The world in 2060 – convergence or divergence?

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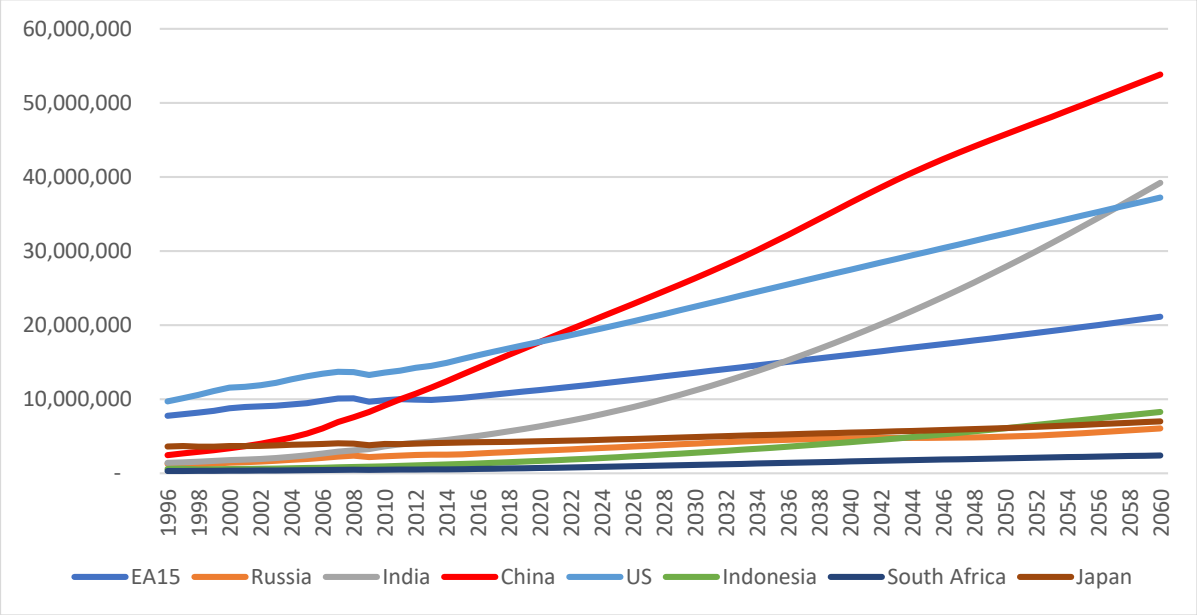
The United States was the largest economy in the world for almost a hundred years, but China should surpass it in the early 2020s (by nominal GDP – China is already the largest world economy by considering the purchasing power of its gross domestic production). By the mid-2050s, India should also surpass the US. Of course, that assumes that China and India will continue to catch up to rich countries.

Figure 1 brings projections for the world economy until 2060, in terms of GDP by country or region. Of course, such a long-term projection is built upon many assumptions. The path of each country or region is predicted on potential output due to expected growth in labor, capital, natural resources utilization, and productivity. As the OECD puts it, the figure represents "trend gross domestic product (GDP), including long-term baseline projections (up to 2060), in real terms. Forecast is based on an assessment of the economic climate in individual countries and the world economy, using a combination of model-based analyses and expert judgement. The indicator is measured in USD at 2010 Purchasing Power Parities."

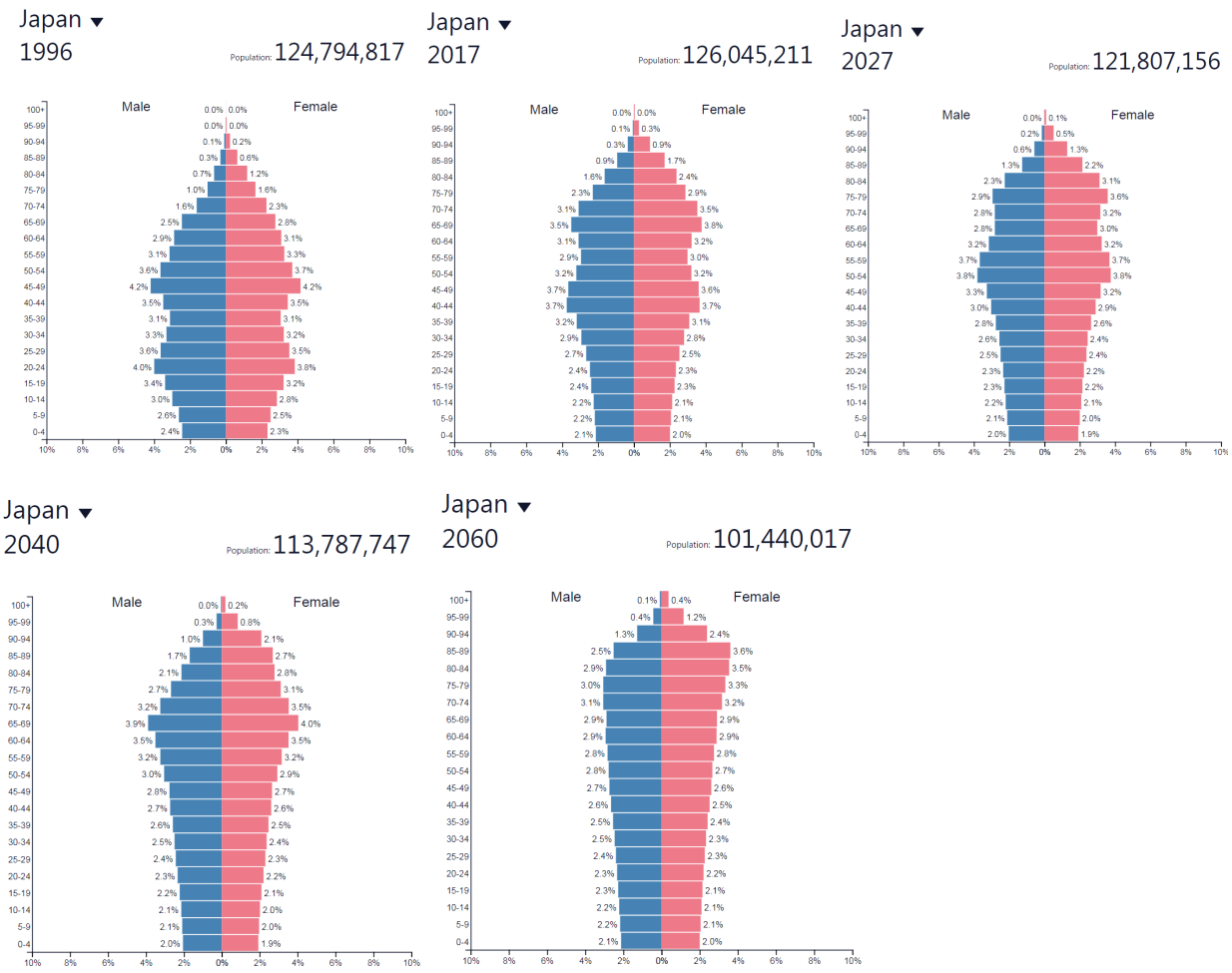
Figure 1 – Actual and forecast Real GDP, 1996-2060, in USD million, at 2010 USD PPP.



