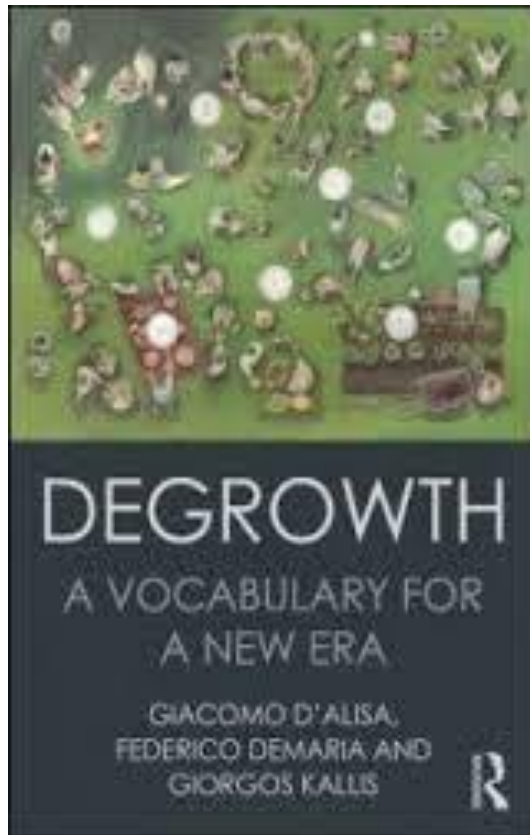


In Defense of Degrowth

Giorgos Kallis

ICREA professor,
ICTA, Autonomous University of Barcelona

What is 'degrowth'?



vocabulary.degrowth.org

- A ruthless critique of the dogma of economic growth.
- A search for alternatives to growth-based development.
- A hypothesis that a downscaling of the economy is inevitable, desirable, and under conditions socially sustainable.

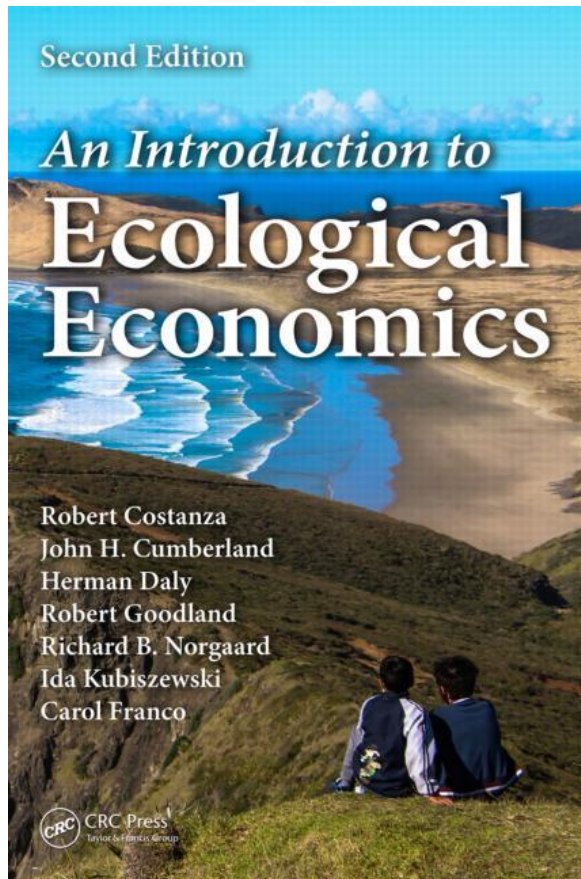
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 2. Growth is incompatible with greening.
 3. Advantages of degrowth for climate change mitigation.
 4. Defence against criticisms.
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5. (A few words on a-growth)
 6. (A few words on post-environmentalism, or so-called 'eco-modernism')

