Redefining wealth, redefining progress

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From birth to puberty a hamster doubles its weight each week. If, then, instead of levelling-off in maturity as animals do, the hamster continued to grow at the same rate, on its first birthday we would be facing a nine-billion tonne hamster. If it kept eating at the same ratio of food to body weight, by then its daily intake would be greater than the total, annual amount of maize produced worldwide.

There is a reason that in nature things do not grow indefinitely.

Yet the entire canon of mainstream contemporary economics seems to believe that a simplistic model of economics exists independently of the laws of biology, chemistry and physics. It assumes, without exception, that infinite economic growth on a finite planet is both desirable and possible.

In economics, "growth", or the lack of it, describes the trajectory of "Gross Domestic Product" and "Gross National Product", two slightly different measures of national income (they differ, basically, only in that one includes earnings from overseas assets). An economy is said to be growing if the financial value of all the exchanges of goods and services within it goes up. The absence of growth gets described, pejoratively, as recession. Prolonged recessions are called depressions.

Yet it is not that simple. An economy may grow, for example, because money is being spent on clearing up after disasters or pollution incidents, or to control rising crime or widespread disease. You may also have "jobless growth" in which the headline figure for GDP rises but new employment is not generated, or environmentally destructive growth in which a kind of false monetary value is created by liquidating irreplaceable natural assets on which livelihoods depend.

The fact that an economy is growing tells you nothing about the "quality" of economic activity that is happening within it. For example, research by the "centre for well-being" [1] at nef (the new economics foundation) shows that the link between rising GDP and higher life satisfaction in developed nations broke down decades ago.

Research [2] by nef also highlighted a flaw at the heart of the general economic strategy that relies upon global economic growth to reduce poverty. It demonstrated that the distribution of costs and benefits from economic growth is highly unbalanced; the share of benefits reaching those on the lowest incomes is shrinking. In this system,

paradoxically, in order to generate ever smaller benefits for the poorest, those who are already rich and "over-consuming" are required to consume ever more.

For every doubling in the global economy, as it is currently measured, we use the equivalent in resources of all of the previous doublings combined. For modest growth rates of 3% each year, common to developed economies, the doubling period is around 23 years. For higher growth rates of 10%, more common to developing economies, the doubling period is approximately seven years.

In a unique study published in the science journal Nature [3] in September 2009, a group of 29 leading international scientists identified nine processes in the biosphere for which they considered it necessary to define "planetary boundaries". Of the nine boundaries, three had already been transgressed: climate change, interference in the nitrogen cycle and biodiversity loss. Clearly, anyone who thinks the Earth can take another doubling of the global economy is, as economist Kenneth Boulding famously stated, "a madman or an economist".

To illustrate this, and in the context of climate change, nef looked in detail at the relationship between economic growth and the need to avert catastrophic climate change. Based on the leading models for climate change and the global economy's use of fossil fuels, the report [4] comes to a seemingly inescapable and self-explanatory conclusion.

It asks whether global economic growth can be maintained, while keeping a good likelihood of limiting global temperature rise to two degrees Celsius above pre-industrial levels, the target set out in the Copenhagen Accord [5], and widely considered the maximum rise to which humanity can adapt without serious difficulty.

The report shows that none of the scenarios studied, including the most optimistic variations of low-carbon energy and efficiency, could square the circle of endless global economic growth with climate safety. This is in part due to the fact that, over the last decade, carbon intensity (carbon per unit of GDP) has not gone down, it has generally flat-lined and, in some years, even gone up. This is the result of rapid economic growth in developing nations such as India and China, which have fuelled their economic boom with carbon-intensive coal. However, globally, there has also been a lack of investment in low-carbon energy infrastructure such as solar or wind energy.

At the same time, improvement in energy intensity of the economy (energy per unit of GDP) has slowed – this may imply that we may be approaching efficiency limits in both the supply side (such as power stations) and demand side (such as domestic appliances). So, for all the promise of magic bullet technologies such as biofuels, carbon capture and storage and nuclear, and ever improving energy and

resource efficiencies; continual growth drowns out energy and natural resource efficiency gains.

'Well-being economics' offers an alternative to the problems associated with unsustainable economic growth. Underpinning it is the recognition that economic growth was only ever intended as a means to an end, and that by prioritising the "means" – in other words focusing so heavily on economic growth – we have lost track of the "end", of what really matters.

At the heart of well-being economics is the understanding that the "end" in question is a high level of well-being for all, achieved through economic activity that uses environmental resources in a sustainable way. If society's goal is understood to be 'high well-being', and the means of achieving it recognised as sustainable economic activity, we will be better equipped to deal with the biggest challenge that we face in the twenty-first century.

Unending global economic growth is not only impossible, it is also neither desirable nor necessary [5]. If you have any doubts, ask a hamster.

References

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3. 'A safe operating space for humanity' *Nature* **461**, 472-475 (24 September 2009) | doi:10.1038/461472a; Published online 23 September 2009
4. 'Growth isn't Possible http://www.neweconomics.org/
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