

All 17 Sectors



All 37 Countries



Keywords (optional)

Search

The fall in oil prices brings fresh attention to the world's largest oil exporter, Saudi Arabia

[Saudi Arabia](#) | [Energy](#)

Overview

Text size

[View in online reader](#)

Recommend



The drop in global oil prices in the second half of 2014 thrust Saudi Arabia's energy sector into the spotlight, but the consequences for the Kingdom vary significantly depending on whether they are measured in terms of production, price or perception.

Production

Viewed purely in terms of barrels of crude oil produced, Saudi Arabia has steered a very steady course through volatile conditions in the last three years, with figures from the Joint Organisations Data Initiative (JODI) suggesting average output of 9.71m barrels per day (bpd) in 2014, compared to 9.63m in 2013 and 9.76m in 2012. However, the Kingdom has increased production in 2015, with its output having climbed above 10m bpd to reach 10.3m bpd in March, according to JODI.

Register for free
Economic News
Updates on Saudi
Arabia

Register for updates

Related Content

Featured Sectors in Saudi
Arabia

Price

The narrative is very different when measured by price. On June 17, 2014, as Islamic State militants closed in on Iraq’s largest oil refinery at Baiji, Brent crude reached its peak for the year of \$114 a barrel. By January 12, 2015 Brent was trading for \$47.36 a barrel – a fall of 58.5% in under seven months – to its lowest level since early 2009. A report by the World Bank in January 2015 described this price decline as a “significant event” ranking alongside five similar episodes in the past 30 years. The report drew a parallel with 1985-86, when a period of high oil prices dating back to the 1970s coincided with technological advances, making the recovery of oil from the North Sea and Alaska both feasible and economically attractive. The causes in 2014 were similar: the World Bank cited increased production of US shale, which exceeded expectations by 0.9m bpd, combined with a fall in global demand that was 0.8m bpd below estimates. The report also noted that at OPEC’s November 2014 meeting, the member states “failed to agree on production cuts”. Part of the reason for Saudi Arabia’s decision to maintain production levels despite the price fall, many have suggested, is to maintain market share and price out high-cost producers such as those in the US shale oil industry (see analysis).

Perception

It was this change in OPEC policy that signalled a significant shift in the perception of Saudi Arabia’s role in global price control, according to the World Bank. By maintaining OPEC production at 30m bpd in the face of sharply falling global crude oil prices, the organisation’s biggest member, Saudi Arabia, signalled that it was no longer prepared to play the role of swing producer, raising and lowering its own output to keep global oil prices steady in response to fluctuations in supply and demand. The decision to relinquish this role after more than 40 years as swing producer prompted commentators and economists to ask if the fall in prices in 2014 represented a cyclical decline or a more fundamental structural change in the value of crude oil as a commodity.

Restructuring

Alongside oil prices, the other major story of the year was the restructuring of Saudi Aramco. Until recently,

Arabia:	
Saudi Arabia Energy	➤
Saudi Arabia Industry	➤
Saudi Arabia Construction	➤
Saudi Arabia ICT	➤
Saudi Arabia Transport	➤
Featured Countries in Energy:	
Indonesia Energy	➤
Qatar Energy	➤
UAE: Abu Dhabi Energy	➤
Ghana Energy	➤
South Africa Energy	➤

the minister of petroleum always served as chairman of the state-owned oil company. In April 2015, however, King Salman decided to split Saudi Aramco from the ministry, setting up a Supreme Council of 10 members to oversee the firm, including the ministers of oil, finance and the economy as well as the governor of the central bank. Ali Al Naimi was replaced as chairman by Khalid Al Falih, who left his role as president and CEO of Aramco to become the minister of health, though he remains active in the company in his capacity as chairman. The role of the Ministry of Petroleum is now focused more on policy and domestic regulation, including areas such as energy efficiency and allocation of natural gas.



 **شركة توزيع الغاز الطبيعي**
Natural Gas Distribution Company

The first and leading natural gas distribution company in Kingdom of Saudi Arabia.

