Measuring GDP
The dragon takes wing

New data suggest the Chinese economy is bigger than previously thought
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THERE are a number of ways to measure the might of a nation: military power, commercial clout, cultural influence. But ever since statisticians started rigorously calculating economic output in the 1930s, economists have fixated on one measure: gross domestic product (GDP). By one variant of that yardstick, China is on the verge of becoming the world’s mightiest country.

Comparing the economic output of countries is tricky. The most straightforward way is to convert GDPs into a single currency (usually dollars) at market exchange rates. This is a good way to gauge countries’ international heft, and by this measure China’s economy is still 43% smaller than America’s. But for comparing living standards or growth rates, market exchange rates can be misleading. Exchange rates can be volatile, yielding vastly different GDP values on different days. Governments often meddle with them. Most important, they are influenced by prices for internationally traded items, but they do not reflect the cost of purely domestic goods and services, such as haircuts or bus rides. Since rich-world barbers are more expensive than those in poor economies but not vastly more productive, using market exchange rates to compare GDPs understates the productive capacity and living standards of the emerging world.

Our interactive prediction tool lets you estimate when China’s GDP might eclipse America’s at market exchange-rates (http://www.economist.com/uschinagdp)
The International Comparison Programme (ICP) was established in 1968 in an attempt to allow for such things. Statisticians collate the cost of comparable goods and services in different countries. They then adjust output figures to take account of the lower cost of those items in poorer countries—a method known as purchasing-power parity (PPP). The Economist’s Big Mac index is based on the same premise, although it looks at the price of just one item. The ICP’s first survey in 1970 took in only ten countries. The latest, released on April 30th but based on prices from 2011, provides data for 199 economies and estimates for another 15 (see chart).

The previous ICP survey, released in 2005, attracted criticism for its results from China, which were based on data from just 11 cities. This, some argued, overestimated the cost of living and therefore underestimated the size of the Chinese economy on a PPP basis. That, along with the difficulty of accounting for varying rates of inflation since 2005, meant the PPP data were getting ever more inaccurate: the new data put China’s PPP exchange rate 20% higher. The old PPP exchange rates had suggested that China’s economy would overtake America’s in 2019; the new ones imply that it will do so by the end of this year.

A similar uprating has caused a shuffling of the pack elsewhere, too. Indonesia, which was thought to be the world’s 15th-biggest economy, is now ninth. Indeed the six biggest emerging economies now produce goods and services of equal value to the six biggest rich countries. Further number-crunching is required to work out the impact of the new exchange rates on the global poverty rate (which is typically defined to include all who live on less than $1.25 a day at PPP); that will take a year or more. But the ICP’s report does tentatively suggest that “the world has become more equal”, as the number of people living in countries with a GDP per person of at least half of America’s has risen slightly, from 15% in 2005 to 16% in 2011.

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