
GaveKalDragonomics

China Insight Economics

6 September 2011

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Is China heading for the middle-income trap?

All fast-growing economies slow down, eventually. Since World War II, many countries enjoyed episodes of sustained, rapid economic growth during which per capita GDP rose by about 6% annually. All these episodes ended with growth downshifting to a much slower trend—about 2% annual growth in per capita GDP. China has had an extraordinary 30-year run of rapid growth, so many wonder whether it is on the verge of just such a sharp slowdown: will it fall into the “middle-income trap”?

The idea behind the “middle-income trap,” a phrase popularized by a 2006 World Bank [report](#), is straightforward. It is relatively easy for poor countries to grow fast, the argument goes, by taking advantage of their low wages. Once they get a bit richer and wages are no longer so low, growth gets harder because it increasingly depends on more complex institutional factors. Thus many low-income countries have reached middle-income levels, but few middle-income countries have achieved high-income status. The World Bank defines middle-income countries as those with per-capita gross national income of between US\$1,006 and US\$12,275. With 2010 per-capita GNI of US\$4,260 on the World Bank’s methodology, China is now officially an upper-middle-income country. If there is indeed a middle-income trap, China should be about to trigger it.

1— The trap disappears

The argument for the middle-income trap is plausible, but there’s just one problem: the evidence does not support the idea that growth is easier for low-income than for middle-income countries. If anything the reverse is true: it has been quite difficult for most poor countries to break out of the “poverty trap” and generate sustained income growth. Most of the countries that were poor half a century ago are still poor today. By contrast, while some middle-income countries (notably in Latin America) have indeed stagnated, some have also gone on to become rich. Those middle-income countries that have not progressed seem to be the victim of run-of-the-mill bad policies or bad luck, not a mysterious law of development that holds them back.

Yet the threat of the middle-income trap is taken quite seriously by some policymakers in China. Indeed, the 12th Five Year Plan can be read as an attempt to avert problems associated with the middle-income trap, such as a failure to transition from low-wage manufacturing to higher-value-added products and technological innovation. This worry is not a bad thing, as it shows an awareness that countries’ policies need to evolve as their economic conditions change. This is the most important insight from the debate over the middle-income trap.

GaveKal Dragonomics

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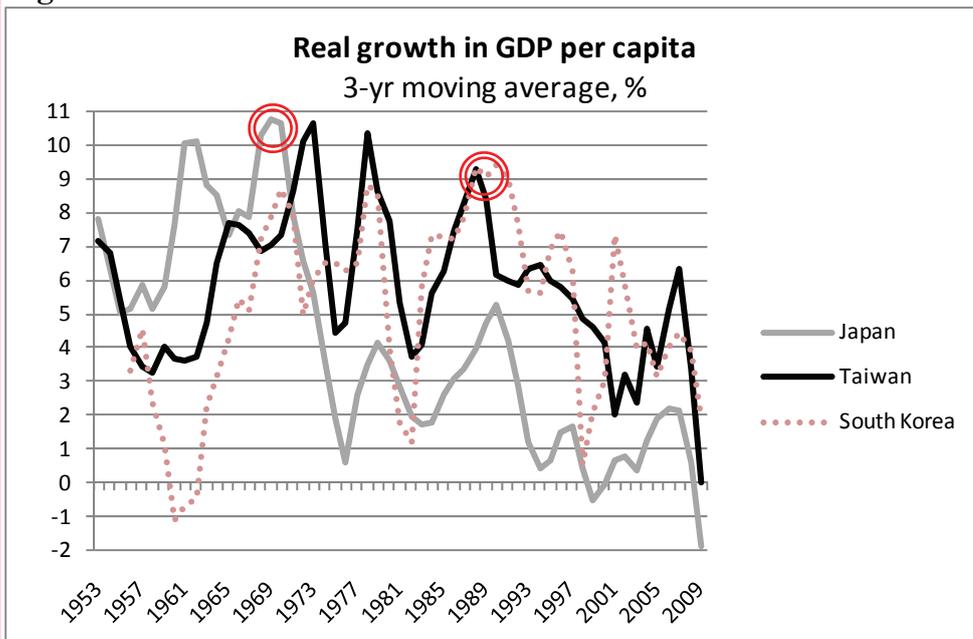
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Economic slowdowns for Japan and Korea came two decades apart but at similar levels of per-capita GDP

Fast growth is too rare for there to be easy rules for how it stops and starts

The potential for fast growth diminishes as countries get more developed

Figure 1.