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Ecological Economics

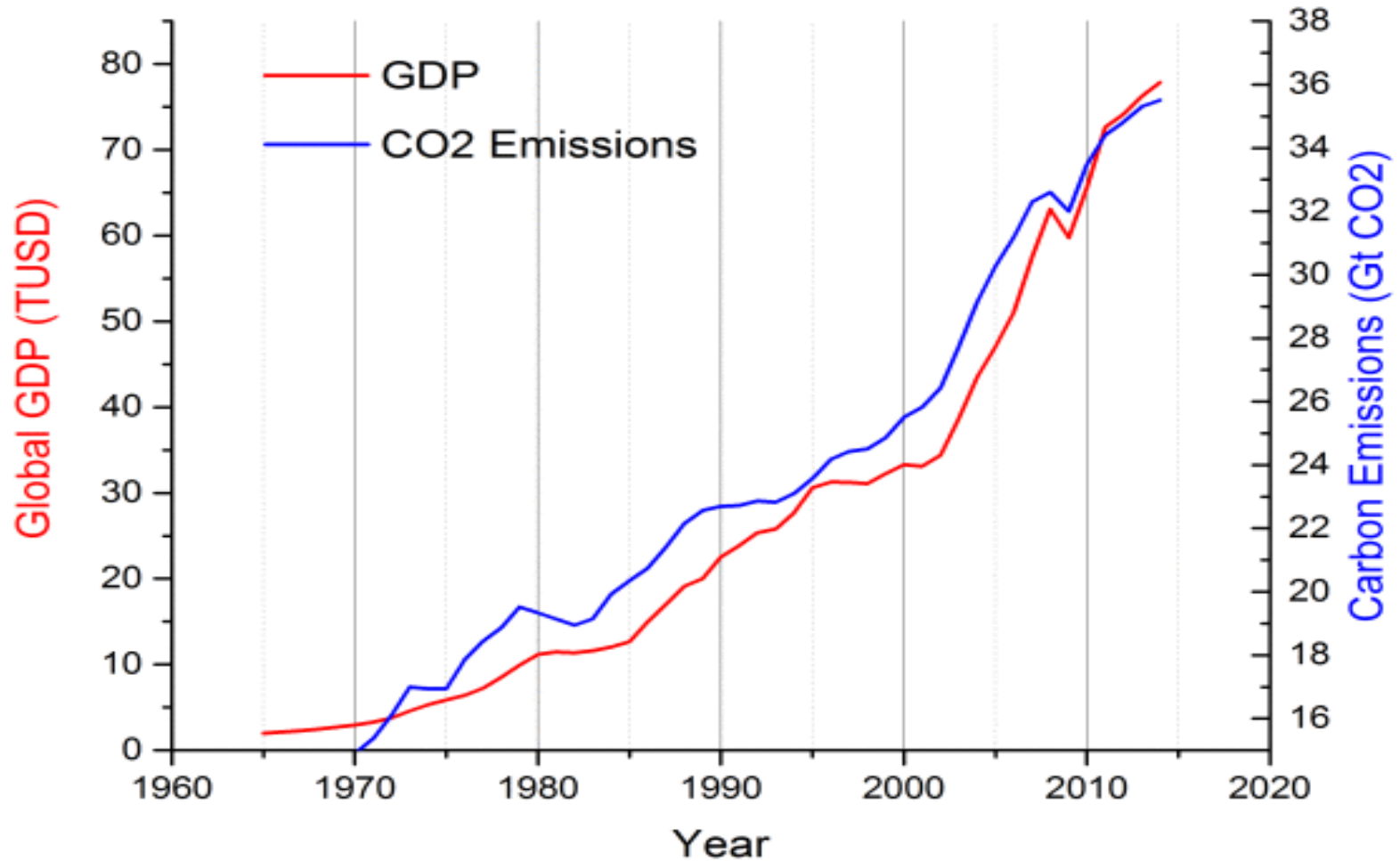


- Economic process is a process of extracting, processing and transforming energy as resources into energy embodied in products and services.
- ‘Services’ embody energy and materials.
