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Macro Roundup Artcile

Headline: Sustainability or Bust: The Sheer Impossibility of Eternal Compound Growth

Article Link: https://www.gmo.com/americas/research-library/sustainability-or-bust_viewpoints/

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Tweet: Jeremy Grantham argues that resource constraints make “eternal compound growth” impossible, particularly limitations on the ability of the environment to absorb greenhouse gasses. He forecasts declining GDP as labor forces shrink.

Summary: Compound growth and long timescales do not go together. How about physics? Using energy of any kind means you have to diffuse the waste heat all energy produces, the “heat island” effect, if you will. This effect is currently dwarfed by the great effectiveness of carbon dioxide and methane as greenhouse gases – this year will be over 1.5°C above the old pre-industrial level and the warmest year ever – and that greenhouse effect represents 95% of the heating effect of human energy use, and the heat diffusion effect less than 5%. But if humanity were to keep up the last 250 years’ 2.3% compound growth in energy use for just 450 more years, the heat diffusion effect alone – this currently modest 5% – would be enough to boil the oceans! No, eternal growth will not work. The main point of my thesis is that whether measured GDP is slightly negative or positive is not the major issue. Overall, measured GDP is likely to shift over the rest of this century from growing, to flat, to slowly declining as labor forces shrink. Related: Electravision and Not That 70's Show and Global Clean Energy Spending Surges to $1.8 Trillion. It’s Not Enough

Primary Topic: Business Cycle

Topics: Business Cycle, China, Energy, GDP, Growth, Op-Ed/Blog Post

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