

## Nicholas Stern's Immaculate Conception

Sir,

It was good to see David Henderson's comment in the April 2006 Newsletter ('Economics, climate change, and governments') but I feel that both he and his eight coauthors in their submission to the Stern Review have been too kind to Nicholas Stern's keynote paper 'What is the economics of climate change?' For the most extraordinary feature of that paper was not just its blind acceptance of the Kyoto consensus but also its disregard of all previous work on the economics of climate change. The only economists cited by Stern are those he probably cut his teeth on as an undergraduate, Pigou and Coase, but while they still have much to teach us (and Stern) there have been more recent contributions.

Stern's neglect of the contributions by Cline, Mann, and Mendelsohn (all readily available in Lomborg, 2004) to analysis of the costs and benefits of avoiding climate change is wholly unprofessional. One hopes that his Review will make some effort to provide estimates of the cost-benefit ratio or economic rate of return from the benefits of avoiding the costs of climate change. Stern's own preference for wild generalisations (such as 'changes in the Indian monsoon which could have a huge impact on the lives of hundreds of millions of people in India, Pakistan and Bangladesh' (p.12) as if those millions have not successfully survived such fluctuations over millennia) is not encouraging.

Stern offered no quantitative cost-benefit analysis. But one of the external contributors to his Review, John Quiggin, asserts that the costs of climate change avoidance in the UK would only amount in total to at most 3 per cent of national income, or just one year's growth. Quiggin has since raised this figure to 5 per cent of national income for a country like the UK. There are various conceptual and empirical errors in Quiggin's analysis, but his assessment of the cost suggests the minimum required value of the benefit of avoiding the costs of climate change needed to yield an acceptable return on the cost incurred in terms of forgone national income.

Thus 5 per cent of the UK's national income in 2005 of US\$1,600 billion (at 2000 prices) amounts to US\$80 billion. Assuming these costs were incurred from 2005 to 2050 (the target date set by the Blair government for reducing the UK's CO<sub>2</sub> emissions by 50 per cent), the saved costs of climate change to the UK — and hence the benefit from prevention (assuming of course that sufficient other countries join in the task to secure prevention) — would need to be US\$40 billion a year after 2050 through to 2100 (for a total of \$2,000 billion) to yield a real rate of return of 7 per cent and a positive net present value today at a 7 per cent discount rate.

Cline (2004) amongst others has argued that because the benefits of climate change avoidance accrue so many years in the future while the costs have to be incurred as soon as possible, use of normal discounting and rate of return procedures is not appropriate. However he proposes that while there should be a zero rate of 'pure time preference' that should be supplemented by a marginal utility adjusted 'social rate of time preference' with respect to future expected growth of consumption, arriving at an SRTP of 1.5 per cent if future consumption (after the end of climate adjustment) grows at one per cent p.a. and the absolute value of marginal utility is 1.5.

Ironically, Cline's approach is a two-edged sword. With his SRTP and Quiggin's costs at \$1.784 billion p.a. from 2005 to 2050, then the benefit of climate change avoidance need only be \$3.35 billion from 2051 to 2100 for a positive NPV. That makes it less worthwhile (not more) for this generation to take the trouble to reduce its income for the sake of its grandchildren.

But in any case Cline's SRTP assumptions are questionable. OECD countries are becoming accustomed to rates of growth of consumption of up to 3.5 per cent p.a. and more. Retaining Cline's marginal utility at 1.5 produces an SRTP of 5.25 per cent. That means the benefit to the UK of avoiding climate change has to be \$19 billion a year from 2050 to 2100, for a total of \$950 billion relative to the cost of \$80 billion, bearing in mind that the benefit is dependent on all other major emitting countries following the UK's lead and willingness to bear the costs for benefits that may well never emerge at all. Even then \$950 billion seems a gross over-estimate of the costs of droughts and occasional flooding in East Anglia and other parts of the country relative to Stern's neglect of the benefits of longer growing seasons.

Stern's reluctance or inability to put a figure on the benefits to the UK relative to an estimate of the costs suggests that his Review will be equally myopic. Stern is now Chief Economist in the UK Treasury, not the World Bank nor any putative World Treasury. Until the British Government can persuade the whole World to sign up to its 50 per cent emissions reduction target date of 2050, the best advice his Review can give to Messrs Blair and Brown is to adopt a free-rider strategy, and refuse to undertake any avoidance measures until all other major emitting countries join in the task. That is the tragedy of the global commons, another concept that appears to be absent from Stern's own education.

Reference: Cline, W R, 2004. 'Climate Change', in Lomborg, B (ed) Global crises, global solutions (Cambridge, CUP), 13-43.

Tim Curtin  
Australia National University