- Growth is the result of surpluses of useful work & energy invested to produce more useful work => Growth depends on net energy.

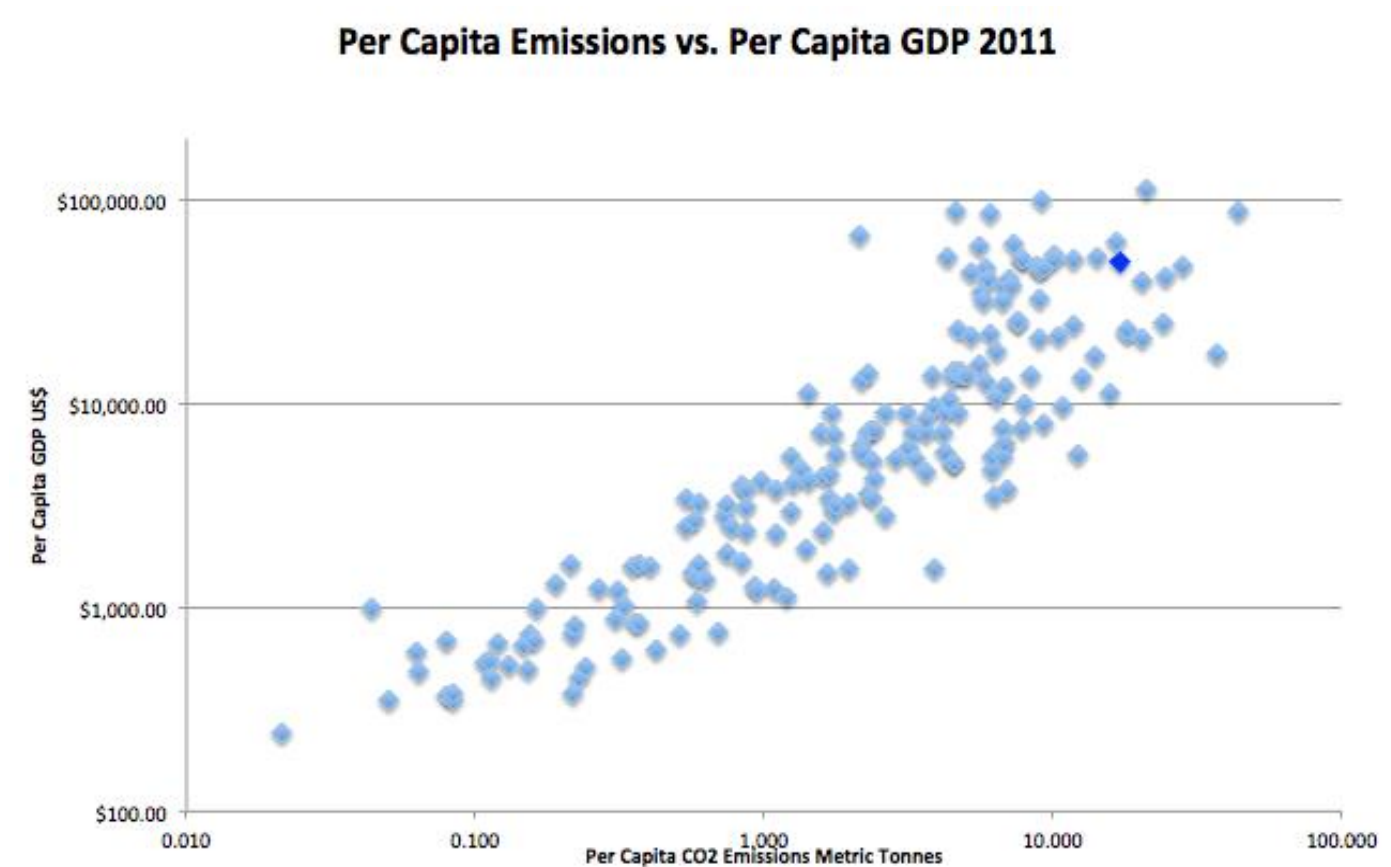
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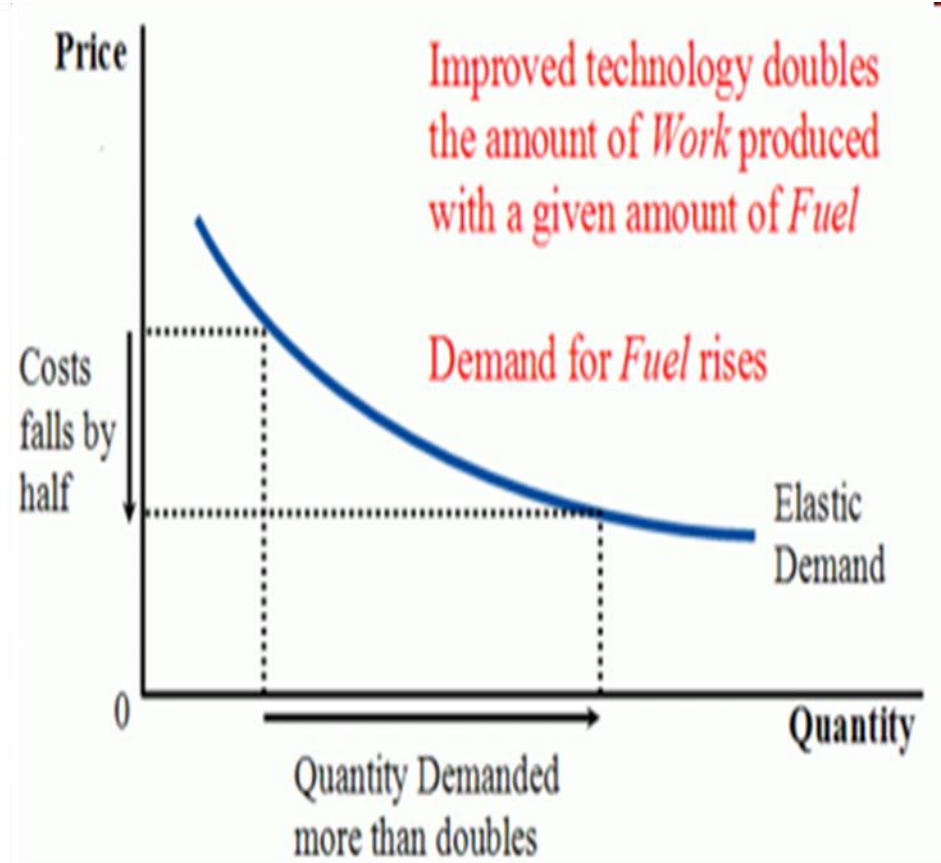
Global environmental impacts are directly related to the scale of the economy



