Energy: The indispensable country
By Ed Crooks and Anjli Raval

The US shale revolution has averted the threat of a global oil crisis caused by growing levels of conflict and instability.

In the sleepy farmland of south Texas, near the ghost town of Helena, the gleaming towers of ConocoPhillips' oil stabilisation plant are an incongruous sight.

Three years ago, there were only fields here but facilities have sprung up to handle the flood of oil pouring out of the Eagle Ford shale region south and east of San Antonio. These are exciting times in the US oil industry; the new plants are proof of that.

Prospects are bright here and in a few other countries including Canada. As the gush of crude from North America strengthened, analysts predicted it would send prices tumbling and open a new era of cheap fuel. It has not happened.

That is because the great advances in US shale have coincided with political upheaval in big oil-producing countries. Political instability in Libya, Iraq and Venezuela has stoked concerns about disruption and threats to future supplies. International sanctions on Iran have also reduced the global supply of oil, and Nigeria's industry is plagued by theft.

Were it not for the new production in the US, which has cut the country's imports sharply, there would probably be talk of another world oil crisis. As a global energy supplier, it is, in the words of Madeleine Albright, the former secretary of state, the "indispensable nation".

The rise of Eagle Ford has been spectacular. The advances in horizontal drilling and hydraulic fracturing, or "fracking", which were first used to extract natural gas from shale, have in the past four years been applied here to produce oil, with remarkable results. Eagle Ford produced just 15,000 barrels of crude oil per day in 2010, but 838,000 b/d in the first four months of this year, according to the Railroad Commission of Texas, the state regulator.

Along with the Bakken formation of North Dakota, Eagle Ford is one of the heartlands of the US oil revival that has been responsible for a rise of more than 60 per cent in the country's crude production since 2008.
“In the 1970s, the US reached what’s been called Peak Oil. But that peak was only for conventional oil,” says Greg Leveille, Conoco’s technical manager for so-called unconventional resources, which include shale. “If you look at the decline that we saw then, it was precipitous. And everybody expected it to continue. But now we have changed the trajectory of oil production in the US.”

Despite the boom in oil production here, Texans are not seeing much of a decline in fuel costs. The average price of petrol in Texas was $3.36 per US gallon last week, according to the US Energy Information Administration, as high as it was in the summer of 2011. Only in 2008, when US crude reached its record high of $147 a barrel, was fuel more expensive.

Every time they fill their tanks, Americans are reminded that oil is a global, not local, market.

Exports of crude from the US are tightly restricted under laws dating back to the energy crisis of the 1970s, when a ban was imposed to support price regulations. Exports of oil products such as petrol and diesel face no such restrictions, however, meaning that refiners can sell them at world prices. Brent, the global oil price benchmark, determines what US consumers pay, and over the past month it has had a turbulent time.

In June, Brent soared above $115 a barrel as militants from the Islamic State of Iraq and the Levant, known as Isis, seized control of much of Iraq and appeared to be on the verge of taking Baghdad, the capital. Iraq is the second-largest producer in Opec, the oil cartel, with output of about 3.3m b/d. The loss of Iraqi exports from world markets would send prices soaring.

Since then, the advance of Isis has appeared to stall and Iraq’s oil production has continued largely as before. The Kurdistan Regional Government, which is keen to export more crude, seized two oilfields near the northern city of Kirkuk and said it planned to protect the infrastructure there. As a result, market alarm over potential disruption to supplies from Iraq has eased. Brent dropped to just over $104 a barrel – a three month low – on Tuesday, giving back all of the gains it put on while Isis was sweeping through northern Iraq.

The notion that consumers can now relax about Iraq is dangerously complacent, however. Conditions remain volatile and the weakness of the country’s military forces suggests that the security of its oil exports is far from guaranteed.

Even if there is no immediate disruption, the latest bout of instability poses a long-term threat to Iraq’s production. The International Energy Agency, the watchdog, predicts that Iraq will be one of the largest contributors of increased oil supply over the next five years. It is expected to provide about 60 per cent of Opec’s capacity growth between now and 2019. To play that role, though, it needs sustained foreign investment to help develop its fields.

Ed Morse, global head of commodities research at Citi, argues that even though many foreign companies are now working in Iraq, the recent violence will make it more difficult to attract additional capital. This is despite the fact that the country’s reserves are large and increasing production is technically straightforward. “When Colombia became more secure, companies piled back in and production doubled. So [security] is impactful. It is a real deterrent,” he says.

The turmoil in Iraq would be less worrying if other countries were capable of increasing supply to fill any gaps. But global oil markets are already tight.

In Libya production has slumped and is only now beginning to pick back up after exports dropped by almost 90 per cent when rebels blockaded ports a year ago. The sanctions against Iran over its nuclear programme have cut its exports, and the crime afflicting Nigerian production shows little sign of abating.

Poppy Allonby, co-head of energy at BlackRock, the fund manager, says unplanned oil production outages have increased significantly in the past three years. “In the first five months of 2014, 3.8m b/d has been offline compared to an annual average of 850,000 b/d between 2008 and 2010,” she says. “Eighty per cent of the outages so far this year have come from Libya, Iran, Syria, Iraq and Nigeria, and as such are linked to regional instability and security.”

