

COMMENTARY

Asiaphoria Meets Regression to the Mean

Chang-Tai Hsieh

I will present the message of the paper through three graphs. Figure 1 presents a scatterplot of GDP per worker of a country relative to the United States in 1980 vs. GDP per worker (again relative to the U.S.) in 1960, where the solid line is the 45-degree line. What I like about this figure is that we can read off both the level of income as well as the growth rate. That is, a country that has converged relative to the United States will lie above the 45-degree line, and a country that has diverged relative to the U.S. will lie below the 45-degree line, and the magnitude of the convergence or divergence is reflected in the distance of the country from the 45-degree line. From looking at this figure, it is evident that the growth miracles over this period are the widely recognized cases of Taiwan and Korea. But another country that grew just as quickly as Taiwan and Korea over this time period is Brazil. This of course was the Brazilian growth miracle that seems almost a mirage these days. One way to see this is to look at the same scatterplot from 1960 to 1990 (Figure 2). As can be seen, Taiwan and Korea continued to grow in the 1980s. On the other hand, the growth miracle in Brazil came to an end by the early 1980s.

Figure 3 plots GDP per worker from 1990 to 2010. As can be seen, the growth miracle in Korea and Taiwan came to an end after 1990. Both countries continued to grow of course, albeit at more modest rates. Nonetheless, starting in 1960 with GDP per worker about 15 percent that of the United States, Korea and Taiwan ended up in 2010 with GDP per worker about 75 percent that of the U.S. And Brazil never recovered and ends up in 2010 with a GDP per worker relative to the United States that is almost the same as what it was in 1960. So although it is clear that high growth in Taiwan, Korea, and Brazil from 1960 to 1980 was mean reverting, there is a big difference between mean reversion in Taiwan and Korea vs. mean reversion in Brazilian growth rates.

The second thing one can see in Figure 3 is the growth story in the past 20 years in China and, to a lesser extent, India. So the central question in this paper is whether growth in China and India will slow down. The paper suggests that, based on the statistical evidence of mean reversion of growth rates, it is

