Economics, ethics and climate change

Dr Simon Dietz
London School of Economics

Outline: two key issues

1. Climate ethics: should welfare economics guide policy decisions?
2. The Stern Review controversy: setting ethical parameters in the standard welfare-economic model

1. Climate ethics: should welfare economics guide policy decisions?

Is climate change the ultimate externality?

- Four essential features:
  1. Global in causes and consequences
  2. Long-term and persistent
  3. Highly uncertain
  4. Worst-case scenarios are very worrying
- Ethical considerations are thus fundamental
  - Conflicting interests of people in different regions, time periods and future states of the world
  - The meaning and relevance of 'interest' – i.e. what determines human well-being
  - {The possible interests of non-humans}

Standard welfare economics takes a particular approach to ethics: there are others

1. Let social welfare be an aggregate function of the utilities of all individuals considered
   - In: Utilitarianism; welfarism; anthropocentrism
   - Out: Non-consequentialist theories of ethics; other types of consequentialism and utilitarianism
2. Social welfare is the unweighted sum of individual utilities
   - In: utilitarian social welfare function
   - Out: other social welfare functions
3. Individual utilities depend on aggregate consumption of goods and services
   - In: Preference-satisfaction utilitarianism; perfect substitutability between man-made and natural
   - Out: Other forms of utilitarianism; complementarity between man-made and natural

Should strong action on climate change be justified on rights and/or obligations?

- It is well known that economic appraisal can lead to egregious outcomes
  - "It is quite likely that a cost-benefit analysis in ancient Rome of the spectacle of throwing Christians to the lions in the Colosseum would have come up with a positive result" (Beckerman and Pasek, 2001)
- A popular alternative is to assert the rights of the victims of climate change (in the developing world and in the future)
- Or we could just focus on being virtuous, in the modern sense of Aristotle
- Or we could deduce the properties of an intergenerational social contract

- But comparisons of the consequences of policies seem essential
  - Plausible trade-off between present-day and future rights to a basic standard of living
- The problem may well be the measure of well-being on which welfare economics currently relies – aggregate consumption
  - What about agency? The capabilities approach of Sen
  - What about basic needs? Does a concave utility function capture this adequately?

2. The Stern Review controversy: setting ethical parameters in the standard welfare-economic model

A sketch of the controversy

- The conclusion of the Review – strong and immediate action to reduce greenhouse gas emissions – is thought to depend on the discount rate applied (partly true)
- Ramsey formula for the social discount rate:

$$r_{s,t} = \delta + \eta g_{s,t}$$

  - δ is the rate of pure time preference or utility discount rate
  - η is the elasticity of the (social) marginal utility of consumption, a measure of inequality aversion
- In Stern, $\delta \approx 0$, $\eta = 1$, $g \approx 1.3\%$ per year (net of climate change), so $r \approx 1.4\%$ per year
- Others have set δ and η so that $r = 5\%$ per year or more

Descriptive versus prescriptive

- This is an old (and slightly repetitive) debate between two standpoints
- A descriptive approach
  - δ and η must be consistent with people's preferences, as revealed in today's market place
  - And/or δ and η must be consistent with public sector discount rates
- A prescriptive approach
  - Make direct and basic ethical judgements on δ and η
  - Could point in either direction, but is often used to argue in particular for low δ

The problem with using market data to reveal ethics

1. Market prices ≠ social valuations (this is actually the ultimate irony)
2. Wealth affects market behaviour
3. Even long-term markets such as for certain futures and for pensions are outlasted by climate change
4. Consumer choices ≠ citizen choices

The problem with revealed ethics as a whole

1. To correctly infer ethical judgements from observed behaviour, your (unique) model of choice must match that of the individuals studied
2. Revealed preferences = true preferences iff perfect information and rational behaviour
3. Revealed behaviour in one context must be valid in another, despite the many particulars of any situation
4. Personal choices ≠ social choices
5. Many of those with an interest are unborn – problem of representation

The argument for policy consistency

- Don't distort public investment to less productive ends
- Difficulties:
  - Wide variation in public-sector discount rates reflects many institutional factors
  - Some evidence on social rate of time preference suggests it is much lower than public-sector discount rates
  - Quite possible to immiserate future generations

So is climate change a special case?

- There seem to be two alternative resolutions to this particular (narrow) debate, both of which afford climate change special status
  1. Go back to first principles in setting the values of ethical parameters
  2. Set them consistent with other policies (i.e. higher discounting), but add a side constraint to ensure sustainability
- Question: does it make any difference? (I hope to be able to tell you soon)

Conclusion

Conclusion: economics and ethics cut both ways

- Careful, explicit examination of ethical issues can guide the formulation of relevant economic questions
- Economic analysis can provide guidance on ethical issues by clarifying the consequences of particular ethical viewpoints

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London School of Economics
s.dietz@lse.ac.uk

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