The Economy in 2065

Predictions and Cautions

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There is a great deal of ruin in a nation.
—Adam Smith, qtd. in John Rae, *Life of Adam Smith*

"Prediction is very difficult," said the late Danish physicist Niels Bohr, "especially if it's about the future." He could have added, "And even more so for the distant future." In economic terms, fifty years is the distant future. For that reason, I do not put a large weight on predictions about what the world economy and the U.S. economy will look like in fifty years.

Having said that, I am willing to make some reasonably confident predictions about the future. I follow these predictions with reasons why I have made them.

Predictions

Here are my predictions:

1. World population, currently at about 7.2 billion, will have reached 10 billion before 2065 and will not be higher in 2065. In other words, the world population will have stopped growing.
2. The world economy, measured in real gross domestic product (GDP), will be at least three times as big as it is now owing mainly to productivity growth, not to population growth.

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3. The largest economy in the world, measured by real GDP, will be that of China, and its economy will be at least double the size of the U.S. economy.
4. U.S. real GDP will be at least twice what it is now owing mainly to productivity growth, not to population growth.
5. The absolute number of people in the world who are in extreme poverty will be less than half of the number today.
6. In the United States, the average number of hours worked per year for people with jobs will be about 10 percent lower than it is now.
7. A weighted average of a broad range of fuel and mineral prices will not be more than 10 percent higher than it is now.
8. Federal government spending in the United States will be between 20 and 25 percent of GDP.
9. Economic freedom in the United States, as measured by the Economic Freedom Index, currently showing that the United States is number 12 out of 152 countries ranked, will show (if the index is still computed in 2065) that the United States is at or slightly below twentieth place.

Now to my reasons.

Reasons

Population

The reason I think the world population will continue to grow but then level off to about 10 billion people is that I believe that per capita income worldwide will grow. Empirically, as people's income grows, they have fewer children. We don't know exactly why that is true. Economists' knee-jerk theory is that higher per capita incomes imply a higher value placed on time, which implies a higher opportunity cost of raising children. Then, according to the law of demand, at a higher price fewer children are "demanded."

It turns out, though, that there are some problems with this straightforward way of explaining the strong empirical relationship between income and fertility. Laying out these problems would take me too far afield from the topic at hand,[1] but whatever the cause of the relationship, it is strong. As Larry Jones, Alice Schoonbroodt, and Michele Tertilt write, "A robust fact about fertility is that it is decreasing in income. This fact has been documented from a time-series point of view, across countries, and across individuals" (2008, 6).

The World Economy

I predict that the world economy in 2065, measured in real GDP, will be at least three times as large as it is today. That larger GDP will be due not mainly

1. Larry Jones, Alice Schoonbroodt, and Michele Tertilt (2008) address the problems with this theory.

to higher population but to higher income per capita. The reason is that economic growth will be relatively high in China and India, where about 40 percent of the world's population lives, and in much of the rest of Asia, including Indonesia.

A simple arithmetic exercise would be useful here. For ease of calculation, assume that world GDP in 2065 is exactly three times its level in 2015 and that the world population is exactly 10 billion. Therefore, world population will have increased by about 39 percent. This means that GDP per capita must have increased by 216 percent. Over fifty years, that amounts to an annual average growth in real per capita income of 1.55 percent.

That growth is hefty but not spectacular, which is why I predict that world GDP will at least triple.

The main reason for my optimism is that it takes many barriers (high taxes, extreme regulation, etc.) to prevent such growth. I would not be surprised if there were more barriers to growth over the next fifty years than there are now. I would be very surprised, however, if those barriers prevented per capita GDP from growing by at least 1.55 percent annually.

The Chinese and U.S. Economies

According to the World Bank, China's GDP, measured in purchasing power parity, was $18.0 trillion in 2014, and U.S. GDP was $17.4 trillion (2015b, 1). In other words, China's economy is already the largest economy in the world. My prediction that U.S. GDP will be at least double its current level requires only that U.S. real GDP grow by an average of 1.4 percent per year. This is overall growth, not per capita growth. So assume that happens. For China's GDP to be double U.S. GDP in 2065, China's annual growth rate of real GDP must average only 2.7 percent. Of course, U.S. GDP per capita would still be much higher than Chinese GDP per capita.

Moreover, this growth in real GDP in China, in the United States, and in the world will understate the growth of well-being. As innovations such as the Internet, Google, Facebook, and Yelp show, much of the value we currently get is from innovations whose output is priced at zero. Such value, therefore, does not show up in GDP data.

Why do I think it likely that China's economy will grow faster than the U.S. economy? Poorer economies that lag in technology but get basic institutions even approximately right can generally grow faster than more-mature economies. Of course, it is not clear that the Chinese government will get basic institutions even approximately right, but what is clear is that China is improving its basic institutions.

I hasten to add that I am not claiming that we need to worry about this likely event. In my view, we do not. I don't care if China's GDP grows by, say, 4 percent annually if ours grows by 2.5 percent annually. The vast majority of people in both countries will be much better off.

It is true that the Chinese government could use some of that added real GDP to strengthen its military. Indeed, that is likely. Unlike many people in Congress and many

admirals I talk to in the U.S. Navy, however, I do not see this stronger Chinese military as a big threat to the United States. The Chinese government may threaten some of its neighbors. But as I said in a speech at a "boot camp" in Maryland for fifty-five newly chosen U.S. Navy admirals in October 2010, we have a major natural protection from the Chinese government: the Pacific Ocean. Although many of the admirals objected to my claim, all of their objections were about an increasingly powerful Chinese navy that would dominate that part of the world, not about a Chinese navy that might plausibly attack the United States or substantially disrupt its shipping lanes.

