

Like most accidents, the price explosion of 2004–5 was the result of an unlikely combination of events. In 2004 world oil demand was about 2 mb/d above trend, mainly in China but also in the United States, while non-OPEC supply was 0.5 mb/d below. OPEC through 2003 and early 2004 carefully managed to prevent any excessive build-up of stock in importing countries, then, as prices surged in mid 2004, it became clear that Iraq and Venezuela were producing less than expected. Finally, in 2005, Hurricane Katrina disabled some production and about 2 mb/d of refining capacity in the USA. ‘Normally’ one could expect these exceptional and unrelated events to unwind and prices to return in a couple of years, as they always have done after previous surges, to something like a 5-year average. Depending on whether one includes 2004 itself, this would be \$26–29 or less.

But what is ‘normal’ now? For the first time in over 20 years there is no structural surplus of crude production or refinery capacity. Reconstruction in the Gulf Coast will not happen quickly because of the shortage of rigs and oilfield service capacity. Iraq and Venezuela are unlikely to realise their production potential within the next two or three years. Five or ten years ahead today’s major oil exporters will reach a plateau of production, either because they choose to follow very conservative depletion policies (as Middle East exporters say they do), or because, according to the ‘peak oil’ school, recoverable reserves are less than advertised. Meanwhile, in the OECD consuming countries, the environmental difficulties of expanding or building new refineries will defy economics. This is the case for the ‘new era’ argument for permanently ‘high’ (\$50 ± 10) crude prices and related prices for gas.

But if there is this kind of new era on the supply side we cannot sensibly describe it in terms of the oil and gas business alone. Judgement may be deferred, but the laws of economics have not been suspended. The price of oil, and related gas prices, cannot double without having any macroeconomic effect, even though oil and gas are a smaller input to the economy than 30 years ago. There

has to be a matching ‘new era’ in the world economy. Some commentators take comfort from the fact that, so far, a year of ‘high’ oil prices does not seem to have had much effect on ‘core’ inflation (which is defined to exclude energy prices, but would pick up increases in wages and prices responding to energy

price increases). But households and businesses suffer all of the higher energy costs, not just the ‘core’. There is not much scope for using less energy in the short term, and, unless they are fed with inflationary money by their central banks they will cut spending on other goods and services. This reallocation of budgets towards energy will put people out of work and firms out of business and within a year or two pull the consuming countries’ economies into recession. They are already at risk because of unsustainable imbalances in saving, investment, government deficits and currencies: correcting these imbalances is likely to add to the downward pressure on the economies. That will reduce the demand for oil, re-create surpluses at the margin of the oil and gas business, and bring prices down, probably quite rapidly, as the fall in demand will coincide with the increase in oil capacity which is going on at the moment. I regard this scenario as the most likely for 2006.

The main alternative, to which many people would subscribe, is that the effect on the world economy will be moderate, demand will fall somewhat while supply increases, and we will in the medium term get into the kind of ‘commodity investment’ cycle which I described in my book *The New Economy of Oil* (2001) but at lower volumes, and higher prices, than I envisaged. There will be competition in this cycle, because of the mismatch between oil

reserves and present production capacity, and the continuing emergence of new sources of supply such as Alberta. Unless OPEC tries and succeeds to impose quotas on *expansion* its role will be limited to providing some kind of safety net – an important, but not trendsetting function.

For medium- to long-term trends we should also look outside the oil industry itself. The price increases of the two oil shocks wiped 10 percent off oil’s share of the OECD energy market. Since 1986 the oil share has been stable – slightly declining – at around 40 percent in the OECD, while the price averaged (until this year) \$26 (all prices in \$2004). An oil price in the \$30–40 range will certainly cost oil market share: higher prices will change it more. Nearly half world oil consumption today is outside the transport sector. Higher oil prices will eventually bring on long distance gas supplies to Asia and the USA for which there are many projects. They will bring coal back into power generation, probably even with sequestration of carbon. Nuclear plants will become economic and some will be built. Gas and electricity will replace oil in the industrial sector. If in 2003 oil had shifted out of the non-transport markets in the rest of the world to the same extent that it had already been shifted in the United States, world oil demand would have been 17 mb/d lower.

On top of inter-fuel competition outside the transport sector there will be technology competition in all categories of final consumption. Industries that supply consumers with energy-dependent vehicles, machines, and buildings will compete to reduce their dependence with technical improvements which are known today but have lacked enough economic stimulus and market development. There will be more efficient, possibly hybrid cars, better electronic control of combustion everywhere, all helped by policy-driven regulation aimed either at climate change, environmental, or muddled ‘energy security’ objectives. The competition that matters will be the competition between the technologies that shape energy demand. Oil supply will be important, of course, but the winners will be looking beyond petroleum.

Personal Commentary John Mitchell