Source: Penn World Table 7.0

But we do not see much foundation to the idea that crossing a particular level of income will lead to the onset of major economic problems in China. Most of the supposed regularities that support such generalizations disappear under close examination. Examples of the kind of rapid catch-up growth China has enjoyed are simply too few and too diverse to be captured in simple rules. If China's growth does show sharply, the cause will be an identifiable policy mistake or external crisis, and not the crossing of some invisible threshold of per-capita GDP. China still has the potential for several more years of relatively rapid growth, if not at the 10%-plus levels of the past decade, and policymakers will have their hands full ensuring that potential is realized.

2- Keeping up with the neighbors

It is no accident that China's development strategy resembles those adopted by neighboring economies in earlier decades. Japan, South Korea and Taiwan all grew rapidly until they reached rich-country income levels, thereby avoiding the "middle-income trap." Indeed, South Korea and Taiwan are the only low-income economies to have achieved high-income status in the past half century (Japan was already middle-income by 1950).

Why did their growth then slow down? There is no definitive answer, but it seems to be related to the exhaustion of the "low hanging fruit" that enable rapid growth in heretofore backward nations: the reallocation of labor from agriculture to more productive activities, building up the stock of necessary infrastructure and other capital, and introducing advanced technologies and better institutions. Growth naturally gets slower when these processes are mostly complete—which is just another way of saying a country is developed. While economic growth does not stop, it starts to be driven mainly by innovations and productivity improvements. These tend to happen at a much slower rate because they are harder to achieve.

As Figure 1 shows, Japan's slowdown began around 1970, and South Korea's and Taiwan's both hit around 1990. At these turning points, Japan's per capita GDP was just under US\$15,000, South Korea's just over US\$11,000 and Taiwan's just under US\$14,000. (Unless otherwise mentioned, all income figures in this report are in purchasing-power parity terms at 2005 prices.) China's per capita GDP is now around \$7,600, so if its per capita GDP

If China behaves like other Northeast Asian economies it should have another decade of rapid growth ahead

Catching up with rich countries is challenging because they keep pushing out the frontier

Even in Asia, only a few countries have come all the way to high-income status

continues to grow by at least 7% a year in real terms, it will reach this \$14-15,000 threshold in a decade or less. In other words, if China continues to perform like these successful Northeast Asian economies, it should have another decade of rapid catch-up growth ahead of it.

Of course there is no guarantee that China will continue to be as successful as South Korea and Taiwan. Indeed, such success is quite rare. Latin America and Africa have seen essentially no sustained catch-up with rich-country income levels. While some countries have had decent growth rates, given that rich countries also continue to grow there has been little relative convergence in income levels. Asia is exceptional in having three countries that have achieved high income status, but much of the rest of the region still lags behind. As Figure 2 shows, even India for all its recent strong performance has managed relatively little convergence. We will have to go further afield to get a wider sampling of countries that, like China, have experienced sustained catch-up growth.

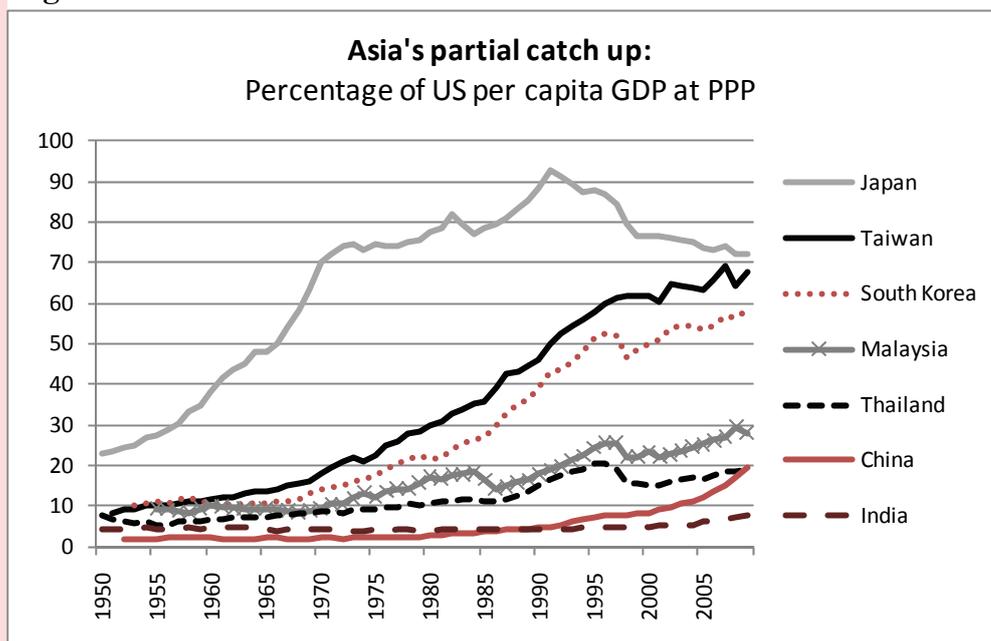
3- Two paths to success

A crucial point is that what we care most about is not the absolute level of per-capita GDP but *per capita GDP relative to the US*. The logic is that the US has for most of the postwar era been the world's most advanced economy, and so represents the global technological frontier. What we want to measure is whether poorer countries can generate enough catch-up growth to converge to the global technological frontier and rich-country income levels. Since rich countries themselves keep growing, the location of the frontier is a moving target: this is what makes real catch-up growth so hard.