1% growth leads to 0.6% increase in carbon emissions

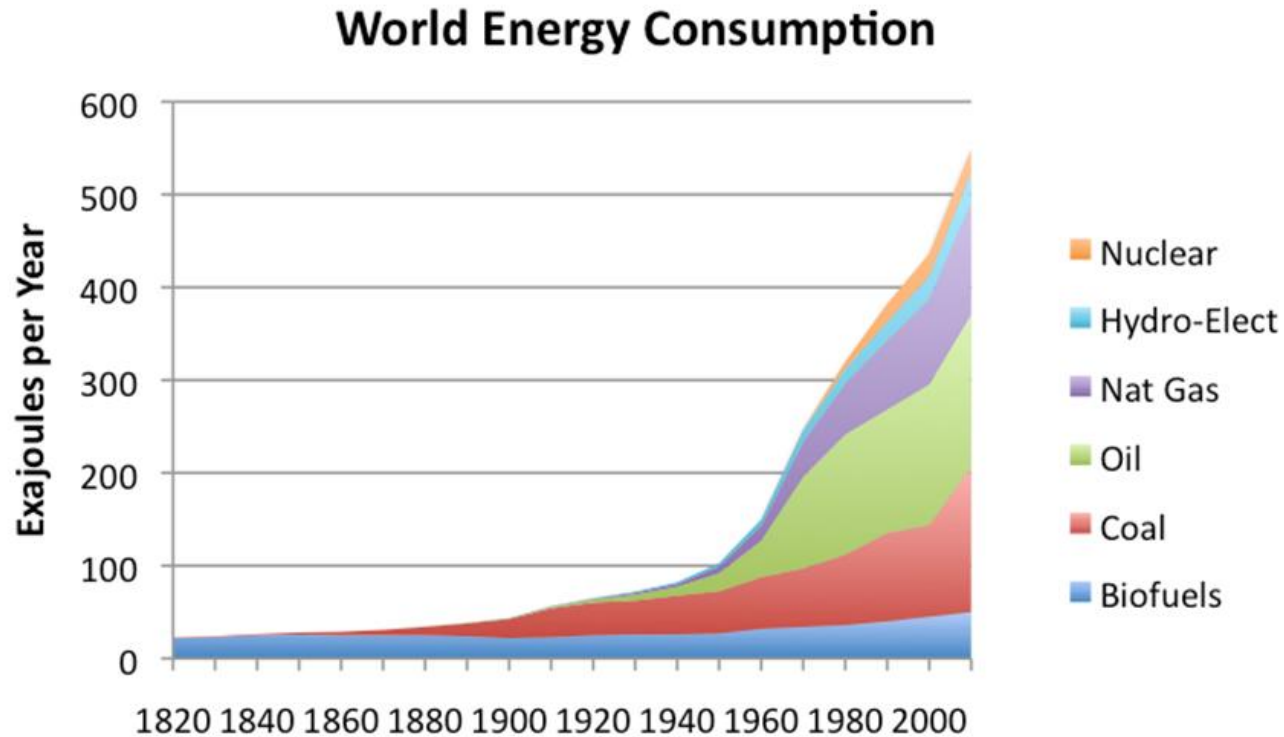


Efficiency alone does not do the trick

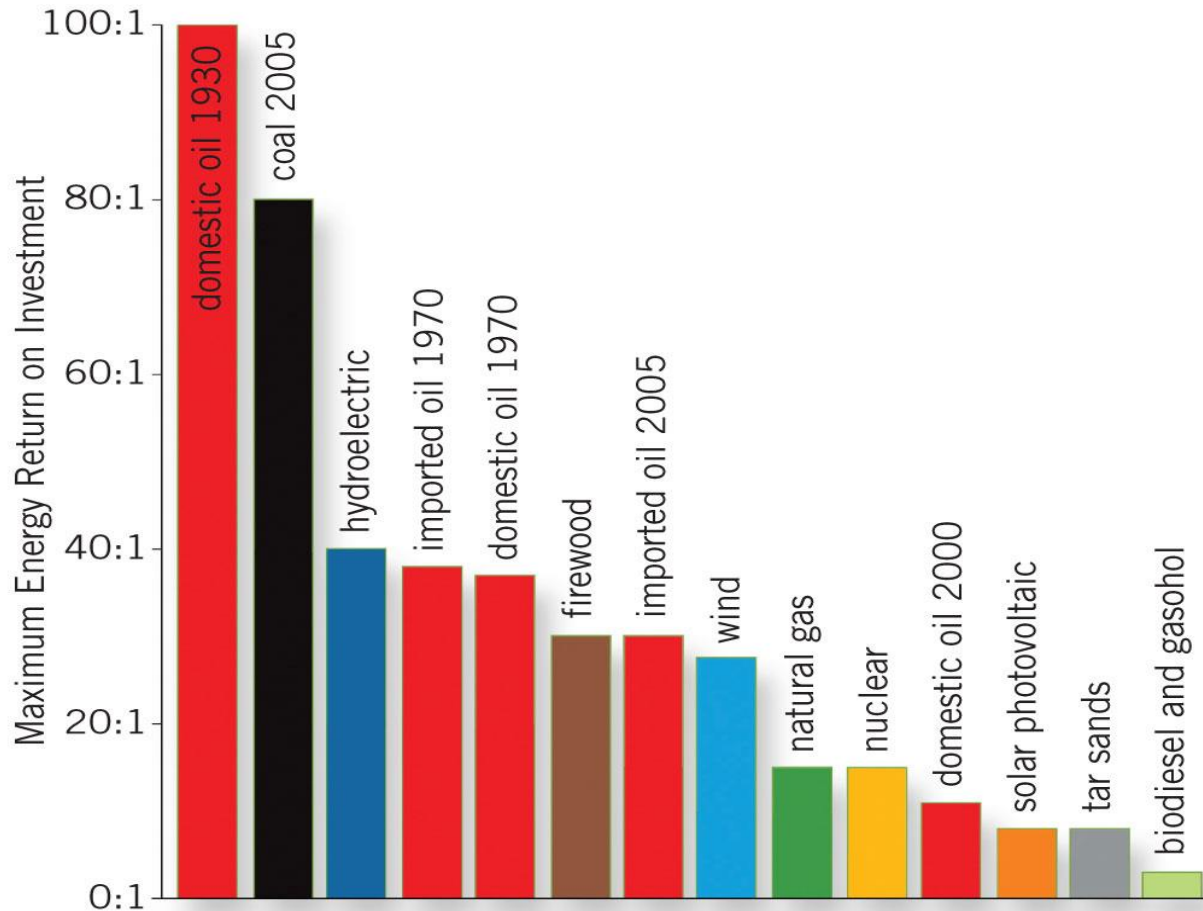


Jevons' 'Paradox'

We are not substituting, but adding new forms of energy on top of existing ones.

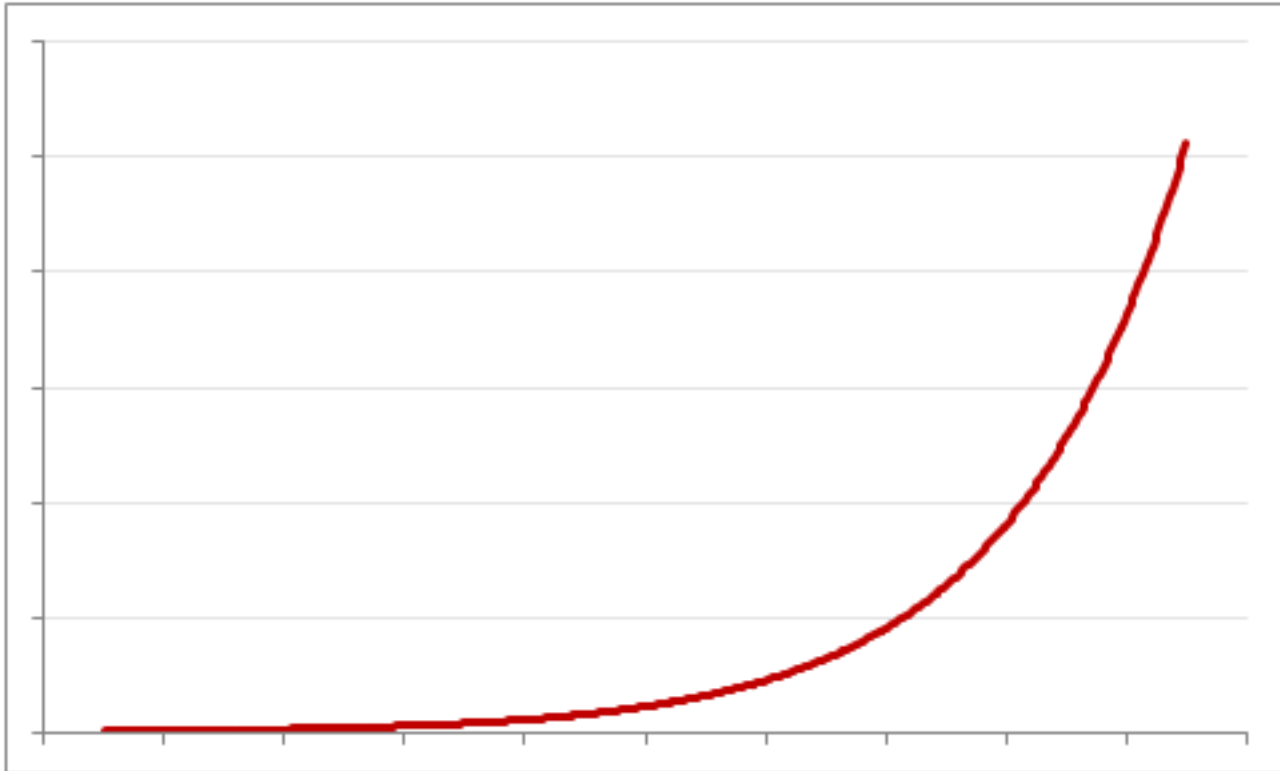


A renewable economy is likely to be a smaller economy



Source: Hall, C.A. and Day, J.W., 2009. Revisiting the Limits to Growth After Peak Oil
American Scientist, 97, pp.230-237.

