SPECIAL REPORT

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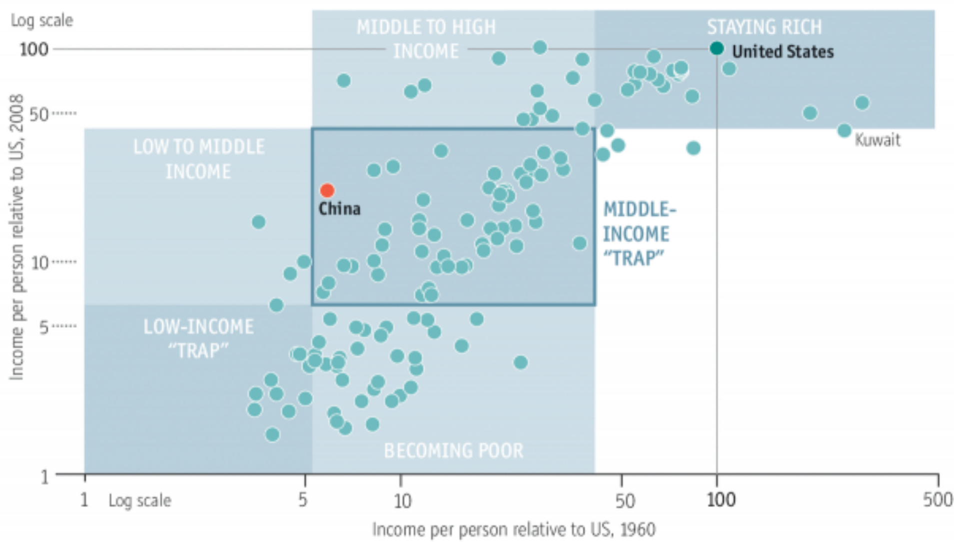
EVERY FEW YEARS *Foreign Affairs*, a magazine about international relations, provokes a fracas in a neighbouring discipline, international economics. In 1994 it published an essay by Paul Krugman, "The Myth of Asia's Miracle", which re-examined the source of the tigers' success. Then, after the Asian financial crisis, it

came up with “The Capital Myth” by Jagdish Bhagwati, which re-examined the case for free capital flows, the source of the tigers’ humiliation. In 2004 it offered “Globalisation’s Missing Middle” by Geoffrey Garrett, then at the University of California, Los Angeles. This essay is cited much less often than the other two, but in a roundabout way it has been equally influential. It argued that middle-ranked countries were in a bind, unable to compete either with the cutting-edge technology of rich nations or the cut-throat prices of poor ones. “Middle-income countries”, it said, “have not done nearly as well under globalised markets as either richer or poorer countries.”

To prove his point, Mr Garrett ranked the world’s economies by GDP per person in 1980, dividing them into three groups: top, middle and bottom. He then compared their growth by that measure over the subsequent two decades, finding that the middle-ranked economies grew more slowly than either the top or bottom ones. Three years later Homi Kharas and Indermit Gill of the World Bank cited Mr Garrett’s essay in a book about East Asia’s growth prospects. They invented the term “middle-income trap”, which subsequently took on a life of its own.

The trap can be interpreted in a variety of ways, which may be one reason why so many people believe in it. Some confuse the trap with the simple logic of catch-up growth. According to that logic, poorer countries can grow faster than richer ones because imitation is easier than innovation and because capital earns higher returns when it is scarce. By the same logic, a country’s growth will naturally slow down as the gap with the leading economies narrows and the scope for catch-up growth diminishes. All else equal, then, middle-income countries should grow more slowly than poorer ones. But Mr Garrett was making a bolder argument: that middle-income countries tend to grow more slowly than both poorer and richer economies.

The notion of a trap resonated widely with policymakers, note Messrs Kharas and Gill, especially in countries where growth had lost its lustre. Najib Razak, Malaysia’s prime minister, began talking about it in 2009. Trap-talk also spread to Vietnam’s leaders in 2009 and appeared in South Africa’s National Development Plan in 2012.



By far the most prominent trap-watcher is China, one of the few middle-income economies that is more than middle-sized. In 2015 Lou Jiwei, then China's finance minister, said that his country had a 50% chance of falling into the trap in the next five to ten years. The same fear haunts Liu He, an influential economic adviser to Xi Jinping, China's president. Mr Liu was one of the driving forces behind a report entitled "China 2030", published in 2012 by his Development Research Centre (DRC) and the World Bank. The report featured a chart that has perhaps done more than any other to spread the idea of a middle-income trap (see chart). It showed that of 101 countries which counted as middle-income in 1960, only 13 had achieved high-income status by 2008. The rest spent the intervening 50 years trapped in mediocrity or worse.

