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The McKibbin-Wilcoxen Blueprint for Climate Policy

The problem with the climate change debate in Australia is that the issue of ratification of the Kyoto Protocol is rarely separated from the question of whether Australia should take action on climate change. The Kyoto Protocol might achieve the goal of taking effective action on climate change but its many flaws suggest that it is more likely to fail than to succeed. One fundamental problem with Kyoto is the approach of rigid targets and timetables for reducing greenhouse emissions irrespective of cost. Another problem is the attempt to have a centralized and integrated regulatory regime rather than coordinating approaches across countries recognizing the range of different institutional structures and stages of development in the major emitting countries. There are alternative approaches.

One alternative to the Kyoto approach is a policy of using tax payer money to fund selected technological solutions. Whether it is removal of carbon from coal or subsidies to renewable energy, this is a strategy that may or might not work. The outcome from a policy of picking technological winners is usually a reflection of the relative lobbying strengths of the various industries rather than reflecting a process of optimal policymaking under uncertainty. Another approach is to mandate targets for renewable energy in the energy system. This also fails to manage uncertainty at minimum cost.

What is required to address climate change is a middle ground which encourages the development of a range of alternative technologies many of which we don't yet understand. This outcome can be achieved without massive handouts from tax payers but it requires clarification of long term property rights over carbon use and a price for carbon that reflects the expected costs of future carbon emissions.

Designing such an approach depends critically on recognizing the uncertain nature of the climate change problem. Because of the fundamental uncertainties associated with the science of climate change, it is impossible to say exactly how much warming will occur over coming decades. These uncertainties have tended to polarize the public debate over what should be done about climate change. Because it is impossible to *prove* that global warming is a large and immediate threat, some industry groups have argued that it would be foolish to take expensive measures to prevent it when we're not even sure there is a problem. At the other end of the spectrum, environmental groups have argued that global warming is very *likely* and that its consequences could be severe. These groups have lobbied for large cuts to be made in carbon dioxide emissions soon.

Politics being what it is, this polarization has led to terrible public policy in most countries. In order to satisfy environmental groups, in 1997 the governments of most developed countries (including the United States), signed an ambitious international agreement known as the Kyoto Protocol to reduce greenhouse

gas emissions substantially below the rates that prevailed in 1990. It has since been substantially diluted. The United States and Australia have not ratified the agreement.

A policy such as the Kyoto Protocol that is very strict in principle but completely ineffective in practice is not a realistic or prudent way to approach the climate change problem. An ineffective policy is not prudent because it is quite clear that human activity is raising global concentrations of carbon dioxide. While climatologists disagree about how much warming will occur and when it will happen, virtually no one seriously suggests that we can emit as much carbon dioxide as we want into the atmosphere without any adverse consequences. At the same time, a very strict policy is not realistic. Frankly, too little is known about the damages caused by climate change and the costs of reducing emissions to conclude that it must be stopped at any cost. To pretend that climate policy doesn't need to take costs into consideration is to guarantee that any climate change treaty will be rejected by many governments.

A sensible climate policy should have five key features. First, the policy should slow down carbon dioxide emissions where it is cost-effective to do so. Second, the policy should involve some mechanism for compensating those who will be hurt. Third, since climate change is a global problem, any solution will require a high degree of consensus both domestically and internationally. However, it is not realistic to think that a rigid global regulatory regime for greenhouse policy can ever be implemented. Few countries want to relinquish sovereignty over setting their own polices especially when the policies in question can have large economic effects. Fourth, the policy will need to allow a core group of countries to continue to participate even if countries exit the system at certain times. Finally the regime should be able to adapt over time as new information about the climate and the ability to reduce emissions is revealed.

One policy that meets these requirements is the McKibbin Wilcoxen Blueprint. The Blueprint is a hybrid system of annual and long term emission permits. The annual permits focus on equating the costs and expected benefits of taking action whereas the long term permits focus on achieving targeted reductions in emissions but only along a low cost pathway and without specifying in which year these reductions will be reached. Each participating country would take three concrete steps. They would issue a fixed quantity of long term permits or property rights to emit carbon based on some target (possibly 1990 levels). The time horizon of these rights needs to be at least as long as the time horizon of energy investments (30-50 years). Some of these long term permits can expire over time in so as to tighten the target. Secondly countries would require producers of energy embodying carbon to hold an emission permit for every ton of carbon in their production. Thirdly countries would be allowed to issue annual emission permits of sufficient quantity to supplement the long term permits in order to ensure that the price of annual permits do not rise above an internationally agreed price. Although the annual price is fixed the price of long term permits will reflect the expected future price of annual permits. None of these

permits would be traded internationally – the annual permits are the same price everywhere so no trade is required.

The net effect of the policy would be to discourage increases in emissions, and to encourage reductions where they are cost-effective, but without levying a sudden multi-billion dollar burden on fuel users. The key to this proposal is that the price of annual permits would be fixed and set low enough to keep the costs of the policy modest, at least until some of the uncertainties about climate change have been resolved. A reasonable figure would be US$10 per ton of carbon. Once a firm receives an initial allocation of long term permits from its government, it will have to decide whether to buy additional permits, sell some of its allocation, or stay with exactly the number it was given in the short term. If it does not buy or sell permits, it can continue with its existing practices at no additional cost (although it gives up the revenue it could have earned by selling its permits). If it needs to increase its carbon-emitting activities, however, it will have to buy additional permits at a price of US$10 a ton, giving it a clear incentive to avoid increases in emissions. At the same time, if the firm could reduce its emissions, the permit system would give it a strong incentive to do so: avoided emissions could be sold on the permit market at a price of $10 a ton. Indeed, many firms have claimed they are willing to undertake low-cost carbon abatement. The permit system we propose will reward firms for these endeavors. The more effort a firm puts into reducing carbon emitting activities at low cost, the higher its profits will be. Firms could also buy long term permits to reduce the uncertainty of the return on long term energy investments.

A key feature of the policy is that it is flexible. The annual permit price could be adjusted as needed when better information becomes available on the seriousness of climate change and the cost of reducing emissions. Equally important, it would be easy to add countries to the system over time: those interested in joining would only have to adopt the policy domestically and no international negotiations would be required. This flexibility is crucial because it is clear from current negotiations that only a small subset of countries would agree to be initial participants in a climate change treaty. Also countries can defect from the scheme without debasing the value of the permits for those countries staying in. Thus the system is sustainable.

Since the policy does not focus on achieving a specified target in any period at any cost (indeed the cost is low and known with certainty over ten year steps), such a system would be far more likely to be ratified, and by more countries. It is a decentralized, coordinated system implemented by individual countries rather than a centralized system, and is thus more politically attractive. It could be implemented in Australia today.

It is time to get realistic about climate change. The debate must move away from ideological battles over impractical goals and un-implementable policies to a discussion of policies that could be concrete but cost-effective steps to slow growth of carbon dioxide emissions.

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