World Poverty

The World Bank's criterion for living in extreme poverty is having an income of $1.25 or less a day (in 2005 prices). In 1990, 1.91 billion people were in extreme poverty. In 2011, the number in extreme poverty had fallen to a little more than 1 billion, a drop by almost half (World Bank 2015a). I expect that by 2065 the number of people in extreme poverty will be less than half a billion owing to increased trade and internal growth only loosely connected to trade. It will not be due mainly to a massive increase in immigration to richer countries because the vast majority of governments of richer countries will not substantially relax their restrictions on immigration.

The Work Year

Many people believe that the increasing use of robots or increases in wealth or both will reduce the average number of hours that people work. I think this reduction will happen, but the effect will be modest. My prediction is that the average number of hours worked per year will fall by about 10 percent. People seem to like the extra wealth they can generate by working extra hours so they can buy the luxuries that suppliers are good at creating and supplying. Just as cell phones were a luxury twenty years ago and are now regarded as a necessity by most people in the wealthy and developing parts of the world, other luxuries will also become "necessities" over time.

Fuel and Mineral Prices

With more people in the world and more people with wealth, then, all other things being equal, there will be much higher demand for fuels and minerals. In the late 1980s and early 1990s, few people anticipated that India's and China's economies would grow as much as they did, putting pressure on prices. Such unanticipated increases in demand will cause increases in prices of fuels and minerals. In the longer run, however, the increases in prices will motivate people to search for more fuels and minerals, to produce more fuels and minerals from existing reservoirs and mines, and to figure out ways to conserve those fuels and minerals.[2]

2. For an excellent discussion of the market forces that keep prices of fuels and minerals from rising substantially and even cause them to fall, see Blackman and Baumol 2008.

Moreover, all other things are not equal. Jesse Ausubel (2015) gives a fascinating, empirically backed exposition of the "dematerialization" of the United States. He points out, for example, that the cell phone has replaced maps, newspapers, cameras, CD players, and many other material-intensive items. He also notes that water use in the United States has stayed flat. This brief discussion does not do justice to his very optimistic look at the use of resources. That makes reasonable my estimate that a weighted average of mineral and fuel prices will be no more than 10 percent higher than what it is today.

U.S. Federal Government Spending

U.S. federal government spending, which is now about 21 percent of GDP, will go higher, but in 2065 it will not be higher than 25 percent of GDP. Although there are forces in the budget that look as if they will drive that number higher, the fact that federal revenues have averaged only about 18 percent of GDP for the past sixty-five years means that there will be great resistance to greater spending. What will happen to prevent government spending from going higher than this limit? Long before 2065, the federal government will default on its debt and will likely also scale back some of the major transfer programs such as Medicare and Social Security (Henderson and Hummel 2014). Although it is imaginable that tax revenues may rise to about 20 percent of GDP, revenues much higher than that are extremely unlikely. For that reason, 25 percent is a reasonable upper bound for government spending as a percentage of GDP, and it is likely to be lower than that.

U.S. Economic Freedom

According to James Gwartney, Robert Lawson, and Joshua Hall (2014), the level of economic freedom in the United States ties it with the United Kingdom for twelfth place out of 152 countries rated in 2013. U.S. economic freedom is likely to decline somewhat. Likely factors in the decline are increasing regulation of land use and housing supply, so that more of the United States has the same extreme regulations that coastal California, Oregon, and Washington have, as well as more extreme regulation of the workplace, making it harder for employers and employees to agree on flexible work arrangements. Also, some other countries' economic freedom is likely to increase. The U.S. economy will likely be at or slightly below twentieth place in 2065. Even if the U.S. level of economic freedom were to stay relatively constant, several economies outside the top twenty will likely displace established countries. And that would be alright.

References

Ausubel, Jesse H. 2015. Nature Rebounds. Paper presented at the Long Now Foundation Seminar, San Francisco, January 13. At http://phe.rockefeller.edu/docs/Nature_Rebounds.pdf.

Blackman, Sue Anne Batey, and William J. Baumol. 2008. Natural Resources. In *The Concise Encyclopedia of Economics,* edited by David R. Henderson. Indianapolis, Ind.: Liberty Fund. At http://www.econlib.org/library/Enc/NaturalResources.html.

Gwartney, James, Robert Lawson, and Joshua Hall. 2014. *Economic Freedom of the World, 2014.* Vancouver: Fraser Institute.

Henderson, David R., and Jeffrey Rogers Hummel. 2014. The Inevitability of a U.S. Government Default. *The Independent Review* 18, no. 4 (Spring): 527–41.

Jones, Larry E., Alice Schoonbroodt, and Michele Tertilt. 2008. *Fertility Theories: Can They Explain the Negative Fertility–Income Relationship?* Working Paper no. 14266. Cambridge, Mass.: National Bureau of Economic Research, August.

Rae, John. 1895. *Life of Adam Smith.* London: Macmillan.

World Bank. 2015a. Poverty Overview. April 6. At http://www.worldbank.org/en/topic/poverty/overview.

————. 2015b. World Development Indicators database. July 1. At http://databank.worldbank.org/data/download/GDP_PPP.pdf.