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## Pendulum swings on American oil independence

By Ed Crooks



Looking up: an oil derrick in North Dakota. The state at the heart of a national oil boom, where once inaccessible hydrocarbons are being tapped, boasts the lowest unemployment in the US

On [TheTruckersReport.com](http://TheTruckersReport.com), a website that helps American drivers find out about job opportunities, the forums have been buzzing about vacancies opening up in North Dakota. As one user wrote recently, pretty much anyone who wants a job can find one there. "It's just great that there's actually good paying work that makes you feel like an American again," he said.

The sparsely populated state is at the heart of the [new US oil boom](#) and there is a desperate need for drivers of equipment trucks and oil tankers. As a result, North Dakota has the lowest unemployment in the union – just 3.5 per cent, compared with national average of 9.1 per cent.

The true significance of the oil rush, however, will be felt far beyond this rural state on the Canadian border. Along with similar booms that are under way or expected across North America, from [Alberta](#) to Texas, it is a development

that holds profound implications for the economy of the US and its status as superpower. In prospect is energy independence – a decades-old dream of American politicians of all stripes.

“Over the past couple of years, there has been a great U-turn in US oil supply,” says Daniel Yergin of IHS Cera, the research group. “Until recently, the question was whether oil imports would flatten out. Now we are seeing a major rebalancing of supplies.”

Many analysts expect that in the coming decade the US will leapfrog Saudi Arabia and [Russia](#) to become the world’s largest producer of liquid hydrocarbons, counting both crude oil and lighter natural gas liquids such as propane and ethane. That optimism reflects the increasing flow of “tight oil” as well as [gas from shale](#) – rock formations holding reserves unlocked through new extraction technologies.

Hydraulic fracturing (pumping a mix of water, sand and chemicals underground at high pressure to crack the rock) and long-reach horizontal drilling (sending wells up to a mile sideways and more than a mile below the surface) have transformed US gas production, opening up reserves some estimate will last 100 years. Now these techniques, used in places such as North Dakota, are having a similar impact on oil output. Already, America has cut the share of its oil consumption met by imports from more than 60 per cent in 2005 to 47 per cent last year.

There is still plenty of uncertainty about the outlook. “You can’t just draw a straight line into the future,” Mr Yergin warns. Nevertheless, the growth in US and Canadian production from new sources, coupled with curbs on demand as a result of more efficient use of fuel, is creating a realistic possibility that North America will be able to declare oil independence.

The benefits of such self-sufficiency are sometimes overstated. The oil market would still be global and economies interconnected – so the fates of Saudi Arabia, Iraq and other oil-producing countries will remain vital issues for the US. However, a smaller oil import bill would cut the US goods trade deficit – petroleum has accounted for 44 per cent this year – and make it more resilient to shocks and supply disruptions in times of conflict. It could also curb the flow of revenues to unfriendly or undemocratic nations and chip away at the power of oil producers’ cartel Opec.

Edward Morse, a former US energy diplomat now global head of commodities research at Citigroup, the American bank, believes it will be possible for the US to cut imports from about 10m barrels per day to about 3m b/d by the early 2020s. All of its import demand could be met from [Canada](#) and Mexico. “The two vulnerabilities of the US as a global superpower have been its dependence on imported oil and its current account deficit,” he says. “Now it may be in the process of resolving both of those.”

For decades, talking about oil independence has been seen in the energy industry as a sign of failure to understand the scale of the challenge. Every US president since Richard Nixon has talked about curbing dependence on imports and each has failed to do much about it. But it no longer seems so far-fetched. As recently as 2007, the National Petroleum Council, an adviser to the US government with members from the industry, academia and environmental groups, concluded that it was “unrealistic in the foreseeable future” and suggested the best that could be hoped for was a slowing of the decline in US oil production.

Its most recent report, published in September, reiterated the scepticism about independence. However, it was much more optimistic about the potential for US oil output to grow. “It’s amazing how far we have come in just four short years. And we’re just seeing the beginning of it,” says Clay Bretches of Anadarko Petroleum, who worked on the NPC study.

In 1956, geologist M. King Hubbert, the originator of “peak oil” theory, predicted US production would hit a peak by the early 1970s and then go into decline. For three decades, it seemed he was right. Production peaked in 1971 and fell relentlessly for more than 30 years.