Clean & Safe Energy

Natural Gas Distribution Company
Address: P.O. Box 512 Riyadh 11383 Kingdom of Saudi Arabia Riyadh
T: +966-1-4982629 | F: +966-1-4982630
Email: info@ngdc.com.sa
Website: www.ngdc.com.sa

  

Historical Perspective

The government minister who represented Saudi Arabia at the November OPEC talks is uniquely placed to take the long-term view. The minister of petroleum and mineral resources, Ali Al Naimi, was three years old when the California Arabian Standard Oil Company (CASOC), a subsidiary of Standard Oil of California, made its first significant oil discovery at the Dammam No. 7 well in Dhahran in 1938. In 1944 CASOC became Arabian American Oil Company, or Aramco, an oil business owned 50:50 by CASOC and Texas Oil Company (now

Chevron). From the 1930s to the 1970s, the US was the crude oil swing producer, with global oil prices set by the Railroad Commission of Texas.

However, when OPEC was formed in 1973, Saudi Arabia assumed the role of swing producer. At the same time, the Kingdom increased its stake in Aramco, buying 25% in 1973, 60% in 1974 and gaining complete ownership of the company in 1980. Four years later, Al Naimi became president of the company he had joined straight from university, which by then had been renamed Saudi Aramco. In December 2010, Al Naimi took the leading role at the Ministry of Petroleum and Mineral Resources (MPMR). Saudi Arabia's policymakers are thus able to draw on a wealth of firsthand experience of global oil markets and management of the Kingdom's hydrocarbons resources when faced with price volatility.

Future Vision

Although Saudi Aramco does not publish financial statements, its annual review for 2014, which was released in May 2015, gives details of the company's achievements in production and its future strategy. Its stated vision for 2020 is to become "the world's leading integrated energy and chemicals company" and it also sees itself as playing a broader role in "facilitating the sustainable and diversified expansion of the Kingdom's economy".

These are the stated aims of a corporation that has expanded far beyond the crude oil producer founded in the 1930s. The nature of Saudi Aramco's diversified business model may also explain the country's willingness to drop the swing producer function. Its 2014 annual review states, "We intend to go beyond leading in size and scale to achieving excellence in every aspect of our upstream operations. This means innovating and applying leading-edge technologies in exploration and reservoir management to discover new fields and increase recovery in our producing fields." The review adds that the company intends to "substantially increase our gas production", in which unconventional gas will make a "significant contribution". Another pillar of its plan is to "integrate our business across the hydrocarbon value chain". Its strategy includes many projections for energy trends and macro-economic fundamentals through 2040, indicating a clear focus on the long term.

The increased complexity of Saudi Aramco's business model also sets it at odds with its traditional role as

swing producer of crude oil. In the past, raising or lowering crude oil production was somewhat akin to opening or closing a single tap. Now, however, the complex Saudi Aramco machine uses more like dozens of valves to feed multiple downstream needs at power plants, petrochemical works and refineries. Industry experts point out that any reduction in crude oil production could have an impact on a diverse range of Saudi industries and economic activities.

Oil Reserves

Whether it is referred to as the swing producer or not, Saudi Arabia's proven oil reserves of 269.5bn barrels constituted 15.8% of the world's total at the end of 2013, according to BP's "Statistical Review of World Energy 2014". Only Venezuela, with 17.7%, accounted for a higher share of global reserves. Canada ranked third with 10.3%, followed by Iran (9.3%), Iraq (8.9%), Kuwait (6%) and the UAE (5.8%).

The size of Saudi Arabia's reserves has fallen by just 1.7% since the end of 1993, when it counted 261.4bn barrels, as new discoveries in the last two decades have largely made up for any increased consumption. The MPMR puts the decline rate of the Kingdom's oilfields at no more than 2%. Saudi Aramco has indicated it will compensate for the natural declines in mature fields by conducting more drilling at existing fields.

The scale of Saudi Arabia's oil reserves, and the ease with which it is able to access them, can be demonstrated by comparing its biggest oilfield to total reserves in other oil-producing nations. According to the US Energy Information Administration (EIA), the Ghawar field has estimated reserves of 75bn barrels, compared to 93bn barrels in the entire Russian Federation and 44.2bn barrels in the US. Ghawar is one of the eight fields in the north-east of the Kingdom that account for more than half of the country's reserves. The country has 121 oil and gas fields, including three new oilfields and two new gas fields, according to Saudi Aramco's 2013 review. Saudi Arabia's reserves include 2.5bn barrels in the Neutral Zone shared evenly between the Kingdom and Kuwait.