FIGURE 1
Relative GDP per Worker: 1960 vs. 1980

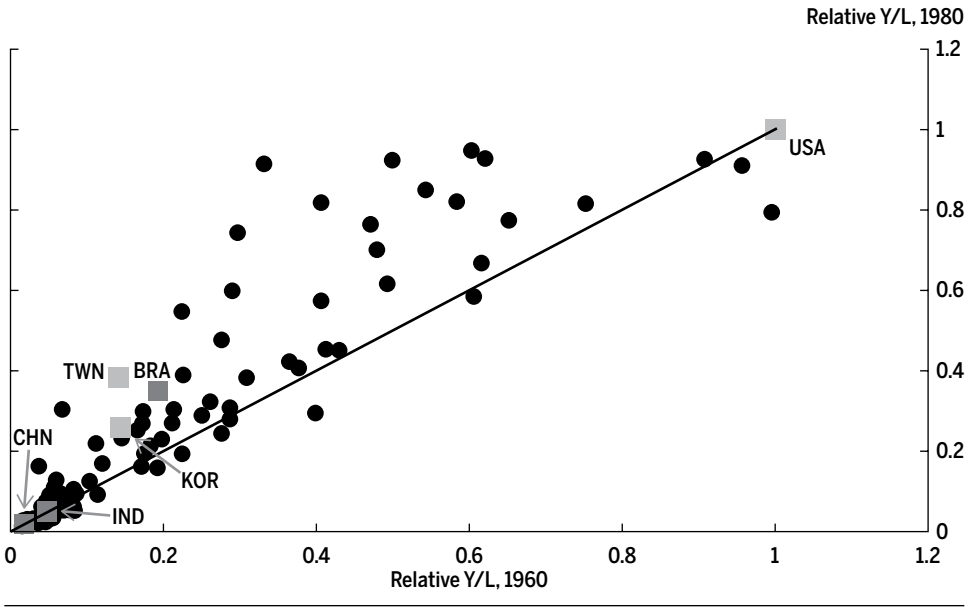


FIGURE 2
Relative GDP per Worker: 1960 vs. 1990

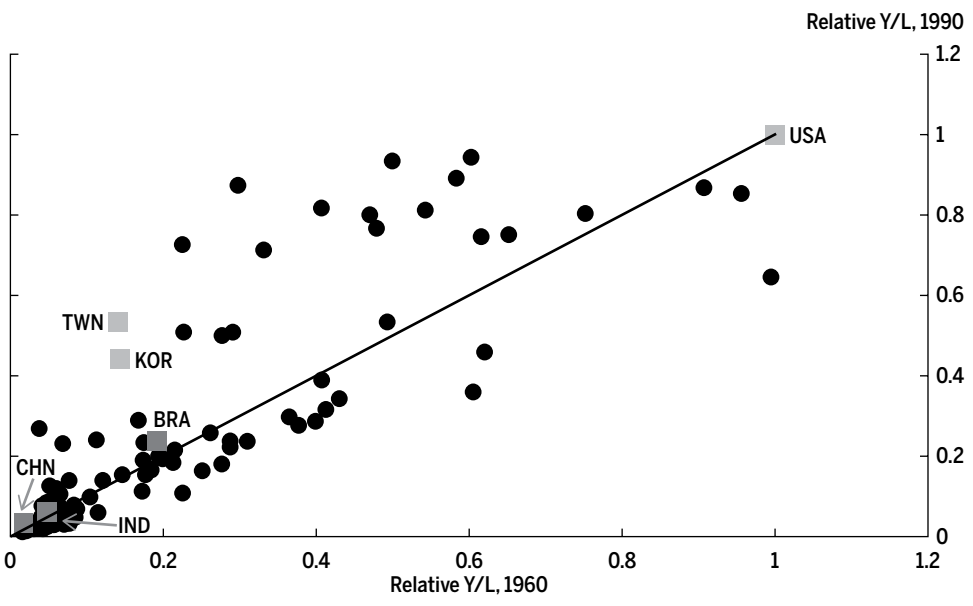
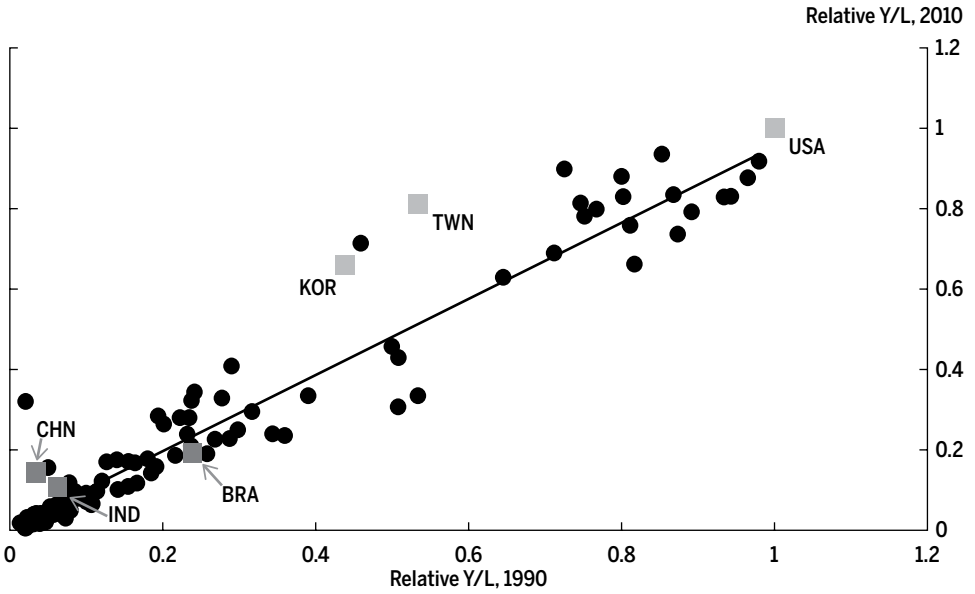


FIGURE 3
Relative GDP per Worker: 1990 vs. 2010



very unlikely that growth rates in China and India will continue to be as high as it has been in the past few years.