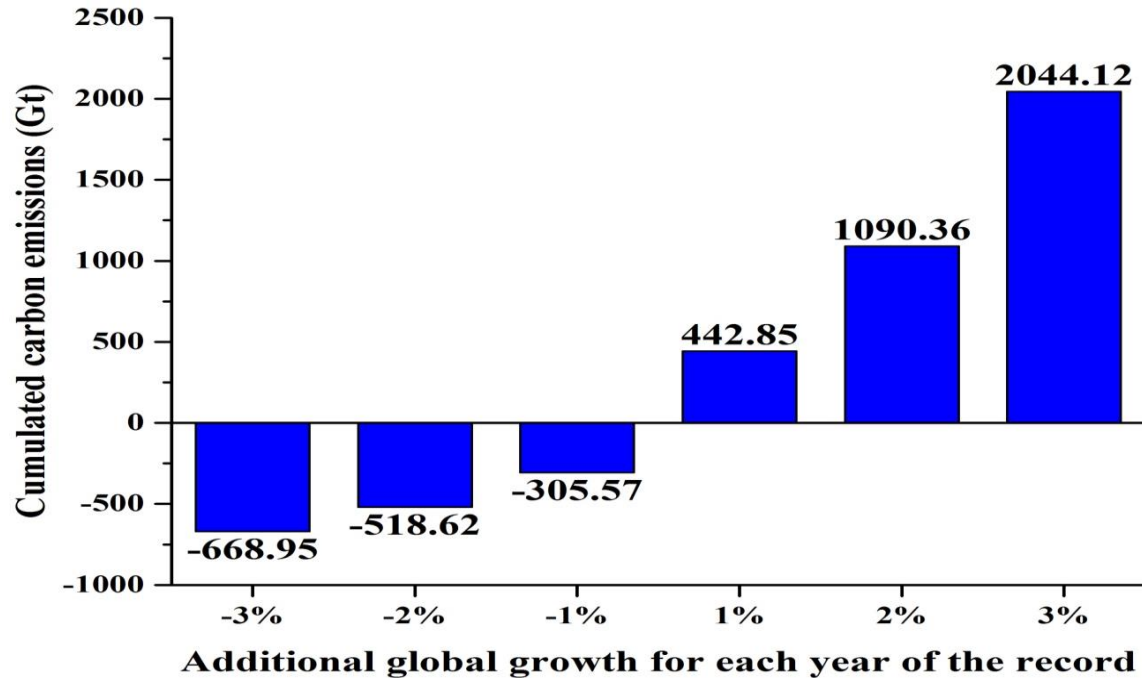
Compound growth is logically impossible



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It is easier to reduce carbon emissions with less growth



Remaining global Carbon Budget for 2oC =
590–1,240 GtCO₂

Need 6 to 7 stabilization wedges of **90 GtCO₂** each

Degrowth vs. Renewables & CC Policy

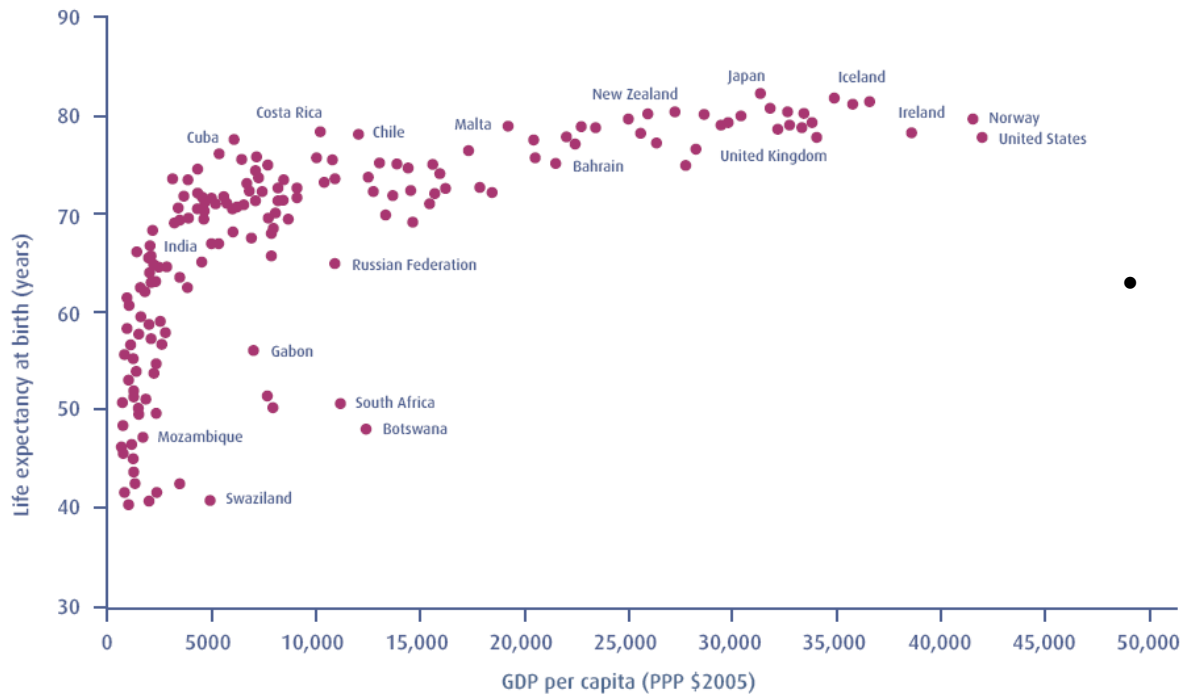
- No rebounds or leakages.
- No off-shoring.
- No burning of extra oil to fuel the transition.
- Reduction of *all* resource demands and environmental damages or risks.
- Reduction of *all* types of emissions.
- Compatible with a low EROI renewable energy economy.

