Sustainable development from theory to practice
What role for development agencies?

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Four questions

- Why has action been so slow in the face of a growing and widely shared concern about the stakes?
- Have economists been helpful?
- What can development finance institutions do?
- How can economists better help?
Why has action been so slow?

- Complexity of sustainable development
  - Definition not operational
  - How to think about taking decisions for the posterity (Summers and Zeckhauser, 2008)?
  - Decision under uncertainty
  - Biases and parochial interests
  - A collective action problem
A “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

(Brundtland commission, 1987).

- Needs of the present?
- Needs of the future?
- Without compromising the ability of future generations?
- What future generations?
Two broad reasons why future should be discounted

- Pure time preference
- We are getting richer, so that a given increase in income provides less additional utility over time

How to estimate these parameters

- Individual vs. Social
- Results very sensitive to actual figures

Should discounting be exponential? (Or should we consider that, after a given date in the future, all subsequent events will be discounted at a constant rate, whatever the date of occurrence?)
Uncertainty

- **The Comet exemple** (Summers and Zeckhauser, 2008)
  - Two Comets close by, can choose to destroy one with a one-shot special weapon
  - Comet A will come back again in the vicinity in 100 years, with a probability 1/100 of hitting the earth and destroying life
  - Comet B will come back in 400 years, with a 1/10 probability of destroying the earth
- Discounting method: choose to destroy A, for any reasonable discount rate
- Intuitively, decision should be to destroy B.
- Problem is the combination of uncertainty with exponential discounting
Uncertainty and irreversibility
The theory of option value

- Under uncertainty, waiting may have a value because as time goes, new knowledge can better inform decisions.
- With the possibility of irreversible events, the « option value » approach gets broader. Acting now can also have value if it allows to keep options open for the future by avoiding an irreversible event.
- Climate change
- How does scientific and/or technical progress work?
Biases and parochial interests

- Size: should an event be discounted differently if it affects a smaller number of people?
- Discount rates may vary across populations of different sizes
- How to address relative scarcity? Should we care more about protecting the scarce and threatened or about protecting the current stock?
- Human mind limited: sequential (rather than universal) action more typical. At each point in time, imperfect information results in focusing on a few issues deemed more important than others. This choice is considerably biased by (1) lack of information (2) lobbying (3) Exposure to natural catastrophes (4) Herd effects
- Yet, no single truth; action needed in a number of sectors. How to think about trade-offs? The setting of priorities?
A collective action problem

- Results of one’s own action depend on those of others: prisoner’s dilemma situation
- This problem has local, national, regional and global dimensions.
Have economists been helpful?

- Lack of recognition about the role of « natural capital » in neo-classical growth models
- Gaps in national accounting
- Problems with rational choice theory
  - It does not solve the many dilemmas of collective rationality: questions of choice, time dimension and uncertainty are among the most difficult to address
  - Two major issues in decision making
    - Sunk cost fallacies
    - Causality or correlation?
  - The approach as currently developed is largely flawed
What can development finance institutions do?

- Sustainable development issues have substantially altered the way one thinks about development
- Documenting win-win situations
- Catalyzing longer-term policy making (use of subsidies, concessional lending…)
- Act as drivers of local and global (North/South) collective action
How can economists better help?

- Environmental accounting
- Expand national accounting
- Evaluations
- Join forces with others: the « 4 D’s » of Summers and Zeckhauser (2008)
  - Discounting: how to discount the future?
  - Disaster: knowledge about possible future events
  - Distinction: how to choose between alternative approaches and instruments?
  - Decision analysis
- Economists are useful for (1) and (4); Scientists for (2); Psychologists and philosophers for (1) and (3). For decision to not be partial and incomplete, all 4 dimensions must be taken into account.