There are three points to think about in assessing whether the conclusion of the paper is correct. First, even if one believes that growth is mean reverting, it makes a big difference whether growth in China and India will revert to the mean as in Korea or Taiwan or whether it will revert as in Brazil. Even if growth in China and India slows down, it would be a growth miracle of epic proportions if GDP per worker in China and India end up at 75 percent of the United States. Second, although I am sure that the authors do not believe that growth is simply the outcome of a statistical process, parts of the paper read as if this were the case. Statistics are fine if one wants to summarize data, but if the goal is to make predictions, then they need to impose some structure.

For example, in a canonical neoclassical growth model, a key variable determining growth rates is the country's distance from the frontier. The further away the country is from the frontier, the higher the potential growth rate and the longer the episode of high growth. Viewed in this way, a key fact that seems important is that even after 30 years of high growth, GDP per worker in China in 2010 is still only 17 percent that of the United States, which is roughly where Taiwan and Korea were in 1960. And after 20 years of high growth, GDP per

worker in India in 2010 is still only 10 percent that of the United States. Viewed through the lenses of a neoclassical growth model, it appears that both India and China still have at least several decades of high growth ahead.

However, even when augmented with a minimalist neoclassical framework, there are serious limitations in what the statistics can tell us about future performance. After all, there is no history of a country as large as India and China that has grown as much as they have. There is also no history of countries that were as poor as India and China were 20 years ago that have grown as fast as they have. So without additional information, I think the reasonable answer to the question, “Will growth rates in China and India continue to be high?” is that we simply do not know.

The only way to answer this question with more confidence is to dig deeper into the underlying determinants of growth. For example, what exactly was it that drove the past two decades of high growth in China? We know that China’s growth was not due to the adoption of better “institutions” for business, at least as measured by, say, the widely used World Bank’s Doing Business indicators. For example, China ranks 91st in the world in the overall Doing Business rankings, which puts China in the same league as Guatemala and Zambia. When measured by the “ease of entry,” China ranks 151 in the world, roughly the same as the Congo. So if the improvement of institutions, at least in the way that we think about institutions, were not behind China’s growth, what was it then?

One answer is what I call the Arthur Lewis/labor surplus story. Here, the story is that China’s growth has been driven by the reallocation of rural workers from where their marginal product was zero (or very low) towards non-agricultural sectors where their marginal product was high. The growth of the nonagricultural sector in China then was due to the fact that they were able to grow since they faced a nearly elastic labor supply curve. According to this explanation, growth in China will come to an end once China hits the Lewis turning point, when the labor supply faced by the nonagricultural sector is no longer elastic. The problem with this story is that it implies that wages in China must have remained roughly constant or increased very little. And although it is true that the labor share has fallen in China, real wage growth has averaged over 7–8 percent per year over the past two decades. Real wage growth of such magnitude over two decades is not supportive of a Lewis reallocation mechanism driving growth.

This paper’s preferred story of China’s growth is what I would call the Pritchett/Suharto model of growth. Here, the mechanism driving growth is simply crony capitalism where the cronies of the political elite get benefits, and everyone else has to follow the (bad) rules. This seems like the correct

characterization of the Chinese institutional environment in the past two decades, but the question is how crony capitalism can generate such enormous growth. After all, the fundamental problem with crony capitalism is that the gains to the cronies are almost always outweighed by the losses suffered by those who are on the outside. So the central question is whether the Chinese version of crony capitalism is like that we see in countries such as Indonesia under Suharto, where growth was high for a short period of time but eventually came to an end, or whether there is something different about the crony capitalism that we see in China. I do not think we know the answer to this question, but understanding this, and not cross-country evidence of mean reversion, is the key to whether China will continue to experience high growth in the future.