Traders Watch Oil Chokepoints As Geopolitical Risk Soars

By Alan Mammoser - Jun 01, 2016, 5:29 PM CDT

News reports appearing Sunday, of an attack on Shell and Agip pipelines in Nigeria, indicated that ongoing attacks by militant groups have caused that country's oil production to fall by half. Meanwhile, memories are still fresh of a flare-up between Azerbaijan and Armenia in April, which directly threatened pipelines to Turkey and Europe. These flashpoints on the peripheries of the Middle East show the enormous geographic spread of security-related supply disruptions.

"We are seeing at the moment that oil prices have risen about 80 percent in three months, admittedly from very low levels, due to supply disruptions in Nigeria, Libya, Canada and Venezuela," says Robin Mills, head of Qamar Energy in Dubai. "It's clear that a further disruption in the Middle East would add to volatility in prices. The big question is how much and how quickly US shale production could respond to cap a price rise," he adds.

Mills, a non-resident fellow at the Brookings Doha Center, authored a recent report in which he asserts that Europe, Japan, China and India remain highly vulnerable to energy supply disruptions. And the Middle East's security problems will continue to impact them. Still, he puts the MENA region into global perspective.

"We are more vulnerable now to a Middle East supply disruption because of very low levels of OPEC spare capacity, and because of high levels of instability across several Middle East/North Africa oil exporting or transit countries," Mills says. "On the other hand," he continues, "the world as a whole is less vulnerable because of high levels of inventories, and the potential for US shale to increase output quickly."

Mills' report, "Risky Routes: Energy Transit in the Middle East," published last month by Brookings, charts the whole spectrum of risk, from a temporary diminution of supply due to a crisis in one or a few countries, to a major disruption because of the closing of a key chokepoint. It provides a kind of geography showing the region's main shipping routes and pipelines and attendant threats. It also provides a few helpful estimates of the potential impacts of supply disruptions on the cost of oil and gas delivery.

Recent terror attacks on energy infrastructure have occurred in Turkey, Yemen, Egypt's Sinai, Libya, and Algeria, most notably the Ain Amenas attack which shut

down a major gas processing facility in 2013. Even Saudi Arabia and Iran are vulnerable to internal terror, and to cyber attack as the recent attack on Saudi Aramco makes clear.

Sporadic attacks become more serious when entire areas are taken over. This is most apparent in Syria and northern Iraq, where the takeover by ISIS has rendered the Kirkuk to Ceyhan (Turkey) pipeline completely non-operational since 2014. Of course entire countries have been shut down, as occurred with the Libyan revolution in 2011, and the invasion of Kuwait in 1990.

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Not only countries, but entire regions face disruptions, most notably at the Strait of Hormuz which accommodates the world's greatest flow of oil and LNG. Major chokepoints - key geographically constrained spots - include Hormuz, the Suez Canal, the Bosporus and the Straits of Malacca, among others. The outstanding example of a threat to Hormuz is the 1987 "Tanker War" between Iraq and Iran. Mills points to continuing threatening pronouncements against the Strait by some in the Iranian regime, and refers to studies of the Iranian capacity to at least temporarily close it.

Elsewhere, there is ongoing danger of serious unrest in Egypt, or blockage of the Bab el-Mandab at the entrance to the Red Sea, which could lead to simultaneous disruption of Suez and the SUMED pipeline. Blockage here, or at the Strait of Malacca, would greatly add time and cost to shipping to Europe and the Far East.

The report makes clear that all of these threats can be overcome. Even the Strait of Hormuz cannot be completely blocked, since it is too wide and deep. In other cases, shipping can be rerouted. And given time and the deployment of existing infrastructure, disruptions can be gradually alleviated. A blockage to Suez can be made up with increased flows of natural gas from Russia and North Africa (where three major pipelines currently convey gas to Europe, with another under construction). And countries can draw upon their strategic reserves to stabilize temporary imbalances and price swings.

Still, disruptions impose considerable costs on both exporters and importers, and leave lingering cost effects that raise prices. All of the current bypass infrastructure is limited and needs to be expanded. As the author writes in regard to a Gulf disruption's effect on the LNG market, "Europe could make up its losses from Russia, but elsewhere the loss of Gulf LNG exports would be impossible to replace from other sources. It would also further exacerbate the loss of oil exports, as many countries would seek to substitute LNG with oil. Such a disruption would be more severe if it occurred during the Northern Hemisphere's high-demand winter period." (Risky Routes, p. 16)

The markets saw immediate oil price impacts of the Libyan revolution in 2011, and the invasion of Kuwait in 1990. But lingering cost effects include the ongoing risk premiums that follow disruptive events. For example, Mills estimates that a major threat in the Persian Gulf would increase insurance premiums for war risk, adding $1 per barrel to the delivered cost of the oil (calculated as 2% of the value of a large vessel's cargo). A similar threat would add even more to the price of LNG.

Of course, building new bypass infrastructure to get around the Strait, or enhancing existing infrastructure, will also add to cost. Should intense fighting in the Gulf occur, pipelines are in place to at least partially get around it, Saudi Arabia's Petroline pipeline to the Red Sea being the primary one. But this pipeline would need a significant upgrade to handle the country's current export levels. Mills estimates that making this upgrade could add $1 cost per barrel.

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Mills presents an interesting approach to estimating the value of infrastructure upgrades to the countries involved. It's a type of cost-benefit analysis in which discounted cost over a 20-year horizon is compared to the earnings (or losses that would not occur) with the upgraded infrastructure in place. The approach allows a direct comparison of different projects. It also opens the question of whether importing countries should help to pay for such infrastructure, and Mills holds that they should. But this underlines the critical importance of institutional arrangements to ensure the effectiveness of bypass infrastructure.

Mills suggests a three-legged approach, with infrastructure, institutional arrangements and markets all playing an equal role. Infrastructure is obviously necessary to bypass areas of supply disruption. But it can only work effectively if proper institutional arrangements are in place, especially international agreements because the infrastructure is usually trans-boundary or it requires the support of multiple countries. In regard to markets, he makes the point that any arrangements to mitigate disruptions should not hamper free market responses to the same disruptions.

Mills believes that supply and therefore price instability will be with us for long time to come. Solving the problem requires diversifying routes through new infrastructure. But equally, it requires the buildup of more diplomatic and institutional support for these routes. Whether this can occur is uncertain.

"I think it depends on how severe the threat is perceived to be," Mills says. "There are some serious discussions between at least some GCC members. But I argue in my report that the institutions need to be stronger and this should be done more proactively."

By Alan Mammoser for Oilprice.com

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