Saudi Arabia's onshore fields generally produce lighter grades, while medium and heavy grades are found offshore. Currently 70% of the country's output is considered to be light gravity, and the Kingdom is moving to increase that proportion. Light-gravity crude produces a higher proportion of petrol and diesel when refined than heavier grades do. There are relatively high levels of sulphur in all but Saudi Arabia's Extra Light and

Super Light crude types, meaning that most of its output is considered sour.

Oil Production

National oil production figures published in BP's "Statistical Review of World Energy", on the JODI database and by the EIA give different numbers for Saudi Arabia's daily crude oil output and so assign the Kingdom different places in their rankings of the world's top three producers.

All three bodies report a modest fall in production in 2013 compared to 2012. For BP, total production including condensates and natural gas liquids (NGLs) was 11.53m bpd in 2013, down from 11.64m in 2012. According to BP, Saudi Arabia was the world's biggest crude oil producer in 2013, with Russia placing second at 10.79m bpd, up from 10.64m in 2012, and the US placing third in both 2012 and 2013 with production of 8.89m and 10m bpd, respectively. For the EIA, Saudi Arabia was the world's top producer in 2012, with production of 11.84m bpd, compared to 11.12m in US and 10.60m in Russia, but by 2013 EIA figures show the US was the world's top producer at 12.34m bpd, ahead of Saudi Arabia (11.7m) and Russia (10.76m). For JODI, however, which includes lease condensate but excludes NGLs, Russia has been the world's top oil producer for the last three years, with Saudi Arabia and the US ranking second and third, respectively, each year. JODI figures show that Russia produced a total of 9.95m bpd in 2012, 10.05m in 2013 and 10.09m in 2014, compared to Saudi Arabia's 9.77m bpd in 2012, 9.61m in 2013 and 9.71m in 2014. Total production in the US, according to statistics from JODI, has increased from 6.46m bpd in 2012 to 7.45m in 2013 and 8.63m in 2014.

According to Saudi Aramco's own figures, the company produced 9.41m bpd in 2013, down fractionally from 9.51m bpd in 2012. Its total output for 2013 was 3.43bn barrels, down from 3.48bn in 2012. It says its maximum sustainable daily capacity is 12m barrels. Saudi Aramco operates the Khafji field in the Neutral Zone between Saudi Arabia and Kuwait, which currently produces 300,000 bpd, according to the EIA. Saudi Arabian Chevron and Kuwait Gulf Oil Company manage four other fields in the Neutral Zone.

Oil Exports

Although Saudi Arabia is the largest oil exporter in the world, its exports by volume fell by 5.7% in 2014 despite the decline in oil prices, according to the EIA. JODI data published in February 2015 showed the

Kingdom's crude oil shipments averaged 7.11m bpd in 2014, down from an 11-year high of 7.54m bpd in 2013. In December 2014 exports dropped by 5% on the previous month to 6.9m bpd.

Asian Demand

The figures coincided with declining demand in East Asia in general and particularly in China, which revised its GDP growth forecast for 2015 down to 7%. In 2014 China grew by 7.4%, missing its 7.5% target and registering its slowest annual growth in 24 years. In January 2015 China National Petroleum Corporation's Economic and Technology Research Institute predicted growth of 3% in oil and gas consumption in the country in 2015, down from 3.3% growth in 2014, and anticipated further declines in demand in the future. In February 2015 China reported a 19.7% slump in all imports for January 2015 compared to the same month a year before, and a 37.6% fall in imports of refined oil products.