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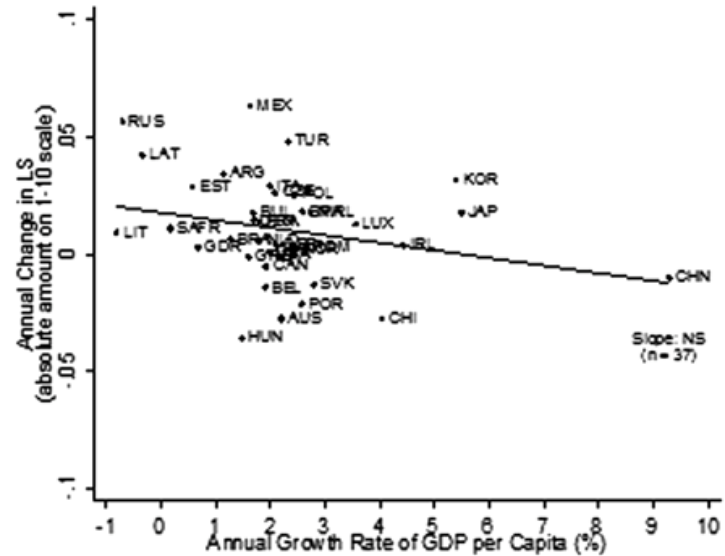
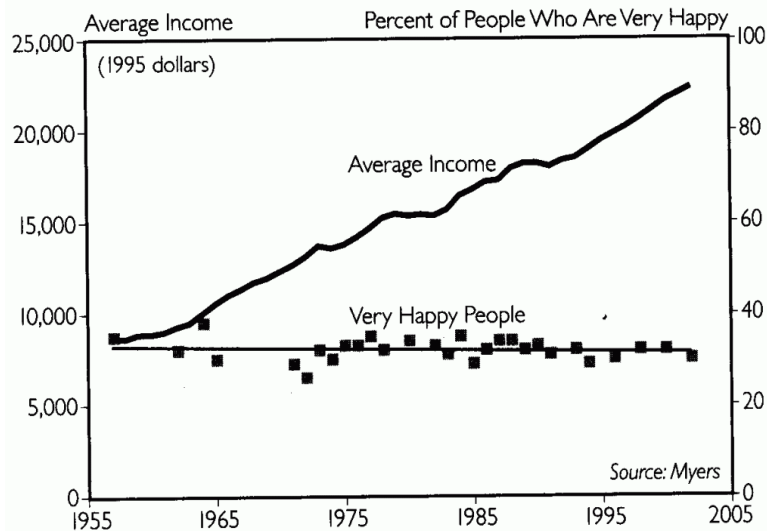
“Growth is necessary for low-income countries”

Figure 8 Life expectancy at birth vs average annual income¹⁶

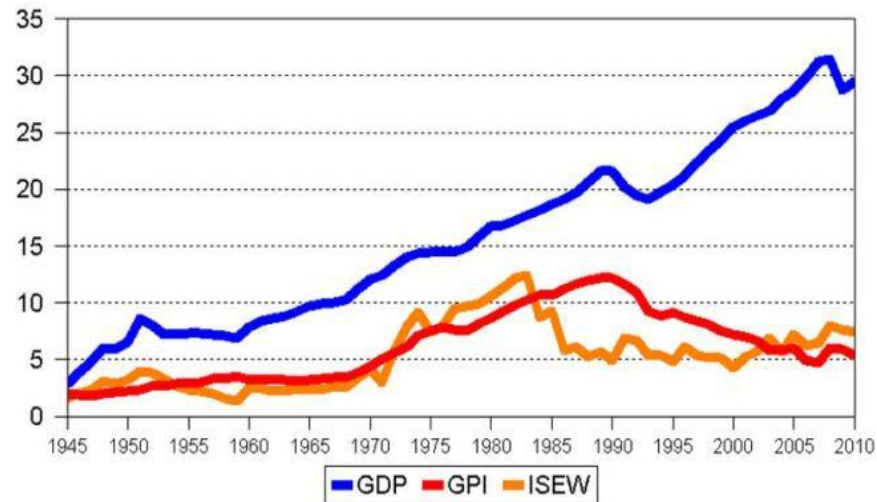


- Mid-income countries have high levels of wellbeing and more sustainable emissions and footprints.
- Growth in low-income countries is no justification for growth in high-income countries.

“Growth improves wellbeing” (subjective)



“Growth improves wellbeing” (objective)

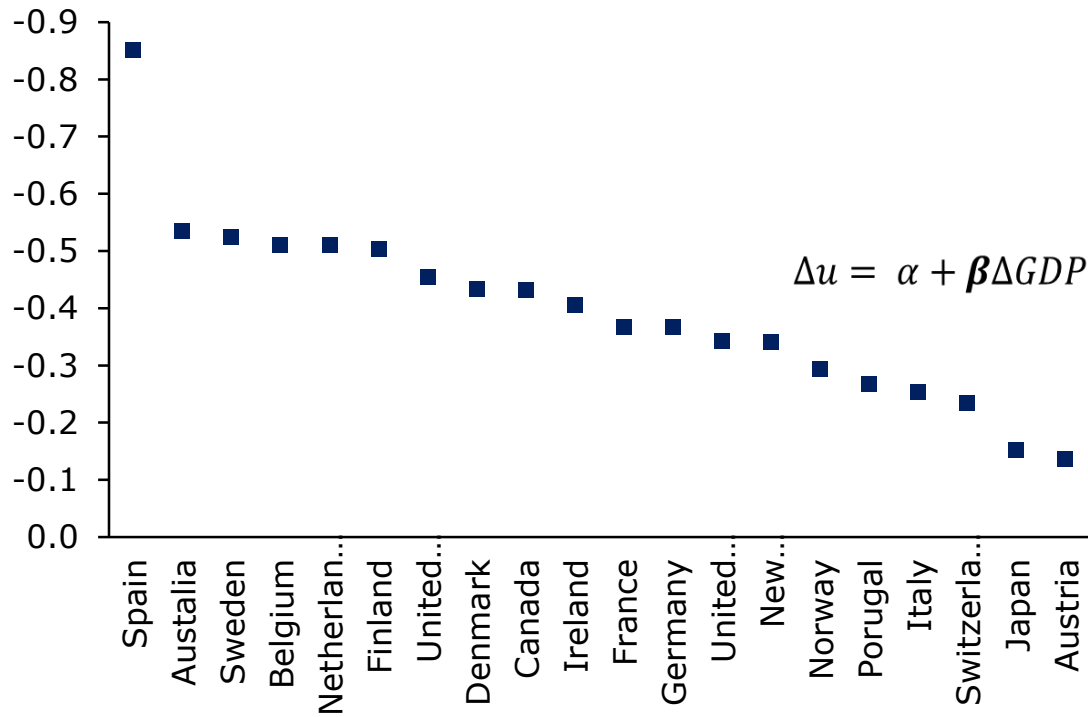


“Degrowth will back-fire”

