

Not so long ago – as recently as the 1990s, the world was ‘awash with oil’. Today, while oil reserves remain ample, production is hard put to keep pace with demand. True, there is a lot of political uncertainty to jack up the price of crude oil, through threats on capacity to produce, transport and refine it, but there is increasing recognition that much of the current price hike is demand induced. China’s role deserves our attention.

China has long been an ‘emerging’ economy, standing out only because of its 1.3 billion inhabitants. China’s impacts on world commodity, product and financial markets have been under-estimated almost across the board. Statistics were reputed to be unreliable and to have over-estimated China’s economic growth. The latter was confined to its ‘Pacific rim’, leaving the hinterland to emerge from agricultural subsistence under inefficient control from the Communist centre.

Yet the examples of other Far Eastern economies have been staring us in the face for decades, telling us not to dismiss China lightly. Japanese GDP growth, particularly in the 1960s and 70s, South Korea’s and Taiwan’s in the 70s and 80s suggest that the PRC has a potential over several decades to grow its GDP by at least 8 percent per annum. China’s latest Five Year Plan chalks in a ‘modest’ 7.5 percent per annum. If we add in that China is making a comeback from past economic glory and that the starting point back in 1980 was an ‘anti-market’ economy, then these targets begin to look low.

China has been upgrading the measurement of its economy to take better account of the service sector. Not only has the economy been sized up, making energy consumption per unit of GDP look more reasonable, but the growth rate of GDP has been revised to 9.9 percent p.a. from 9.4 percent p.a. for the period 1993–2004. Moreover, the OECD’s first in-depth report on China, published last September, situates growth potential at 9 percent p.a., or more, for a considerable period. This is a formidable mover when such economic momentum is attained by 20 percent of the world’s population. It could confound all those who say that recent performance is unsustainable

and argue whether the overdue ‘landing’ will be ‘soft’ or ‘hard’.

These observations make it all the more surprising that the sister organisation of the OECD in Paris, the IEA, has persistently under-estimated Chinese economic growth in its otherwise impressive annual *World Energy Outlook* publications. Every even year, the IEA provides detailed statistics – in particular, projections by decade

Personal Commentary Derek Riley

and by primary energy source through 2030 across the world – which serve as a reference and benchmark for energy analysts. True, its focus here is on the long term, with 2010 merely a stepping stone on the way. Yet, for China, the 2010 projections look increasingly at odds with what the IEA publishes in its Monthly Oil Reports on the short-term aspects of the oil market.

As recently as the 2002 Outlook, the IEA’s working assumption for China’s GDP growth during the current decade was a mere 5.7 percent per annum. Admittedly, in its 2004 Outlook, the IEA revised upwards China’s GDP performance, putting it at 6.4 percent for the period 2002–10, no doubt counting on an impending cyclical downturn. Yet the evidence of 2003 and most of 2004 was already to hand – a trajectory of over 9 percent p.a. growth in both years. 2005 notched up almost 10 percent. The result is that for the IEA’s baseline assumption to be fulfilled in 2010, there is scope for only 4.5 percent p.a. GDP growth during the second half of this decade, even before the GDP revisions (4.3 percent p.a. after them).

As changes in demand for energy are a function of GDP and energy intensity (energy requirements per unit of GDP), any under-estimation of GDP growth must be made up by more efficiency gains than projected for overall energy

demand projections to stay unchanged. The IEA has a reduction of 2.6 percent p.a. in energy intensity over the period 2002–10. If, however, projected energy requirements in 2010 are to be maintained and GDP continues to grow by say 8.5 percent, then efficiency gains will have to average 5 percent p.a. over the eight-year period. This is a tall order and requires a critical look at the assumptions and data.

China’s estimated primary energy requirement in 2005 is already higher than the IEA’s (2004) projection for 2010. It seems too that China’s GDP has entered an energy-intensive phase, as the rate of efficiency gains has dropped to 1.6 percent p.a. over the last five years, after 7.3 percent p.a. throughout the 90s. Let’s assume a 3 percent p.a. efficiency gain accompanying 8.5 percent p.a. GDP growth over the next five years. If this looks ambitious, it still leaves China’s energy requirements expanding by 5.3 percent p.a. We can add a heroic assumption that indigenously produced coal supplies most of the increment for power generation, but woe betide the CO₂ emissions that go with it. Given the inertia and lead times to bring on capacity for the other forms of energy, oil inputs in this ‘update’ scenario are much more than just a residual.

China accounted for 6 percent of world oil demand in the year 2000 and 8 percent in 2005. By 2010, with these hypotheses its share will reach 10 percent, or some 10 mb/d (the IEA’s latest figure is 8.7 mb/d). Perhaps more significant to world oil markets and prices is the size of China’s net oil imports: 6 mb/d in 2010, after 3 mb/d in 2005 and 1.3 mb/d in 2000. China has difficulty in raising oil production and is scampering to secure reserves overseas. At a time when supply limits are being tested on a number of fronts, China’s probable average annual addition to world demand and imports of some 0.6 mb/d can only add to tensions. It may be a long time before the price of crude oil gets back to its hypothetical equilibrium price of \$30/bl. Reserves are not being developed fast enough.