However, a Thomson Reuters report from February 2015 showed a 13% uptick in Saudi Arabia's exports to China for January compared to December, claiming the Kingdom was selling its crude oil to China at substantial discounts in an effort to retain market share. The report stated that Saudi Aramco cut 90 cents off the March official selling price for its Arab Light crude to Asia, creating a discount of \$2.30 per barrel to the Oman/Dubai average – the biggest seen since it began compiling data in 2003. "Saudi Arabia is one of the main suppliers of crude oil to China, neck and neck with Russia. Recent trends show higher imports from Russia as the commodity is traded in yuan between the two countries, as opposed to the US dollars preferred by Saudi Arabia," Mohammad S Alshammari, CEO and president of Yanbu Aramco Sinopec Refining Company (YASREF), told OBG.

The importance of the Asian market is demonstrated by Saudi Aramco's figures for 2013, when Asia accounted for 53.5% of the company's crude oil exports, 46.6% of its refined product exports and 27.9% of its NGL sales. The EIA, citing figures from Global Trade Information Services (GTIS), a research firm, suggests Asia received 68% of Saudi crude oil exports in 2013, although the US is the single biggest importing country, accounting for 1.5m bpd in the first quarter of 2014 and 17.1% of total exports, according to Saudi Aramco. The EIA says GTIS figures show Japan, China and South Korea imported 1.2m, 1.1m and 0.9m bpd, respectively, from Saudi Arabia in 2013, while India imported 0.8m bpd.

Gas Production

Though Saudi Arabia has no plans to export it, natural gas does occupy a significant place in the nation's current energy mix and in plans for expansion. At the World Economic Forum held in Davos in January 2015, Saudi Aramco's then-president and CEO, Khalid Al Falih, said, "We're investing big in gas, which will not only provide prosperity for the Kingdom and help us meet the energy demand of a prosperous population that is growing, it will also displace liquids, which will become available for export."

According to BP data, Saudi Arabia has 290.8trn cu feet of natural gas reserves, or 4.4% of the global total, which is the sixth-largest amount in the world. In its annual report for 2013, Saudi Aramco reported significant progress on Karan, the Kingdom's first non-associated offshore gas field, and that two new gas fields were discovered at Turayqa in Rub Al Khali and at Mihwaz in central Saudi Arabia. The company's unconventional gas programme also became operational for the first time in 2013, in line with Saudi Aramco's efforts to grow this part of its business.

According to BP figures for 2013, Saudi Arabia has the world's second-highest reserves-to-production ratio at 79.9, suggesting significant future potential. This is further underlined by the 58% growth in Saudi Arabia's stated reserves of natural gas over the last two decades, from 183.6trn cu feet at the end of 1993 to 290.8trn cu feet at the end of 2013. Over the same period, gas output increased by 71%, from 2.12trn cu feet in 1993 to 3.64trn cu feet in 2013. Production figures in 2013 were up 4% on the previous year. "Increasing drilling activity in both oil and gas is essential to sustain the Kingdom's MSC for oil and to provide the industrial and power generation needs for gas," Yusof Rafie, former chairman of the Industrialisation & Energy Services Company, or TAQA, told OBG.

Domestic demand for natural gas is also rising rapidly. "Natural gas demand is continuously increasing as more industrial companies are attracted to use it as fuel as it is clean, safe and cost-effective. Hence, it contributes to the sustainable economic development of the Kingdom of Saudi Arabia," Khalid Al Rubayan, general manager of Natural Gas Distribution Company, told OBG.

Processing & Refining

Saudi Aramco operates the world's largest oil processing and crude stabilisation facility at Abqaiq, with a daily capacity of 7m bpd, according to the EIA. The Abqaiq plant is connected by a network of pipelines to the ports of Ras Al Jumaymah, Ras Tanura and Yanbu, which handles its NGLs. The company and its subsidiaries also have equity interests in refineries both in the Kingdom and overseas. These have a total worldwide refining capacity of 4.9m bpd, of which the company's equity share is 2.6m bpd. In 2013 Saudi Aramco produced 494m barrels of refined products and exported just under a quarter of that amount, or 121m barrels.