(regression to dirty fuels, less green investments, stagnant economy & technology)

- Dirty investments will decline too. (Negative growth **decreases** carbon emissions, material use, and ecological footprint, full-stop.)
- Technology has progressed, economy has grown several times, but global carbon intensity is almost the same.
- Existing technologies can be deployed and appropriate technologies developed at a fraction of the cost, with open source property rights and elimination of the profit motive.

“Degrowth will be destabilizing”



It may well be in economies that are designed to grow or collapse.

But it doesn't *have to*.

“Degrowth is politically impossible”

1. A scientific diagnosis should not adjust to the politically possible.
2. Nothing is a-priori politically impossible.
3. If I am right, the alternative is physically impossible.
4. Scenarios of over 2 oC?

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“Ignore GDP, and do the right thing, no need to aim for degrowth”

1. Do as you may, but we can either have declining R with growing GDP (green growth) or declining R with declining GDP (degrowth).
2. Ignoring it or not, GDP will decline if we seriously implement sustainability policies that reduce energy and resource use.
3. GDP cannot be ignored because it matters. If we simply ‘ignore’, we won't be prepared to adapt and secure social sustainability.
4. GDP and the pursuit of growth won't go away by ignoring them.

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The dangerous illusions of post-environmentalism



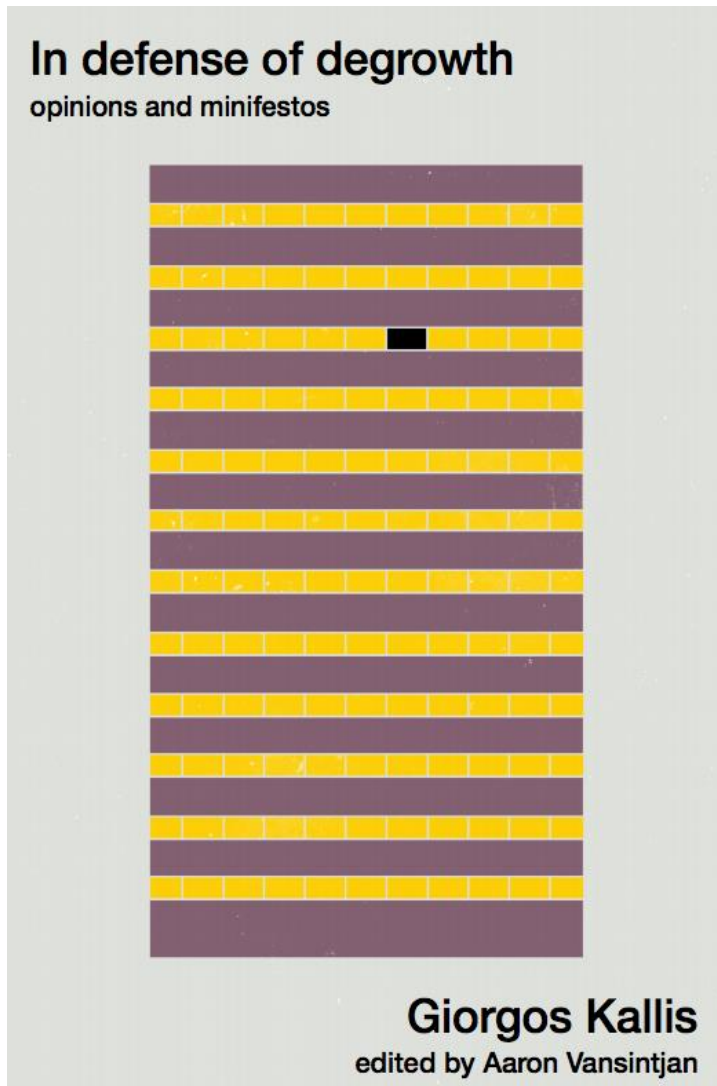
- Post-modern play of words turns real.
- The post-materialism thesis is wrong.
- The EKC hypothesis has been refuted.
- Efficiency (Intensity) is not the same as scale.
- Substitution has never done the trick.
- **Nuclear power adds more risks to an already risky future.**



“I am not proposing a return to the Stone Age. My intent is not reactionary, nor even conservative, but simply subversive. It seems that the utopian imagination is trapped, like capitalism and industrialism and the human population, in a one-way future consisting only of growth. All I’m trying to do is figure out how to put a pig on the tracks.”

Ursula K. Le Guin

Thank you!



