The Economic Impact of Climate Change (Tol, 2018)

- Total economic impact is expected to be positive up to 1 degree Celsius warming (already guaranteed), but negative beyond that.

  → Carbon should be taxed (or traded).
- Average effects should be modest
  - Global temp increase of 2.5 degrees Celsius will cost an average person 1.3 percent annual income.
- Effects of CC on social costs of carbon dependent on assumptions about economic growth
- Short-run impacts (on economic growth) may be positive, but long-run impacts likely to be negative
  - But there could be ongoing effects on technological change and growth, which could make impact much worse
- Uneven effects/distribution
  - Impact far worse for those in hot and/or poor countries, especially if climate change yields a decline in economic growth rates

- Estimates of marginal impact of climate change -- the social cost of carbon -- vary widely.
  - Don't know what appropriate carbon tax/price should be.
  - Social costs of carbon is extremely sensitive to the discount rate (of time)
  - But…estimates <u>are</u> above <u>current</u> carbon prices.
- Preferred policy (among economists) is a Pigouvian tax
- BUT estimates of optimal tax vary widely