

The Australian

Swan hides his dodgy carbon model

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- From: **The Australian**
- July 29, 2011 12:00AM

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EARLIER this week, Wayne Swan said the results of updated Treasury modelling of the government's proposed carbon tax would not differ much from those already released.

If our Defence planners told us it didn't matter to their modelling whether our next war was with China or with Vanuatu, we would worry about the quality of their planning.

So it is not reassuring that increasing the starting carbon price by more than 10 per cent, closing the Hazelwood generator early, slashing the number of permits that can be purchased overseas, precluding the borrowing of permits from the future and using realistic assumptions about what other countries are doing would have little impact on the policy's estimated costs. That said, many adjustments that should be made will likely not be made. The modelling will therefore remain an exercise in the economics of nirvana: easily assumed, less easily attained. But even were significant adjustments made, there is a technical reason why the model's estimate of costs might change little.

That reason is a quirk in Treasury's modelling. Called the "marginal abatement cost curve" or MAC, it provides abatement like manna from heaven, that is, at no cost. But it is even better: for the more the price of bread rises, the more manna showers from the skies. Or in this case, the higher the permit price, the more abatement we get for free.

The mechanics of this device can be explained as follows. As the carbon price rises producers replace more emissions-intensive processes with less emissions-intensive alternatives. This typically involves some investment costs. For example, a firm might spend an additional \$100 on scrubbers to reduce emissions. As the scrubbers must be paid for, the firm's costs and prices would rise, causing, among other things, changes in demand.

But here comes the interesting bit. As the carbon price rises, the MAC kicks in, and provides further reductions in emissions, but without requiring new investment. And the higher the permit price, the more of those reductions it generates. It is as if the scrubber, without needing to be replaced, suddenly eliminated more emissions simply because the carbon price had increased.

And the savings generated by the MAC are not trivial. Indeed, thanks to a parameter in the model, in principle up to 90 per cent of emissions affected by the MAC could be eliminated at no cost. In practice, the reductions are unlikely to approach that ceiling. In the modelling for Australia, for example, the MAC does not apply to some sectors that are large emitters of carbon. But it does apply to other important activities, including mining.

And because the quantity of free emissions reductions increases as the carbon price rises, the model reduces the estimated

cost of toughening the policy, as the government has done by (for instance) limiting purchases of permits from overseas.

How can such a mechanism be justified? The best gloss that can be put on it is that higher carbon prices would induce emissions-savings innovation beyond that assumed in the base case. And that could indeed happen. But if that is what the MAC is assumed to be doing, there are at least three problems with the way it does it.

First, induced innovation is highly uncertain and involves long delays: there can be many years between a price change and the successful technical advances it has encouraged. And even once innovations are available, their spread is typically slow. But the modelling assumes a virtually immediate and predictable response.

Second, once emissions are substantially reduced, finding innovations that can reduce them further becomes ever more difficult. But in Treasury's MAC curve, the opposite occurs.

Third and last, the best things in life may be free, but new technologies are not. Innovations are costly and must be paid for. Indeed, it is the prospect of reaping those rewards that ensures innovations occur. That Treasury, of all places, would instead assume a free lunch is truly remarkable.

How big is the resulting error? Without access to the model, no one can tell. It is therefore not surprising that the government refuses to disclose it. But this refusal hardly flatters Treasury's hard work and the millions of taxpayer dollars spent on the model. Has Swan so little confidence in his department that he cannot face the risk of criticism?

Nor is that refusal consistent with a loudly proclaimed commitment to science. For science grows by disclosure and refutation, not secrecy and manipulation.

And it is even less consistent with the pledge of openness on which Labor was elected. But few governments have shown as flexible an attitude to the relationship between principles and practice as that of Julia Gillard. It professes a belief in informed argument but works on the basis that what others don't know can't hurt it. Little wonder it is reduced to selling its policies like bars of soap. And its credibility lies in tatters. A modest step it could take to restore confidence would be to release the Treasury model. Until that is done, Swan's assurances will be little more than wasteful emissions of carbon dioxide.

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