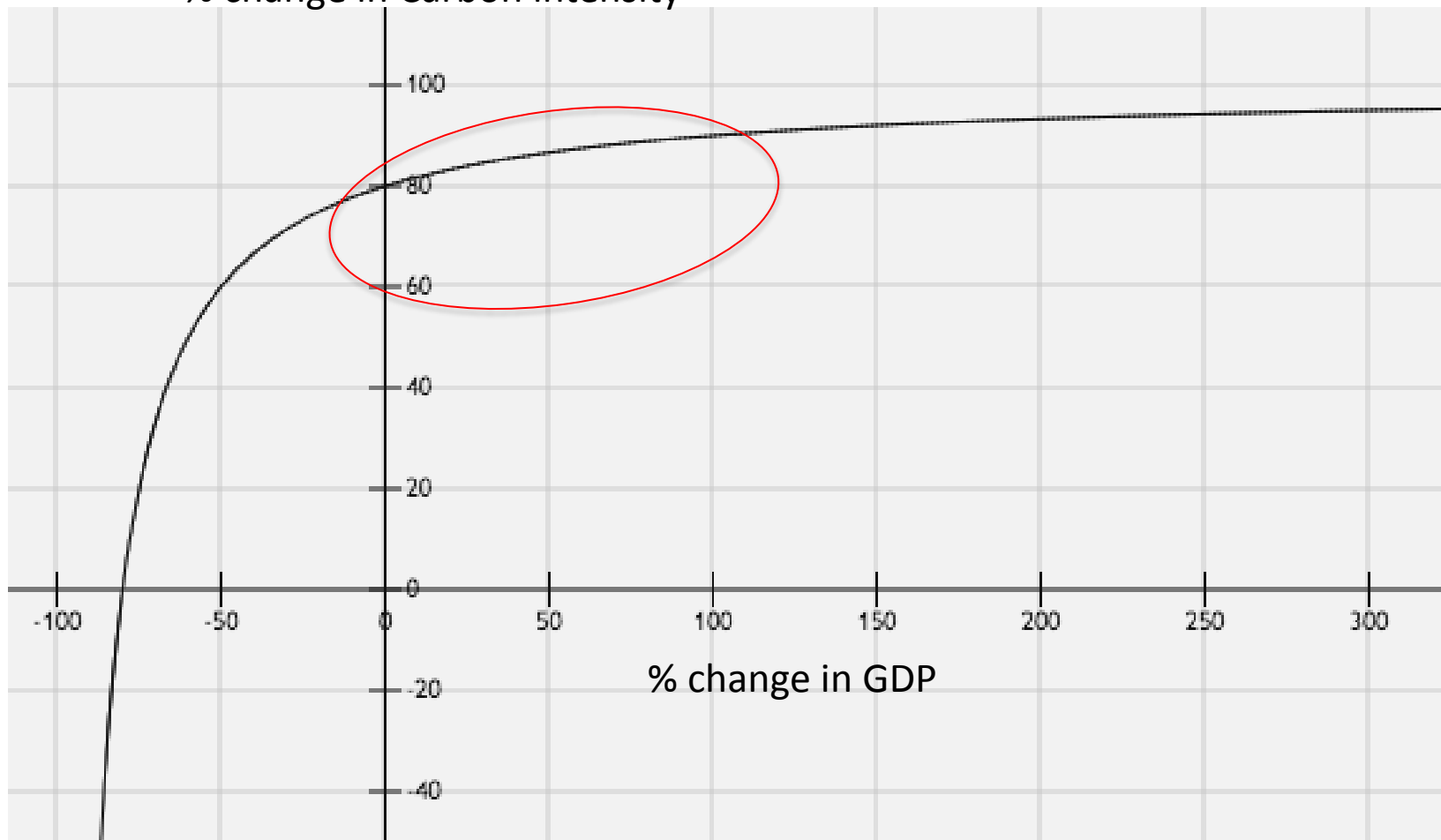
Soon free to download at
indefenseofdegrowth.com

The slides of the talk will be available at
my twitter page:

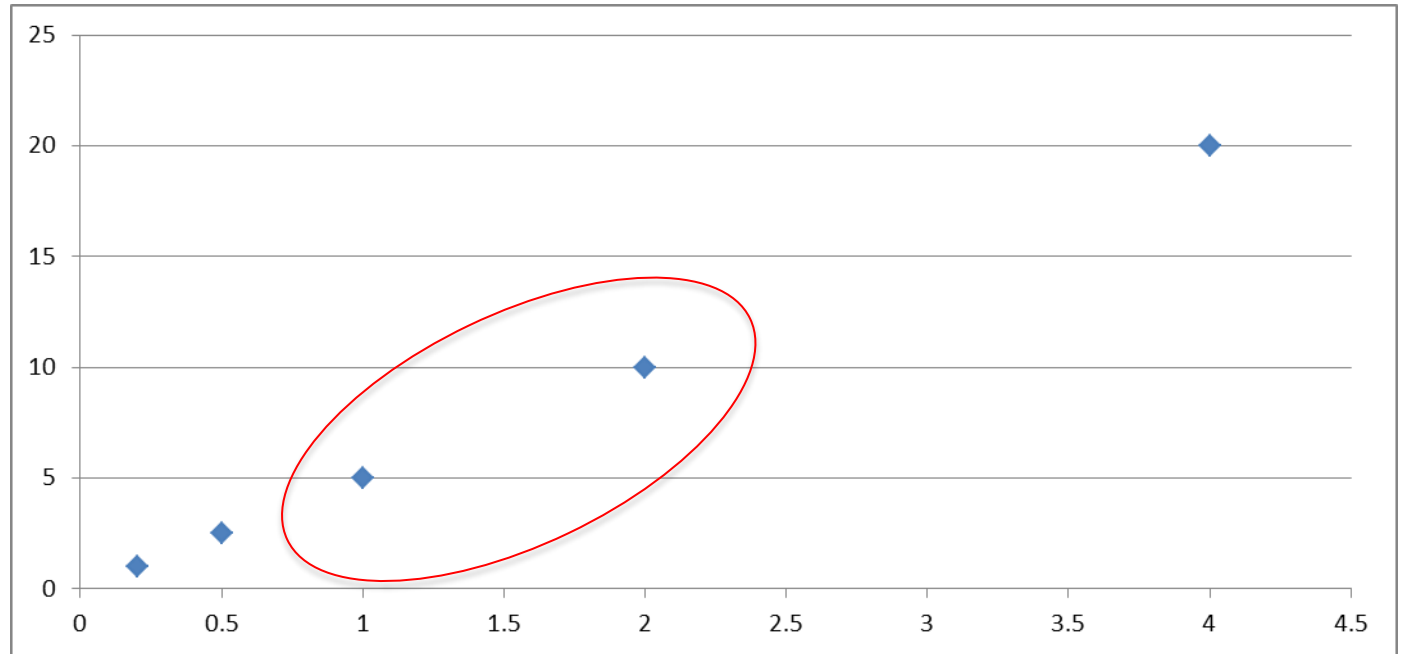
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% change in Carbon intensity



x smaller carbon
intensity



x bigger the economy