For a broader comparison, we draw on data from the Penn World Table database of national accounts. We use a sample of 96 out the 189 available countries, excluding those with small populations (arbitrarily defined as below 5m people) and those with fewer than 30 years of economic data.

What jumps out immediately from the data is just how rare significant catch-up growth actually is. We use 15% of US per capita GDP as the boundary between low- and middle-income status, and 50% as the border between middle- and high-income status. We find that 80% of the 96 countries that

Figure 2.



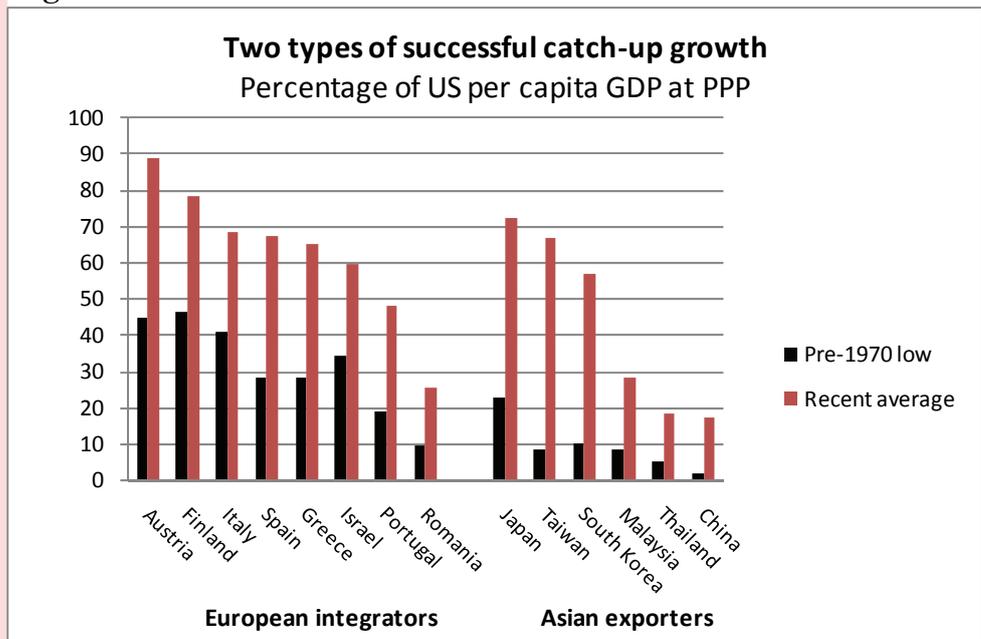
Source: Penn World Table 7.0

The list of countries who have managed substantial convergence in incomes is very short

A low-income trap is a much larger global problem than the middle income variety

In addition to Asia, the European periphery has also seen impressive growth in incomes

Figure 3.



Source: Penn World Table 7.0; GK Dragonomics estimates

were low-income before 1970 are still low-income today. This “low-income trap” seems a much more prevalent phenomenon than the middle-income variety. By contrast, only half of the 24 countries that were middle-income before 1970 are still middle-income today (they are: Argentina, Chile, Cuba, El Salvador, Mexico, Peru, Venezuela, Hungary, Poland, Portugal, Turkey and South Africa). Clearly, several middle-income countries haven’t been able to join the rich-country club despite decades of trying—yet one-third have still done so. The failure of most poor countries to make much progress seems the more serious problem.

Who has been able to crack the puzzle of economic convergence? Only 14 countries have been able to increase their per-capita GDP relative to the US by a significant margin since 1970 (we arbitrarily set this margin at 10 percentage points, but different ways of making the cutoff generate very similar results). These success stories are shown in Figure 3: Austria, China, Finland, Greece, Israel, Italy, Japan, South Korea, Malaysia, Portugal, Romania, Spain, Taiwan and Thailand. Brazil did make the transition from low- to middle-income status, but its cumulative improvement in relative per capita GDP has been small because of its stagnation since about 1980.

Our list of successes excludes small countries like Singapore, as well as those countries whose growth has primarily been driven by resource exports, such as Equatorial Guinea and Botswana. The justification is that their experience is not very relevant to countries that don’t happen to be well-located city-states or sit on top of diamond mines. Hong Kong also qualifies for the catch-up list but is hard to analyze independently of China.

