

Forty More Years of Slow Growth

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Will the rich world ever return to the high economic growth rates of the pre financial-crisis era? My answer is no, for the reasons given below. That is bad news for those who rely on GDP growth for increased prosperity and profit. But it is good news for those who worry about global resource shortages. A slow-growing world economy will consume less resources and give technology more time to evolve resource-efficient solutions. The human ecological footprint will remain lighter. The planet will fare better.

Over the last forty years world GDP has grown by an average 3.5% per year. This growth can be seen as a combination of growth in a) the labour force and b) labour productivity. Since 1970 both have grown: the population by 1,5 % per year, and productivity by 2 % per year, when measured as annual output per person between 15 and 65 years of age.

I expect both growth rates to decline, especially in the rich world (defined as the members of the OECD). Here the population (and potential labour force) is about to stagnate. After 2015 the potential work force will be declining. And, sadly for many, there is no reason to believe that productivity growth will recover from its long-term downwards trend – from high values of 4 % per year sixty years ago to 1 % per year today. The most productive economy of the world, the US, only managed 0,5 % per year during the 2000s. After the financial crisis US productivity has declined.

The slowing growth - both in population and productivity - is fundamental and simple to explain. Population growth will stop because the increasingly educated and urban women of the rich world will continue to choose jobs over children. In demographic terms: Total fertility (the number of children per woman during her reproductive age) will continue its long-term decline. The old EU-15 is showing the way. Its population is stagnant – average fertility has been below the replacement rate for a generation. Had it not been for immigration, the EU's population would have been declining, in a similar way to Japan's.

Secondly, productivity growth will slow because it is difficult to raise productivity in “mature” economies, where most people work in personal services and social care. It was simpler to raise productivity in agriculture, move the freed labour into manufacturing, and then onwards to services – with the help of capital, new technology, and economies of scale. This raised labour productivity in physical production. Now, having spent twenty years increasing productivity in office work with computers, we are left with most people in personal services, health care, and social care. Activities which are harder – but not impossible to make more efficient: robots in nursing homes are thinkable!

In summary I forecast that the growth rate of the rich world will stay well below the historical average from 1970 of 2,7 % per year. I estimate that the rich world will grow by a meagre 0,2 % per year on average to 2050, because of ever slower growth in population and productivity.

There will be huge regional differences. While the rich world will grow ever slower, China and some large emerging economies will show spectacular growth, partly due to population growth (outside China) and productivity growth (both in China and elsewhere). Their growth task will be simpler while they are still catching up with the West, and able to copy their solutions.

Slow GDP growth does not necessarily mean slow growth in total consumption. What matters is what is left of GDP after necessary investment. My sad conclusion is that this number – consumption per person – will *decline* over the next forty years in the rich world. One reason is slow growth in output per person-year. Another is that rich world workers will have to pay for another hit over the next several decades. We will have to increase the investment rate (the fraction of GDP used to ensure future consumption) in order to counter the oncoming rush of problems of depletion, pollution, and climate change – through additional expenditure on technology and infrastructure. This will reduce the amount available for consumption.

So not only will we live in economies with historically slow GDP growth. The citizens of the rich world will experience decline in their after-tax disposable income because they must pay for additional investments in solutions. To make things worse, if the emerging distributional injustice (especially in the US) is not solved up front, it will further slow future GDP growth because of increasing labour unrest and tension. It is difficult to fine-tune a service economy with an unwilling, uncooperative and dissatisfied work force.

One advantage of decades of slow growth is that it will keep the human ecological footprint lower and stretch available resources, at least until 2052. The downside is that there will be more poverty and possibly run-away climate change in the second half of the 21st century.

The rich world will face slower than normal GDP growth over the next forty years, and should start to act accordingly. Investors should think through what this means for investment returns. And society ought to embark on the long overdue mission to create a society which seeks increased life satisfaction for its citizens rather than higher GDP.

Jorgen Randers is professor at the Norwegian Business School BI and co-author of *The Limits to Growth* in 1972, the Report to the Club of Rome, and its two sequels. His most recent book, published in May 2012, is *2052 - A Global Forecast for the Next Forty Years*, also a report to The Club of Rome.