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Oil Market Prospects and Tensions in the Gulf

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On February 21, the OPEC basket price reached $119.20, a seven percent rise since the beginning of 2012. This was the result of increasing anxiety about the probability of supply disruption due to the tensions with Iran. With just over five percent of global production, Iran is the world's fifth largest oil producer and the third largest exporter of crude oil. (See Table 1.) If this price is maintained or if it increases, it will threaten the very hesitant recovery in the U.S. economy and will further weaken the economies of other oil importers.

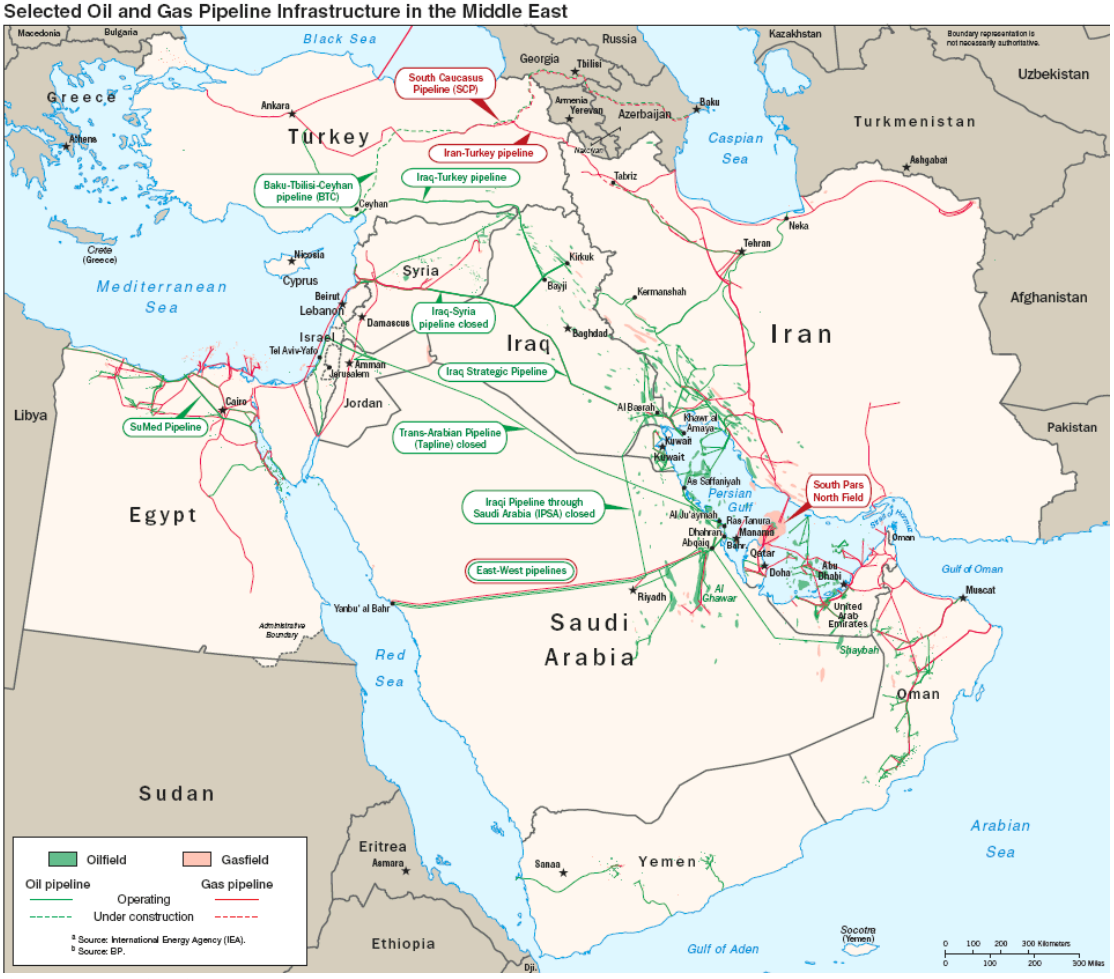
Table 1
Gulf Oil Production and Exports, 2010