Source: OECD (2018), GDP long-term forecast, available at: https://data.oecd.org/gdp/gdp-long-term-forecast.htm

Take Japan, for instance. The country will most likely have a lower population in the future than it does today. That constrains its potential output – if we assume a long-run equilibrium, then actual and potential outputs are the same. A lower population also means that GDP per capita can increase even if real GDP does not.

Figure 2 – Population Pyramids, Japan, from 1996-2060.



Source: Population Pyramid (2018), available at: https://www.populationpyramid.net/japan/2017

The Japanese population most likely peaked at 126 million in 2017 and should contract to a little over 100 million by 2060. Japan is the leading example of the economic issues from an ageing population. The country has been mired in a deflationary spiral since the mid-1990s. Then again, social welfare does not depend on a rising GDP as population declines. The original countries of the European Union (EA15) face a similar path. The region is rich but fertility in Europe tends to be low. In 1996, EA15 countries comprised 22% of the world economy. They should be merely 10% of the global economy by 2060. Yet neither Europe nor Japan should leave the rich countries' club.

Other than demographics, long-term forecasts use assumptions for the rates of convergence. Table 1 details the past, current and expected shares of national economies in the world's GDP. It is important to note that the increase in relative share of a country does not necessarily mean that the average citizen is getting richer. After all, population growth is unequal in these countries. Nevertheless, the astounding convergence of China is clear from the data – the country was 7% of the world's GDP in 1996 and tripled its share in the global economy by 2017. The Chinese economy should reach a quarter of the world's output by 2040 and stay around that level from then on.

Table 1 – Share of national and regional economies of global GDP, 1996-2060.

	EA15	Russia	India	China	USA	Indonesia	South Africa

1996	22%	4%	4%	7%	27%	2%	1%
2017	14%	4%	7%	21%	22%	2%	1%
2027	13%	4%	9%	23%	21%	2%	1%
2040	11%	3%	13%	25%	19%	3%	1%
2060	10%	3%	18%	24%	17%	4%	1%

Source: OECD (2018), GDP long-term forecast, available at: https://data.oecd.org/gdp/gdp-long-term-forecast.htm

But South Africa's share of the world economy did not change from 1996 to 2017, and is not expected to change much in the future. The OECD model clearly pegs South Africa as a country firmly stuck in the middle-income trap. There are many reasons for that, from weak governance to labor market structural issues. The same applies to Russia. In contrast to South Africa and Russia, the OECD model is bullish on India and Indonesia. These two Asian giants have large populations and are nowadays lower middle-income countries. They should reach upper middle-income status around the mid-2030s. Forecasts are that India and Indonesia's share of the world economy should more than double, from 9% in 2017 to 22% in 2060.

Questions for discussion.

1) Go to the OECD website (https://data.oecd.org/gdp/gdp-long-term-forecast.htm) and select the data for a country that is not displayed in Figure 1. Explain the trajectory of the long-term forecast of this country until 2060. Is the country expected to jump to a higher level of development? Which economic or social change could bring a different growth path?
2) Global GDP was a little over USD 73 trillion in 2017. The figure at the OECD's long-term forecast pegged the world's output to almost triple by 2060 - USD 221 trillion. Discuss the major obstacles to such increase in prosperity. Do you think that the world economy can triple in value without adverse consequences to global welfare? Explain your reasoning.
3) Go to populationpyramid.net and select the data for a country other than Japan in Figure 2. Create five figures as in the case of Japan (Figure 2). Social sciences use the term demographic bonus to refer to societies with a high ratio of working-age to non-working-age population. Countries with a demographic bonus should grow faster than ageing countries. For the country you chose, what is the period of demographic bonus? Moreover, what would be the main economic issues brought by changes in demographics in the country you chose?