In the past 15 years, security has become an increasingly serious problem for oil companies around the world, according to Andrew Gould, former chief executive of Schlumberger, the oil services company, and now chairman of BG Group.

Before 2001, Schlumberger undertook security measures in only two countries, Colombia and Nigeria, he told a Financial Times conference in May. Today, the company has to conduct security operations in at least 20 countries.

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“I personally feel that at the moment the forecasting agencies and the analysts are seriously underestimating the potential for disruption, even within Opec, over the next year or so,” he says.

In its most recent oil market report this month, the IEA made a similar point, warning that “Opec supply risk remains high”.

Those fears were underlined in the case of Libya by the US state department, which issued a statement at the weekend saying that Washington was “deeply concerned by the ongoing violence in Libya and dangerous posturing that could lead to widespread conflict there”. Although Libya’s oil production has been coming back on stream and exports are expected to resume, the risk of further disruption remains high.

Many countries in the Middle East and Africa that have more favourable geology than the US, meaning that their oil is physically more accessible, says Amrita Sen of Energy Aspects, a consultancy in London, but security has been their Achilles heel.

“You’ve seen a whole bunch of these countries, such as Iraq, that have opened up in recent years as they needed the oil revenues. But these countries have not been able to guarantee safety,” she says.

Oil production in some mature areas, such as the North Sea off the British coast is in steep decline. Worldwide, many oil companies are suffering from diminishing returns on their capital as soaring costs have squeezed profitability.

A study by analysts at Barclays last month found that spending by oil companies worldwide on exploration was set to rise about 6 per cent this year to $712bn. However, the big international oil groups from the US and Europe, including ExxonMobil, Royal Dutch Shell and Total, have been reporting falling rates of return on their investments. In response to pressure from their shareholders, the groups are cutting back slightly this year. The Barclays analysts argue that this “period of under-investment will lead to a period of underproduction and could drive a structural leg-up in international oil prices”.

Shale production in the US is a relatively high-cost resource because of the effort needed to get the oil out of the ground. But companies have been managing to bring those costs down and investment is still rising.

Mr Gould argues that although shale resources are “somewhat poor and uncertain”, investing in the US still “looks highly attractive”. Ms Allonby says that even though the increase in US production has been the result of private companies’ attempts to maximise profits rather than a strategic decision by the government, as it would be for, say, Saudi Arabia, it has had a similar effect in balancing out losses to production in other countries and stabilising prices.

“Given the amount of oil offline, the oil price would likely be a lot higher were it not for the US,” she says.

From 2005 to 2013, all of the net increase in world crude production was provided by the US.

The outlook for oil prices is always unpredictable, and an event such as a sharp economic slowdown in China could send them lower for a while. In the long term, though, demand for oil in emerging economies is only going to grow, putting pressure on supplies and forcing prices higher.

Without increasing US output, the strain would be immense. The shale revolution has had a dramatic impact already. Oil consumers everywhere will hope that it can continue.

Policy liberalisation: The struggle to export American resources

Although US law allows minimal exports of unrefined crude oil, much of the country’s additional output is being shipped in the form of refined products such as diesel and heavy fuel oil, writes Ed Crooks. The great uncertainty facing the US industry is what will happen if crude production keeps rising to the point that its refining capacity – in particular, capacity for processing the light and sweet oil that comes from shale – is reached.

Oil producers are worried about the threat of a glut of crude onshore in the US, which would drive down domestic oil prices relative to internationally traded Brent.

One response has been for US refiners to invest in increased capacity to handle the extra oil, including specialised facilities known as splitters that process it just enough to meet the regulator’s definitions of products that are eligible for export.

Last month, two companies revealed they had been testing the boundaries of those definitions.
Pioneer Natural Resources and Enterprise Products Partners said they had been given permission by the US commerce department to export condensate, an ultralight form of oil, which had received only minimal processing, passing through a stabiliser tower to remove the most volatile components.

Politically, crude oil exports are a tough sell for any administration. Edward Markey, a Democratic senator from Massachusetts who has been arguing against liberalisation, puts the case in clear, populist terms. “We should keep our resources here at home for American families and businesses,” he says, “not send this oil abroad even as we import oil from dangerous regions of the world.”

Even so, there is growing pressure from oil producers for further relaxation of the rules and many analysts now expect the administration to ease the restrictions gradually.

Paul Sankey from Wolfe Research expects incremental moves towards full liberalisation of crude exports, “either explicit or de facto”, by 2017.

Lifting the ban would have more of an effect on the differentials between types of crude than for prices overall. The shale boom in the US has already had a big impact on world markets because of the increase in product exports and the reduction in crude imports.

The most significant impact of liberalisation is likely to be on North American oil producers, which will receive higher prices for their output, helping them invest more and keeping the boom going.

Allowing unrestricted crude exports could add about 1.2m barrels per day to US production over 2016-30, an increase of about 14 per cent from today’s levels, according to IHS, a research group.

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