

Economics

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Saudi Arabia Macro View

Oil Supply Security is High

- Investor anxiety over the turmoil in the Middle East is increasingly turning to the question of the security of global oil supply, first with the spread of violent demonstrations to Bahrain, the first such incident in the oil-rich Gulf Cooperation Council (GCC), then with the closure of a large part of Libya's 1.6 million barrel per day (mbpd) output.
- We believe there are four factors that mitigate the risk of a disruption to Saudi oil production in any reasonable scenario: (i) private and public security around the oil facilities is very high; (ii) the geographical spread of the facilities is wide; (iii) the ability to divert production at the flick of a switch should an individual facility become disrupted; and (iv) a relatively small number of production staff are non-Saudi (10%).

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Oil Supply Security is High

Investor anxiety over the turmoil in the Middle East is increasingly turning to the question of the security of global oil supply, first with the spread of violent demonstrations to Bahrain, the first such incident in the oil-rich Gulf Co-operation Council (GCC), then with the closure of a large part of Libya's 1.6 million barrel per day (mbpd) output. As we had expected, Saudi Arabia, the world's most significant oil producer, stepped in at the end of last week to confirm that, along with its OPEC partners, it is able and willing to increase production to compensate for declines in Libya. Markets reacted positively to this news, with oil falling back slightly by the end of the week.

An attack on the Baiji oil facility in northern Iraq over the weekend is likely to raise fresh concerns over the security of oil supplies from the Middle East. Added to that, protests that have left up to six people dead in the Omani industrial city of Sohar, thus fears are rising over the security of supplies from the world's oil producer of last resort. We believe that Saudi oil production is unlikely to be disrupted in any reasonable scenario for the following reasons:

- Private and public security around the oil facilities is very high;
- The geographical spread of the facilities is wide;
- The ability to divert production at the flick of a switch should an individual facility become disrupted; and
- A relatively small number of production staff are non-Saudi (10%).

Security around the facilities is high

The question of security around oil production facilities has been high on the Saudi agenda since at least 2004, when Osama bin Laden and his lieutenant, Ayman al Zawahiri, encouraged Islamic militants to attack these. In 2006, an attempted suicide bombing of the Abqaiq facility in eastern Saudi Arabia was repelled successfully, revealing the efficacy of security measures, such as electric fencing, multiple perimeters, advanced surveillance technology and heavily-armed security. Since that time, Saudi intelligence has been successful on several occasion of foiling planned attacks on oil facilities, most recently in March 2010 when over 100 suspected Al-Qaeda militants were arrested while planning a series of suicide attacks, including on Saudi oil infrastructure.

In 2007, Saudi Arabia announced the creation of a special Facilities Security Force (FSF) for its oil facilities, a corps of 35,000 troops specifically trained to protect installations. During that year, 9,000 personnel were trained and deployed, while a further 8,000 per year were to be added until the force reached full capacity. While the force is not yet at full capacity, Major General Mansour al Turki, a senior spokesman for the Ministry of Interior, told the press earlier this year that numbers were sufficiently deployed to provide full protection of the oil facilities.

In addition to this force, the Saudi national army has regular deployments to protect oil production sites, and Saudi Aramco, the Saudi state oil producer, has substantial private security, particularly for its staff. In short, the Saudi government is alert to the risk of attacks on its critical infrastructure, and has devoted substantial resources to its protection.

Oil & gas spread over an area larger than the UK

Unlike in certain other countries, the oil fields and installations of Saudi Arabia are spread over a wide area. Indeed, in the Kingdom's eastern provinces, this is in an area of approximately 280,000 square kilometres, considerably greater than the entire land area of the UK and Northern Ireland. The ability to cause damage to substantial parts of the network, putting to one side the heavy security at individual facilities, is thus considerably complicated by the significant logistical challenge.

Figure 1. Oil & gas fields dispersed across thousands of kilometres



Source: US Energy Information Agency (EIA)

Spare capacity enhances supply security

According to Saudi officials, potential output in the Kingdom is 12.5 mbpd, while production last year averaged around 8.5 mbpd. Some of the 4 mbpd spare capacity will be taken up to compensate for the loss of production in Libya. But even if Saudi increases production to compensate for Libyan exports in their entirety, this would still leave Saudi with almost 3.5 mbpd in spare capacity.

The spare capacity provides Saudi Arabia with considerable defence against a disruption to parts of its oil & gas network. Should one facility experience a disruption to supply, others can be brought online to replace the lost output.

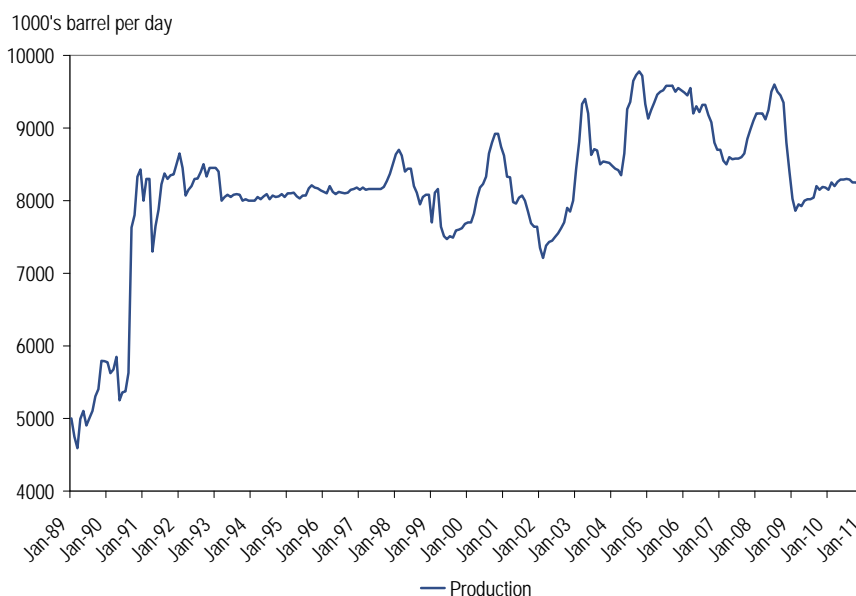
The supply management process is technologically advanced and centrally controlled from Aramco headquarters. In Aramco's secure compound in Dhahran, a state-of-the-art computerised supply chain control room allows engineers to monitor the Kingdom's production and distribution network around the clock, from oil well, to refinery, to tanker. Engineers are able to spot any disruptions in real time, shut well heads, open others, and divert production or distribution at the flick of a switch.

Less than 10% of staff are non-Saudi

The production facilities in Libya were shut down mainly because foreign oil companies withdrew their foreign staff. Saudi Arabia is not vulnerable to such a scenario, as less than 10% of Aramco staff are foreign, according to the company's CEO. Saudi nationals fill the ranks at every level, from oil workers in the field to engineers and senior management.

Experience from the recent past show the resilience of production to outflows of foreign workers. The Iraqi invasion of Kuwait in 1991, the Khobar bombing in 1996 (killing 119 US servicemen) and a series of deadly terrorist attacks against foreigners in 2003/04 had no impact on oil production, despite the temporary outflow of large numbers of foreigners during each event.

Figure 2. Saudi production resilient to challenges in recent past



Source: Bloomberg

Appendix A-1

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