

How Will the Perpetual Economic Growth Delusion End?

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Economic growth may one day turn out to be a curse rather than a good, and under no conditions can it either lead into freedom or constitute a proof for its existence. Hannah Arendt

Globalization presumes sustained economic growth. Otherwise the process loses its economic benefits and political support. Paul. A. Samuelson

This is my long-run forecast in brief. The material conditions of life will continue to get better for most people, in most countries, most of the time, indefinitely. Within a century or two, all nations and most of humanity will be at or above today's Western living standards. Julian Simon

We have in our hands now – actually in our libraries – the technology to feed, clothe, and supply energy to an ever-growing population for the next 7 billion years. Julian Simon

The numbers are indicative of a continued, very severe recession. There is nothing here to show that the economy and the market are pulling out of the grip of recession. Stuart G. Hoffman

Overview

For most of the 2 million years the genus *Homo* has inhabited the planet, the dominant view has been that resources are limited. *Homo sapiens* (humans) found fossil fuel and acquired more energy per capita than any species that ever existed. However, setbacks existed even in those happy times. During the Great Depression, spending beyond a person's income was unthinkable. The assortment of quotes above is included to illustrate how wildly optimistic some economists have been about natural resource depletion. The 2008/2009 global financial meltdown, which now appears likely to continue for some time, has had a sobering effect on a great many people concerning resources, but one wonders how long the new perspective will last.

Garrett Hardin

Garrett Hardin spent his entire professional career publishing on the resource problems that still plague the world today (Cairns 2005). Since the problems have worsened since Hardin died in 2003, his prophetic thoughts are just as valuable today as when they were published. In *Living Within Limits*, Hardin (1993) both frames and integrates discussions of ethics, human rights, and government. Prospective readers of Hardin's publications should be warned that he is soft hearted toward future generations, but hard hearted toward those presently alive who are permitting these unsustainable practices to worsen.

Stochastic Events Happen

Most people in the developed world dislike admitting how random the world they live in is. The economy is a human artifact. Nature is not and is less well understood. The economy is homocentric – nature is ecocentric. An extreme viewpoint is that the human economy is apart from natural systems and merely uses them as raw materials (i.e., resources). Arguably, this view is a major factor in the hierarchy in which the economy is given the highest priority and the environment (i.e., nature) is listed around 10 or 12. This situation may be the basis for three assumptions that appear far weaker in the 21st century than they did in the 20th century.

Assumption #1 — Resources are not limiting – when a resource is depleted, a substitute can be readily found. Resources, in this assumption, are infinitely substitutable. This extreme view was expressed most forcefully by Simon (1996).

One of the basic principles of ecology is that the carrying capacity of a biological species in an environment is the population size that the environment can sustain in the long term, given the food, habitat, water, and other necessities available in the environment. This definition assumes that the population will not degrade the habitat because doing so would reduce the carrying capacity. The concept of limiting factors states that the success of an organism is limited by the presence or absence of one or more of the factors necessary for survival. Usually, one factor is in scarce supply and is, therefore, limiting. Both carrying capacity and limiting factors are based on a long-term perspective. Assuming that these concepts apply to all species except *Homo sapiens* is foolish.

Assumption #2 — Exponential economic growth involving natural resources can continue indefinitely on a finite planet.

Exponential human population growth places even more strain on the perpetual economic growth concept, even if the assumption is made that new arrivals will accept the quality of life those presently alive enjoy. Most people assume that their quality of life should improve, especially those in third-world countries. In 1950, about 2.5 billion people inhabited the planet. Another 2 billion mouths to feed (over the present 7 billion) are estimated to be added by 2050. Where will all the additional resources, including space, come from?

Assumption #3 — The biospheric life support system (James Lovelock uses the term *Gaia* for the same system) will continue to maintain conditions favorable to *Homo sapiens* regardless of increasing anthropogenic stress.

The biospheric life support system has maintained conditions favorable to the genus *Homo* for approximately 2 million years and for the species *Homo sapiens* for 160,000-200,000 years. Conditions on Earth have not always favored *H. sapiens* or many of the millions of other species with which humans share the planet. Humankind should be nurturing the biospheric life support system rather than placing it at risk. Every practice that threatens biodiversity also threatens the biospheric life support system because its components are species. People assume the biospheric life support system will continue its functions regardless of how humans treat it. Hopefully, the catastrophes resulting from ignoring the health and well being of the present biospheric life support system will awaken humankind to the risks and hazards of unsustainable practices in time to preserve the health and integrity of the present system. One thing is certain – humankind cannot reliably predict the conditions that will be produced by the replacement life support system.

Acknowledgments

I am indebted to Darla Donald for transcribing the handwritten draft of this commentary and for editorial assistance. Paul Ehrlich, Paula Kullberg, and Peter Leigh called useful references to my attention.

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