As part of its Accelerated Transformation Programme, Saudi Aramco is diversifying by investing in downstream activities like power generation and petrochemicals manufacturing, and is also aiming to shift the focus of its existing refineries towards higher-margin products. In partnership with the Dow Chemical Company, Saudi Aramco created Sadara, which it says is the largest chemical complex ever built in one phase, with 26 plants capable of producing 3m tonnes of products a year. In a joint venture with Sumitomo Chemical, Saudi Aramco runs the Petro Rabigh facility, which uses 400,000 bpd of crude oil and 1.2m tonnes per year of ethane as primary feedstock to produce refined petroleum products and petrochemicals. "The investment climate for the downstream sector in Saudi Arabia is highly attractive given the competitive financing, the strong infrastructure, cost of land and utilities, free Arab trade Customs duties, a strategic location between Europe and Asia, and a still competitively priced and reliable supply of feedstock," Jamal Malaikah, president and COO of NATPET, a domestic petrochemicals producer, told OBG. In a similar vein, Alshammari of YASREF told OBG, "There are sizeable downstream investment opportunities to be seized by foreign investors in the Kingdom. However, these mainly concern the maintenance and rehabilitation of existing assets."

ENERGY CONSUMPTION: Saudi Arabia has one of the highest per capita energy consumption rates in the world. According to BP figures, 3.08m bpd of oil was consumed in the Kingdom in 2013, a 3.1% increase on 2012. A country with a population of 30m people is therefore consuming more oil than Brazil, a country of 203m people, and only fractionally less than the Russian Federation, a country of 142m, which consumed 3.31m bpd in 2013. Even at a time of falling oil prices, such high domestic consumption represents a significant opportunity cost: better energy efficiency would enable the country to export more of this fuel. In its 2013 annual report, Saudi Aramco said it is working to encourage greater energy efficiency, with the aim of reducing domestic energy demand by 2.4m bpd by 2030. This is an ambitious target, given that oil consumption increased by 1.3m bpd between 2003 and 2013, according to BP figures.

Energy Productivity

In addition to transforming the Kingdom's record on energy efficiency, there is the long-term challenge of improving its energy productivity, which would boost both prosperity and employment in Saudi Arabia. Energy productivity is defined as the GDP countries produce for every unit of energy they consume. To increase energy productivity, a country must produce more goods or services with the same energy input, whereas to increase energy efficiency it must produce the same amount of goods and services with less energy input. According to the Philips Energy Productivity Index for 2015, Saudi Arabia ranked 28th in the world, producing €181bn of GDP for each exajoule of energy consumed. Hong Kong came first with €456bn per exajoule, while the US came in 38th place with a world average score of €143bn per exajoule.

The report's authors say the best performers in the study were the countries that have moved furthest away from energy-dependent industry and towards a service-driven economy, such as Hong Kong (ranked first), Switzerland (fourth) and the UK (11th). Germany, ranked 17th, is described as having improved its industries' energy productivity by adopting strict environmental standards to lower energy costs, thereby making its companies more competitive.

Outlook

In the short to medium term, though, the focus in Saudi Arabia's energy sector is on maintaining and improving production of oil and natural gas, and on selling oil for the best price in international markets. "We're balancing the short term with the long term," said Al Falih in his January 2015 address to the World Economic Forum. "We're using the downturn as an opportunity to sharpen our fiscal discipline, so we're cutting a few things that we can cut, but we are as committed as ever to our long-term strategy."

See also:

[China](#), [World Economic Forum](#), [National Petroleum Corporation](#), [World Bank](#), [India](#), [Russian Federation](#), [GDP](#), [BP](#)

[Request reuse or reprint of article](#)

Chapter overview

[View the Energy chapter overview, from The Report: Saudi Arabia 2015](#)

Next article from this chapter and report

[Saudi Arabia investing in a range of upstream and downstream areas](#)

[Read previous](#)

[Read next](#)

Articles from this chapter

[This chapter includes the following articles.](#)

[Saudi Arabia investing in a range of upstream and downstream areas](#)

[From refining to associated gas, Saudi Arabia's product offerings thrive](#)

[Research has led to a range of alternative technologies and solutions](#)

[Saudi Arabia, OPEC's largest oil producer, keeps on pumping](#)



The Report

[Saudi Arabia 2015](#)

This article is from the Energy chapter of The Report: Saudi Arabia 2015. Explore other chapters from this report.

[Explore Report](#)

Popular Countries

General



© OXFORD BUSINESS GROUP 2016