Can the world sustain a population of more than 4 billion people? Some thoughts

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An analogy to global warming

• Global warming threatens our existence
  • We have a clear goal: no more than 1.5C further increases in temperature
  • We know how to achieve that
  • It will “cost us” but it is well worthwhile

• Climate change already has serious, negative effects
  • While we seek to limit further damage, we need to contend with current damage
Today’s question

• Is this really a policy question? How do we get to 4 billion?

• Not like the issue of climate change

  • We are entering a period of long-term population decline

  • But decline will be slow; current UN projections imply decline before 2100

  • Are there policies (that anyone would defend) that will bring us to 4 billion people in any near future?

• It is more important to figure out how to deal with this population
What kinds of policies to reduce population?

• The debate between “family planning programs really matter” and “no, they do not”

• No point in trying to argue this today, but:
  • High fertility today is increasingly restricted to a small number of countries
  • Much of the world’s population today has NRR<1
  • Continued population growth largely reflects momentum, not NRR

• What kind of policies will get us to 4 billion?
Processing uncertainty

• We don’t want to over-sell claims because it ends up making it harder to push serious policy proposals

• Yet uncertainty’s effects are not always symmetric:
  • If we do “too much” to fight climate change, will end up spending more to have a nicer planet than we feared
  • There are costs to this, but costs are not extinction

• If we are wrong about the 4 billion figure, then the consequence may be worse
1. Uncertainty about future economic growth

- Will economic growth continue?

- If the planet cannot sustain more than 4 billion people, that might itself slow down rates of economic growth and thus limit the burden of humans.

- The distribution of world income may matter more than overall growth, in which case what matters is economic growth in poorer countries.
2. Uncertainty about future technology

• As an economic historian I find assumptions about future technological change difficult to credit. This cuts two ways.
  • Some economists like to assume “the market” will solve every problem.
    • The market cannot even find my missing socks
    • There are many “problems” that have not yet been “solved,” even though solving them would make someone very rich
  • Others ignore the enormous technological change of the past 200+ years.
    • Some of this technology has made it possible to feed much larger populations
    • Some of this populations has dramatically reduced death rates and thus helped raise population sizes
    • To me, best to view future technological change as source of deep uncertainty
3. Uncertainty about future “consumption baskets”

• We are aware, today, that different societies have different impacts on the planet per-capita
  • Some eat little meat, do not fly a lot, use public transport
  • And then there is the US

• Less awareness that these patterns change over time. And seem to have a bias
  • In wealthy countries, higher incomes reflect increasing demand for personal services
  • This seems to be fundamental
    • Few people want a 3rd car
    • Instead, they want someone else to perform a task for them

• What does this mean for the planet?
  • We might find that future growth is not so bad for the planet as we assume