Beyond boom and bust?

America’s shale industry faces constraints

The limits of being an oil superpower

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THE HISTORY of America’s shale industry is brief and dramatic. In just a decade the country has seen the spread of innovative techniques to extract oil and gas locked inside shale rock; the lifting of a decades-long ban on crude exports; a price crash that seemed to decimate the industry—and now a price recovery. Next year the shale boom will account for the biggest surge in one country’s oil output since the International Energy Agency began ˙ng track. America is now the world’s

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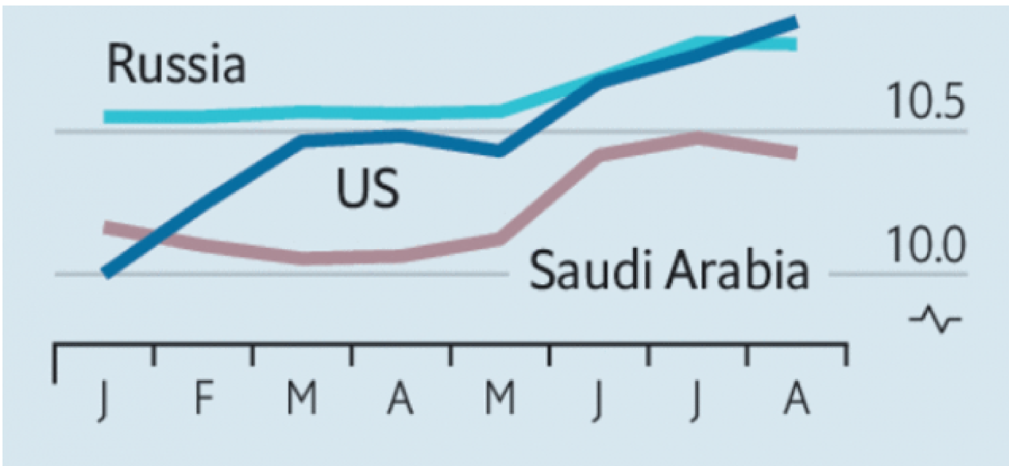
The upshot is that the world increasingly relies on American shale. In June America produced 13% of global crude oil, nearly twice the proportion of June 2008; that share will probably rise. This shift is extraordinary, to be sure, but the power it hands to America can also be exaggerated. “The United States is the dominant energy player,” Larry Kudlow, Mr Trump’s economic adviser, boasted this week, able “to cover any shortfalls”. In fact, shale is also bumping against its limits.

In the short term, these limits include bottlenecks in the pipeline infrastructure needed to get oil to market. Companies in the Permian Basin, which spans west Texas and south-eastern New Mexico, are producing more oil than they can pipe out (see article). New pipelines due late next year should help.

Other problems are harder to resolve. Extracting oil from shale has become more efficient since 2014: the median break-even price for producing a barrel is $46. But costs are rising. Executives complain about a long-term labour shortage. Productivity gains in some regions are slowing as wells are drilled closer together. To blast more oil out of rock, companies are now using eye-popping amounts of



International oil companies have the size and logistical expertise to cope with some of these problems. Even as many of them cut spending on complex, long-term projects, they are putting more money into shale. Costs are more predictable and the timeline far shorter than for a giant project offshore. Chevron, BP and ExxonMobil all own large swathes of America’s most productive basins. Their entry makes further consolidation likely, as shale specialists seek the benefits of scale. Those specialists that remain are beholden to investors, not to politicians bent on pursuing energy dominance. And their investors increasingly demand that shale firms earn a profit, rather than merely grow. As the industry matures and costs rise, in other words, recent leaps in output will probably become more modest. For the first time American shale companies will this year earn more from operations than they spend on new projects and dividends, reckons Morgan Stanley, a bank.

About a decade after American shale firms began to surge, their most fervent backers can rightly claim that innovation has given the world a vast new source of oil and gas. Shale producers can indeed ramp up output relatively quickly. But America is hardly energy-independent. Last year the country imported more than 10m barrels of petroleum each day, equal to about half of its consumption. And the ability of the shale industry to dampen oil-price shocks is easily overstated. The

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