economists as narrow-minded beancounters. It is even more surprising in view of repeated protestations from the Howard government and others that ratification of Kyoto would be disastrous for the Australian economy.

In reality, however. Kyoto is a textbook economic response to what economists call an 'externality' problem. Fossil fuel use or land clearing by any one individual or country makes a sufficiently small difference to global warming that there is little reason for the

individual or country concerned to take into account. The effects are mostly 'external', that is, felt by others. When externalities arise within a single jurisdiction the standard economic prescription is a tax (in this case, a 'carbon tax'). In more complex cases, the economists' solution is the creation of a limited set of tradeable 'emissions rights'.

The Kyoto agreement sets targets for emission reductions by individual countries but is agnostic as to the policy approach that is used to reach them. Subsequent agreements at Bonn and Marrakesh laid the basis for a system of internationally tradeable emissions rights. Individual countries can meet their targets through regulation, carbon taxes or purchase of rights from other countries that have already met their targets. This approach is generally supported by economists, and even alternatives such as the McKibbin-Wilcoxon plan are only marginal variants.

The other question relates to the cost of implementing Kyoto, and of Australian ratification. Numerous economic modellers have concluded that these costs are very small, but I will rely on the work of Warwick McKibbin, who can scarcely be accused of pro-Kyoto bias.

Assuming other countries seek to reduce their emissions, Australia will suffer some reduction in coal exports. McKibbin estimates that this will reduce GDP by around 0.5 per cent. **But given that other countries have ratified, McKibbin estimates that, until about 2015, Australia is better off ratifying Kyoto and implementing emission-reduction measures than staying out.**

The gain is reversed after that, and a complete estimate of net costs requires the calculation of a 'present value'. The idea of a present value is to reduce a series of future gains and losses to a single present day value, the amount that would have to be invested (or borrowed) at a given rate of interest to yield an equivalent flow. McKibbin estimates that (taking existing measures are taken into account), ratification will reduce the present value of income for the period 2000-2050 by 0.16 per cent. This is enough for McKibbin to justify his own opposition to Kyoto, but it's a trivial sum in the context of the global debate.

To get a feel for the magnitudes, it's useful to observe that 0.16 per cent of GDP is equal to two weeks' economic growth. In other words, suppose that we all took it easy for two weeks, say, to watch the Olympics. During those two weeks the economy kept producing the same level of output but there was no growth in productivity. Suppose that after the two weeks were finished the economy returned to the previous rate of growth, but that the growth missed in those two weeks was not regained. This would be roughly the impact that McKibbin is modelling. Actually, since there's no net impact before 2020, a closer parallel would be that nothing happened until 2020 and that we missed four weeks growth then. In current monetary terms, 0.16 per cent of GDP is around \$1 billion per year. By contrast the Great Barrier Reef, which will almost certainly be severely damaged if global warming is not controlled, is estimated to contribute around \$2 billion a year in economic benefits alone, and the ecological costs of losing it are virtually incalculable

There is, as always, a catch. Kyoto is a low-cost preliminary response to the global warming problem, not a solution. Assuming that scientific evidence over the next few years confirms the mainstream view on global warming

represented by the International Panel on Climate Change (IPCC), substantially more serious action will be needed.

Whereas the Kyoto targets require most developed countries to hold emissions at 1990 levels, a serious response will require both substantial cuts in emissions from more developed countries and constraints on the emissions of less developed countries. Unlike Kyoto, this will have a discernible impact on material standards of living. But the alternative of doing nothing will have consequences too awful to contemplate, including species extinction in an unparalleled scale.

In essence, Kyoto is a low-cost agreement that sets up the mechanisms, such as emissions trading systems, that will be needed for any serious response to global warming, and requires a preliminary show of good faith from the developed countries. In the unlikely event of new evidence shows that the global warming problem has been overstated, or of the invention of a cheap and simple technological 'fix', we will have occurred a modest cost for no benefit. But if the problem is as bad as the IPCC says it is, or even worse, ratification of Kyoto will greatly reduce the costs of reaching a more comprehensive solution in the future.