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Slow and queasy

The evidence in the chart and Mr Garrett's essay was suggestive but hardly systematic. However, it was buttressed by a more rigorous pair of studies by Barry Eichengreen of the University of California, Berkeley, Donghyun Park of the Asian Development Bank and Kwanho Shin of Korea University, which reached similar conclusions. They looked for fast-growing economies that subsequently suffered

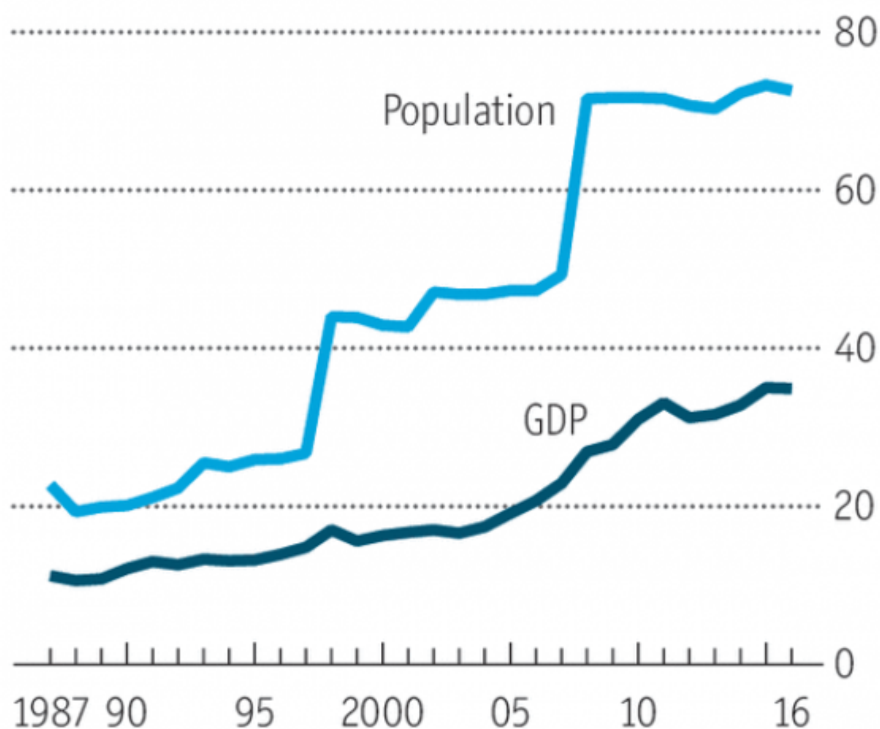
sustained slowdowns (defining fast growth as at least 3.5% per person, and a slowdown as a two-percentage-point drop in growth, both averaged over seven years). Their research indicated that these slowdowns seemed to cluster at GDP levels of $11,000 and $15,000 per person (converted into dollars at purchasing-power parity).

Perhaps the most sophisticated analysis was published by Shekhar Aiyar and his colleagues at the IMF in 2013. They sought to distinguish between growth traps and the natural slowdown that any country can expect as it converges with leading economies. To do this, they first calculated an expected growth path for each country, based on its income per person as well as its human and physical capital. Second, they looked for countries that were growing faster or slower than expected, resulting in positive or negative growth gaps. Third, they looked for unusually severe and sustained slowdowns, when these growth gaps widened sharply. They found that middle-income countries were more likely to suffer such setbacks, no matter how middle income was defined.

The combined weight of this economic evidence and policymakers' intuition is hard to ignore, and seems to justify scepticism about the growth prospects of China, Malaysia, Thailand and many other emerging economies. But neither the intuition nor the number-crunching is as convincing as it looks.

Intuitively, it seems to make sense that middle-income countries will be squeezed between higher-tech and lower-wage rivals on either side. But those rivals rely on high technology or low wages for a reason. Rich economies need advanced technologies and skills to offset high wages. Poor countries, for their part, need low wages to offset low levels of technology and skill. The obvious conclusion is that middle-income countries can and do compete with both, combining middling wages with middling levels of skill, technology and productivity.

To be sure, those average levels mask huge variations. Most economies have a mix of impressive leading firms and unsophisticated stragglers. The productivity of the top quarter of American firms is at least 4.86 times that of the bottom quarter, according to a study by Eric Bartelsman, Jonathan Haskel and Ralf Martin published by the Centre for Economic Policy Research. In developing countries the gaps are even bigger. Indeed, middle-income countries are often more accurately described as mixed-income economies.



Shaping the mix are at least four possible sources of growth in GDP per person. The first is moving workers from overmanned fields to more productive factories (structural transformation). The second is adding more capital such as machinery per worker (capital-deepening). The third is augmenting capital or labour by making it more sophisticated, perhaps by adopting techniques that a firm, industry or country has not previously embraced (technological diffusion). The final source of growth derives from advances in technology that introduce something new to the world at large (technological innovation).

Economists find it helpful to keep these sources of growth separate in their minds. The mistake is to think they remain separate between countries. In reality, in most countries several of these forces are at work simultaneously, at different paces and in varying proportions. Countries do not wait until the last surplus farm worker has left the fields to begin capital-deepening. Nor do they wait until the returns to brute capital accumulation have been exhausted before they start to increase the sophistication of their production techniques. So development does not proceed in discrete stages that require a nationwide leap from one stage to the next. It is more like a long-distance race, with a leading pack and many stragglers, in which the

result is an average of everyone's finishing times. The more stragglers in the race, the more room for improvement.