	Reserves (billion barrels)	Share of world (%)	Production (million barrels a day)	Share of world (%)	Exports (million barrels a day)	Share of world (%)
Iran	137	9.9	4.25	5.2	2.58	6.76
Iraq	115	8.3	2.46	3.1	1.89	4.95
Kuwait	101.5	7.3	2.51	3.1	1.43	3.75
Oman	5.5	0.4	0.87	1.0	0.75	1.97
Qatar	25.9	1.9	1.57	1.7	0.60	1.6
Saudi Arabia	264.5	19.1	10.01	12.0	6.64	17.4
UAE	97.8	7.1	2.85	3.3	2.10	5.5
Total	747.2	54.1	24.52	29.4	15.99	41.93

Sources: BP, OPEC and author's calculations

Iran's location on the Strait of Hormuz, where production capacity is concentrated and through which about 40 percent of global oil exports is shipped, also remains a source of anxiety. (See map below.) A blockade would also neutralize much of OPEC's spare capacity.

Selected Oil and Gas Pipeline Infrastructure in the Middle East



Source: U.S. Government.

Alternate routes include the 745 mile long Petroline, also known as the East-West Pipeline, across Saudi Arabia from Abqaiq to the Red Sea. This has a nominal capacity of about five million barrels a day (mb/d). The Abqaiq-Yanbuliquid natural gas pipeline, that runs parallel to the Petroline to the Red Sea, has a 290,000 barrel a day capacity. Additional oil could also be pumped north via the Iraq-Turkey Pipeline to the port of Ceyhan on the Mediterranean Sea, but volumes have been limited by the closure of the Strategic Pipeline linking north and south Iraq.

The United Arab Emirates is also completing the 1.5 mb/d Hashban-Fujairah Pipeline that will cross Abu Dhabi to the port of Fujairah just south of the Strait of Hormuz. This is expected to start operating in early summer 2012. Other, more remote, possibilities include the deactivated 1.65 mb/d Iraq Petroleum Saudi Arabia (IPSA) Pipeline (which has been cannibalized to distribute gas within Saudi Arabia) and the deactivated 0.5 mb/d Tapline to Lebanon. While the conflict in Syria continues, reactivation of the latter will not be possible.

Tehran has threatened to close the Strait, but this is very unlikely to occur because Iran is reliant on oil for 80 percent of its exports and does not have any export facilities east of the Strait that could be used if the latter was closed. If Iran's oil revenues were to cease or fall drastically, the economy would collapse. Furthermore, Iran still imports petroleum products because its refineries cannot meet domestic demand. This is one of the results of sanctions. More probable than an Iranian closure of the Strait is a clash between Iranian and Western naval forces that could effectively close Hormuz, at least temporarily.

Anxiety about supplies from Iran as well as U.S. pressure has led Asian states to reduce the volumes they are importing from Iran. South Korea and Japan, which have close links to the U.S., are trying to reduce the amount they buy. China, and more recently India have received assurances from Saudi Arabia that it will meet any shortfall that those countries suffer because of cuts in Iranian imports. The tension between the West and Iran has added a risk premium to the price of crude oil of $5-10 per barrel. Given the very weak state of the world economy, Western powers are trying to ensure that Iran continues to sell oil so that the total volume coming onto world markets is not reduced.

A related reason for high oil prices is that experts believe that OPEC needs to have spare or unused capacity, equal to at least five percent of global oil demand, which can be brought into use quickly to maintain stable prices. This means spare capacity of about 4.5 mb/d is needed while in fact, at the time of writing, OPEC has only about 2.8mb/d, although this will reach about 3.9 mb/d in the summer. Moreover, there are many doubts about the veracity of OPEC members' estimates of spare capacity, which also add to anxiety and are expressed in prices.

While the high price of oil is squeezing consumers worldwide, it has boosted the revenues of the producers. (See Table 2.) Between 2010 and 2012, the oil export revenues of the six Gulf countries that are members of OPEC rose by almost 28 percent. This provided them with a very sizeable financial margin that was used when the Arab Spring began.

Table 2
Oil Export Revenues of Middle East OPEC Member States, 2000-2012
($ billions)

	2000	2005	2010	2011	2012
Iran	28	53	73	82	88
Iraq	21	19	50	60	64
Kuwait	19	42	60	70	78
Qatar	12	1818	37	48	51
Saudi Arabia	76	162	225	265	283
UAE	40	50	67	84	90
Total	196	344	512	609	654

Sources: U.S. Energy Information Administration, OPEC and author's calculations

The high price of oil reflects nervousness about supply and also about the strength of world demand. It is worth stating here some of the basic facts that tend to be forgotten in the present climate.