In 2009, however, US output started to grow again, led by offshore production in the Gulf of Mexico then onshore tight oil. Techniques such as those being used in North Dakota are being tried in tight oil reserves all over North America: in the Eagle Ford shale and Permian basin in Texas and the Utica shale in Ohio and Pennsylvania. IHS Cera forecasts that US tight oil production will rise from 900,000 b/d this year to 2.9m b/d in 2020 – roughly half today’s total US output.

Meanwhile, in the same period, Canada could double production from the Alberta oil sands to about 3m b/d, as improved production techniques turn a marginal, high-cost resource into a more profitable commercial proposition.

Canada, already a net exporter, overtook Saudi Arabia in 2004 to become the largest oil exporter to the US and its lead is set to grow.

In 2010, the US and Canada produced almost 10m b/d and consumed about 22.5m b/d. Given the right opportunities and incentives – and the access to closed areas such as America’s east and west coasts for which the oil industry is lobbying – by 2035, the two countries’ production could rise to 22m b/d, the NPC suggested. If demand could be held constant, that would cut North America’s shortfall to just 0.5m b/d.

Such a constraint on consumption certainly looks achievable. Many analysts believe the US, like other advanced economies, is entering the era of “peak demand”, in which oil use has risen as high as it will go. A slowdown in car use, tighter fuel economy standards for vehicles and greater use of ethanol, hybrids and electric vehicles are all helping to hold down demand. It is quite possible that 2007, when the US used an average of 20.7m b/d, will form a historic high.

Like predictions of rising supply, forecasts of falling demand could be wrong. Professor Timothy Mitchell of Columbia University warns that if rising North American production weakens political pressure for greater fuel efficiency, oil consumption could rise again. “America’s dependence on imports will continue to be the outcome of a mix of political and geological factors,” he says. Yet even if the most optimistic hopes are not fulfilled, one can imagine a future in which the US imports oil only from Canada, Mexico and a handful of other friendly countries, such as Brazil.

The significance of the specific source of oil imports is often overstated. As Prof William Nordhaus of Yale University has explained, the global oil market can be compared with a big bathtub into which all producers pour their fuel and from which all consumers draw. The world’s tanker fleets make oil a highly mobile commodity; and changes in supply, wherever they occur, affect all consumers. The fact that the US imported almost nothing from Libya did not save it from being hit by the rise in prices when Libyan production was taken off the market this year.

So even if the US one day imports oil only from Canada, it will still suffer when there are global supply shocks and price spikes. Production from the Middle East, and traffic through the straits of Hormuz in the Gulf and Malacca between Malaysia and Singapore, the choke points for world oil transport, will still be vital US strategic interests.

That said, the more the US can meet its needs domestically, the more it will be protected against the economic impact of rising prices. An oil shock would lead to a redistribution of income within the country but not to other countries. Similarly, it would be preferable to pay more to Canada, which has tight trading links with the US, than to some more remote economy. As Mr Yergin says: "This means a lot of dollars staying in the US and Canada that would otherwise have gone elsewhere."

Politically, too, if any nation is to benefit from rising oil revenues, the US would prefer Canada to, say, Iran.

Higher North American production would also help offset the power of Opec. Forecasts suggest Opec's share of world output could rise from about 40 per cent today to more than 50 per cent during the 2030s, as mature reserves in non-Opec countries are depleted. Stronger oil industries in the US and Canada could not strip the cartel of its influence but might create a deterrent to any attempt to hold prices too high.

Moreover, says Michael Levi of the Council on Foreign Relations, a New York-based think-tank, the global oil market's smooth functioning cannot always be relied on. In extremis, amid global conflict, a self-sufficient North America could shut itself off from the world oil trade altogether.

But the most powerful arguments against increased North American production are likely to be rooted in concerns about the environment. There are widespread moves to obstruct hydraulic fracturing and the planned Keystone XL pipeline, intended to take output from Canada's oil sands to refineries on the coast of Texas, has been the focus of weeks of protest.

Despite such objections, many Americans will find the prospect of greater energy independence seductive. At a time of economic weakness and concern that the US is falling behind China in influence, America's rise as an energy power is a reason to think its pre-eminence can survive.

"The notion that the US was a superpower in the 20th century but won't be in the 21st doesn't hold up so well now," Mr Morse says. "Compare it to a country such as China, which is going to be overwhelmingly dependent on energy imports. The US is in a much stronger position."