The Oil Drum: Australia & New Zealand
DISCUSSIONS ABOUT ENERGY AND OUR FUTURE

Emissions taxes and trades

Posted by Big Gav on July 8, 2008 - 9:17am in The Oil Drum: Australia/New Zealand
Topic: Environment/Sustainability
Tags: australia, carbon tax, economics, garnaut report, original, politics [list all tags]

*This is a guest post from **kiashu***

Here in Australia Garnaut, an economist, is undertaking a study on what to do about Australia's greenhouse gas emissions. He has a website about it, and has released a draft report on it. He is in favour of strong action, though what he calls "strong action" and what you and I call "strong action" may be rather different things.

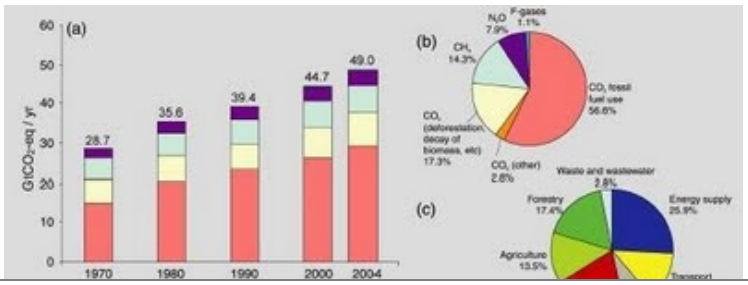
There are two basic ways people think of for dealing with emissions of unpleasant substances, aside from banning them entirely - **tax** them, and **trade** them. In taxing them we say, "emit as much as you like, but you have to pay for it." The theory is that people will reduce spending on things with that cost attached to them, thus reducing emissions of it, and that the revenue raised can be spent on dealing with the problems from it. In trading them we say, "you can only emit this much, and you must pay for it." So the government sets a target amount for emissions, creates permits for that much, and lets companies buy and sell these permits as they wish.

The government and Garnaut are in favour of an emissions trading scheme (ETS). I'm not. Remember the point of our schemes is to stop carbon emissions. *We did not abolish outright slavery by setting up a slave market*. That only encourages it. (Of course it's still not entirely abolished even today, but fewer people as a proportion of the world population are enslaved than ever before, and not because someone established a cap and trade system for slaves.)

The first thing is that in any scheme, you want to cover as much of the emissions as possible - especially if we're talking about an 85% reduction by 2050 (to avoid more than 2C warming), obviously we have to deal with more than 85% of the emissions. Which covers more of the emissions, trading or taxing?

Because of arguments about how much this or that emits, and because of the temptation to exclude certain favoured industries or products (like petrol), a **trading scheme** is likely to cover less of the emissions than taxing would.

If you look at a picture of the different contributors to global emissions



then you see that, rounded to the nearest percent, the contributors are,

- Burning fossil fuels, 57%
- Deforestation, 17%
- Livestock & rice-growing (methane), 14%
- Excess fertiliser (nitrous oxide), 8%
- Cement-making and chemicals (”other CO2″), 3%
- Fluorine gases, 1%

The ETS aims only at the fossil fuel burning, only 57% of the problem.

The auction system also gives the government a financial incentive to *not* lower emissions in total. We’ve already seen in Australia how with taxes on gambling and commodities governments have been able to reduce income and company taxes, and are thus reluctant to reduce gambling or the extraction of mineral resources. There’s a danger of that with an ETS. They may be unwilling to reduce the total permits traded, and indeed will have an incentive to increase the traded permits to increase revenue. "Let them emit just a *little* bit more, we can reduce income taxes and get more votes..."

Further, since they’re auctioned in a free market even if *willing* the governmments may be *unable* to reduce them. They’d have to buy them back, higher demand means the price rises, so in a buyback the price rises; this limits financially how much the government can buy back, thus preventing a great decline in emissions.

And again, the ETS covers only fossil fuels, thus only 57% of the problem - and may not even cover petrol (politically untenable to make the price go up at the bowser), so *less than half the problem* is being dealt with.

If we had a **carbon tax**, it could cover a larger part of the problem. We could simply tax all fossil fuels or fossil fuel derviatives (artificial fertilisers, etc) the moment they come into contact with the economy (are dug up, imported, etc).

This would hit the 57% from burning fossil fuels, hit the 1% fluorine gases (they use hydrocarbon inputs), and about 4% or half of the nitrous oxide emissions (since they come from artificial fertiliser), bringing us up to 62%.

This would have flow-on effects to the methane from livestock, since holding so much livestock is only possible with fertiliser-boosted grain, pasture and oilseed crops; pessimistically the 7% from livestock might only halve to 4%. Thus, 66%.

By having a carbon tax on timber and wood products, we could also hit the 17% deforestation, bringing us to 83% of the problem dealt with.

That would leave us with 3% from cement-making and other industrial chemical processes, and 14% from land use issues, still a bit short of dealing with 85% of the problem. Nonetheless it would take us much closer than an ETS.

If emissions declined, the government could simply raise the carbon tax on the remaining emissions to get the same revenue; thus avoids the incentive to encourage emissions inherent in the ETS. If emissions rose despite the tax, again the government could increase the tax, and in

any case it could spend the extra revenue on renewables, afforestation and so on.

Garnaut favoured ETS because he is an economist, and economists always favour solutions which give us more things to buy and sell. That is because the GDP, the "gross domestic product" is a measure not of the total *production* of the country, but of the *money value* of all buying and selling. So if you spill oil and have to pay $50 million to clean it up, the economy "grew" by $50 million, just as it would if you spent $50 million on a school, or hospital, or prison, or security for a visit by the Pope. So putting in place an emissions trading scheme allows us to say that the economy is growing. "Look, they bought $50 million of emissions permits, we are all $50 million richer!"

My prediction is that if an ETS comes into place, over the next decade Australia's emissions may rise, they will at best stay static, and they certainly won't reduce even a bit.

Cross posted from GWAG.