In the period since the 1973 crisis, oil's share in world energy consumption has fallen, from 48 percent in 1973 to 41 percent in 2009. However, as total energy consumption rose by 79 percent, the volume of oil production increased by 53 percent and the world economy's reliance on it remained great.

The regional pattern of energy use has also changed quite dramatically. In 1973, members of the Organization for Economic Cooperation and Development (OECD) accounted for just over 60 percent of world energy use. In 2009, their share was just under 43 percent. This reflected a combination of factors such as slow growth in major consumers and lower energy intensity of production (see below). On the other hand, the share of Asia (dominated by China and India) rose from 14.3 percent to 29.6 percent. More than any other factor, the strength of Chinese demand has pushed up oil prices.

Another factor that has influenced the demand for energy and oil is the energy intensity of production. This is normally measured as the amount of energy required to produce a constant volume of national income. Between 2000 and 2008 (the latest year for which data is available), energy intensity in the U.S. fell by 14.6 percent, in Germany (which is very "green") by 9 percent, in Japan by 11 percent and in Israel by 17.9 percent. In China it increased by four percent and in India it fell by 16 percent.

Although the world economy has been experiencing a slowdown—which in 2011 caused the prices of many commodities to decline—oil prices have not declined. This was mainly because of supply-side developments and geopolitical risk. Despite even less favorable prospects for global activity in 2012, the IMF forecasts oil prices to fall only marginally, by five percent from a 2011 average of $104.23 to $99.09 in 2012 and by 3.6 percent in 2013 to $95.55. These forecasts do not allow for geo-political instability, something that worries the International Energy Agency (IEA), among others. Geopolitical risks relate to Iran, Iraq, Syria, South Sudan, and Nigeria. There is also, as ever, political uncertainty in Venezuela due to the presidential elections in October.

The IEA and the US Energy Information Administration (EIA) both forecast that the world will continue to rely heavily on oil until 2035. The IEA has said that while events in 2011 reduced short- and medium-term energy demand, they have done little to affect the world's increasing thirst for energy in the long term. The level and pattern of energy use worldwide will be significantly affected by government policies on energy and climate change. If policies designed to reduce global warming are adopted, global primary demand for energy is forecast to increase by one-third between 2010 and 2035, much less than it would if those policies were not adopted. A lower rate of global economic growth in the short term would make only a marginal difference to longer-term energy and climate trends.

The development of energy markets will be increasingly influenced by developing economies (largely non-OECD), as in the EIA forecast**.** Hence, 90 percent of the projected growth in global energy demand will come from non-OECD economies, with China accounting for more than 30 percent. By 2035, China will be the world's largest energy consumer, using nearly 70 percent more energy than the United States. This is despite the fact that, by 2035, per-capita energy consumption in China will still

be less than half that in the U.S. The rates of growth in energy consumption in India, Indonesia, Brazil and the Middle East are even faster than in China. Emerging economies also dominate the expansion of supply: The world will rely increasingly on OPEC oil production as it grows to reach more than half of the global total in 2035.

According to the EIA's 2011 forecast, world energy consumption will rise by 53 percent between 2008 and 2035. Growth may be slower as since 2011, the international economy has deteriorated, but the other patterns described in the report are likely to remain valid. Some 85 percent of the growth in demand will come from outside the OECD. Liquid fuels, of which petroleum is the most important, will dominate supply. Even so, as a result of high oil prices, other fuels, especially renewable, will become increasingly important; hence, the share of liquid fuels in total supply will decline from 34 percent in 2008 to 29 percent in 2035. As in the past, a falling share of rising consumption will mean that the world will use more oil: 85.7 mb/d in 2008 and 111.2 mb/d in 2035. The demand for liquids is dominated by that of the transportation sector, reflecting the fact that the EIA does not expect major technological change to replace oil use. OPEC is expected to invest enough so that it can maintain its 40 percent share in output. Thus, continued reliance on Gulf oil is forecast for the foreseeable future, with all that it implies for relations between consumers and producers, especially those in the Middle East.

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