Positive splits

The statistical work by Messrs Eichengreen, Park and Shin shows that middle-income countries do suffer slowdowns. But since it looks only at countries with an income per person of over $10,000, it cannot say whether they are more vulnerable to such setbacks than poor countries. That was not a question the authors ever intended to answer. When their method is extended to countries further down the income scale, it turns out that slowdowns among poorer economies are at least as prevalent as among middle-income ones.

Countries in the middle do slow more often than rich countries, but that is partly because rich economies rarely grow fast enough (3.5% per person over seven years) to be eligible for a slowdown as the paper defines it. Nor is such a slowdown sufficient to trap an economy. Hong Kong, Singapore, South Korea and Taiwan have all endured at least one, and none of them is trapped in middle income. Growth in China's GDP per person has also slowed, to about 7.6% over the past seven years, against more than 10% over the previous seven. That qualifies as a sharp slowdown by the authors' definition. But China is not trapped; it is still growing faster than most countries, rich or poor.

A similar problem bedevils the paper by Mr Aiyar and his IMF colleagues. To see why, suppose a miracle economy were to grow much faster than an economist would expect, given its level of income, schooling and capital. Imagine its growth were then to moderate to a more normal pace. That might count as a severe slowdown by the authors' definition (since the country's highly positive growth gap has dropped to zero), even though the economy was still converging on high income at a normal pace.

Or suppose a country were rapidly to increase its investment in schooling and physical capital to avoid the middle-income trap. If the strategy were successful, it might result in steady growth. But with the method used by the IMF paper, that constant growth could nonetheless count as a severe slowdown because, other things being equal, their model expects improved education and deeper capital to raise the pace of growth, not merely shore it up.

Neither of these papers, then, proves the existence of a middle-income trap as commonly understood. Indeed, Mr Eichengreen has said that his line of research was intended to explore different questions. But what about the DRC's and World Bank's "killer" China 2030 chart?

Its criteria for middle income are idiosyncratic. They include any country with a GDP per person between 5.2% and 42.75% of America's, measured at purchasing-power parity. The good news is that eight countries on the chart (including Turkey, Malaysia, Oman and Poland) have since escaped the middle-income bracket thanks

to better data or further growth. Ten others, the Slovak Republic among them, have also crossed that threshold but were not included on the chart because either the data or the countries themselves did not exist in 1960.

But the chart contains a more fundamental flaw. Its criteria for middle-income are too broad to be useful. By its definition, a country with a GDP of just $590 per person (at 1990 prices) counted as middle income in 1960. That includes countries like China in the middle of its Great Famine. At the other extreme, a country with a GDP per person of $13,300 in 2008 also counted as middle income. This upper threshold for 2008 is more than 2,000% higher than the lower one for 1960. No wonder so many countries remained stuck in between them.

One of them was China. Its GDP per person increased tenfold between 1960 and 2008, despite the famine and the Cultural Revolution. But because it started that period above $590 and ended it below $13,300, it remained confined to the middle square of the China 2030 grid.

One of the World Bank staff involved in the China 2030 report has subsequently co-written a paper investigating the middle-income trap more closely. It found no "evidence for [unusual] stagnation at any particular middle-income level". More recently, research by Xuehui Han of the Asian Development Bank and Shang-Jin Wei of Columbia, and separately by Lant Pritchett and Larry Summers of Harvard, has also cast doubt on the trap. Another Harvard economist, Robert Barro, the doyen of empirical growth studies, thinks that "this idea is a myth." The transition from middle to upper income is certainly "challenging", he writes. But it is no more challenging than the transition from low to middle.

Messrs Kharas and Gill are themselves agnostic about the precise definition and empirical salience of the term they invented. They introduced it "with modesty, because we had not rigorously established its prevalence", they wrote ten years later. Since some middle-income countries have undeniably stagnated, barriers to their growth clearly exist. As Messrs Kharas and Gill see it, what matters is whether these threats take a distinctive "middle-income" form, not whether they are more common or severe than the dangers facing other economies.

Trappist agnosticism

The duo came up with the term chiefly because the economics profession seemed to offer no clear or convincing growth recipe for middle-income countries. Partly as a result, policymakers often felt caught between two stools: either they clung on to old growth strategies (such as low-end manufacturing) for too long, or they embraced sophisticated models (such as the "knowledge economy") too soon. The middle-income trap is really a middle-income dilemma.

What about Mr Garrett's original finding in *Foreign Affairs*, which helped inform the thinking of Messrs Kharas and Gill? An effort to replicate that exercise, with newer data covering the same 20 years, shows a much narrower gap between middle- and

high-income growth for the period from 1980 to 2000. And that gap all but disappears if the countries are divided into three groups of equal size, rather than Mr Garrett's somewhat arbitrary 25-45-30% split.

More importantly, middle-income countries, even by his definition, grew faster than their high-income counterparts over the two decades from 1990 to 2010, as well as from 1995 to 2015. It seems that in the 1990s and 2000s middle-income countries were quite capable of competing with cutting-edge economies. So what tripped them up in the 1980s? Part of the answer may lie with America's Federal Reserve.

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