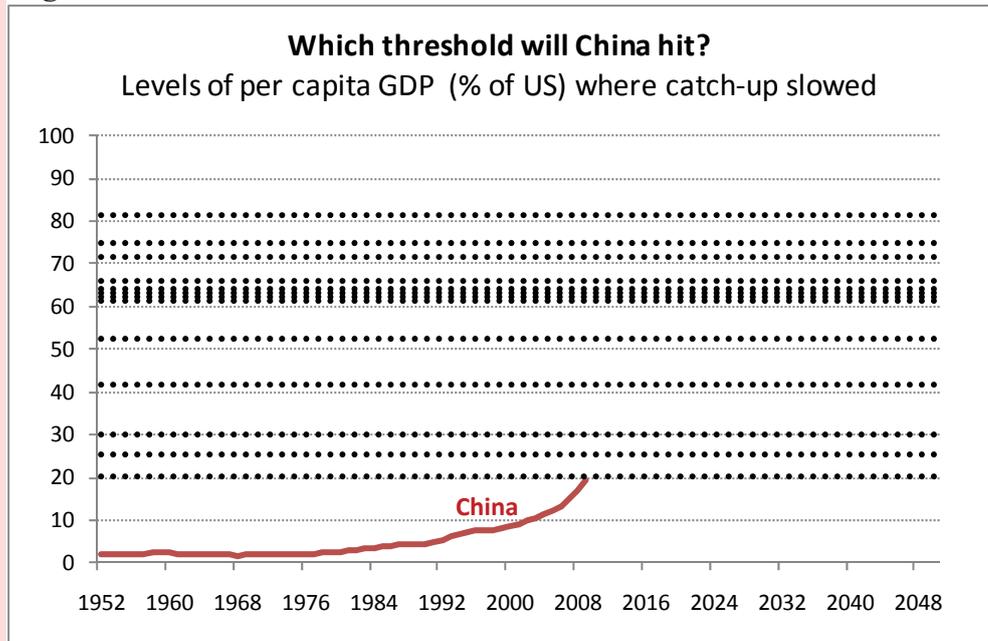
These success stories essentially fall into two categories: countries on the European periphery who integrated with the wealthier core (“European integrators”), and Asian nations who pursued an export-led industrialization strategy (“Asian exporters”). Israel falls somewhere in between in terms of both geography and economic model. But in reality, these two stories are different versions of the same process: an integration with global markets that spurs a more competitive organization of the domestic economy. Despite the current problems in Europe’s currency union, it is worth remembering how successful its broader project of economic integration has been.

There is no single income threshold over which China must trip

There is little similarity in the income levels at which other episodes of rapid catch-up growth have ended

Bad news does come in bunches: many slowdowns are linked to global or regional crises

Figure 4.



Source: Penn World Table 7.0; GK Dragonomics estimates

4– Patterns of catch-up growth

All of these successful countries, with the exception of China, have passed through a phase of rapid catch-up growth and are now growing more slowly. But there is little uniformity in how this transition to slower growth happened. Almost any level of per-capita GDP could be invoked as a precedent: Thailand's catch-up slowed down at 20% of US per capita GDP, Romania's at 30%, Portugal's around 40%, South Korea's around 50%, Italy and Israel's around 60%, Austria's around 70% and Finland's around 80%. On average, catch-up growth slows around 55% of US per capita GDP level.

For what it's worth, this threshold is similar to the one identified by Barry Eichengreen and two Korean co-authors in a recent [paper](#) that used a different methodology for examining growth slowdowns. But we do not think this average is terribly meaningful, given the wide range in this small sample. It is true that China has now reached the same level of income convergence at which Thailand started slowing down. But there is no obvious reason for assuming that China's growth slowdown will follow Thailand's pattern, rather than that of any of the other successful catch-up countries (Figure 4).

The amount of convergence in incomes the successful countries achieved also varies greatly, from a low of around a 15 pp increase in per-capita GDP relative to the US, to a high of around 50 pp. The average increase in relative per-capita GDP among the success stories is 34 pp. China has only risen 15 pp so far. Again, one can invoke precedents to say that China is on schedule to slow down now, or other precedents to say that it is not.

More interesting patterns emerge when we look at when in history these slowdowns happened: Austria, Israel, Japan, Portugal and Spain all slowed down in the oil shock of the early 1970s. South Korea, Malaysia, Taiwan and Thailand have all transitioned to slower convergence since the 1997 Asian financial crisis. It looks like catch-up growth more often falls victim to financial crises and external shocks than the simple exhaustion of its own momentum. Those risks are not trivial ones, but they will hardly be news to Chinese policymakers.