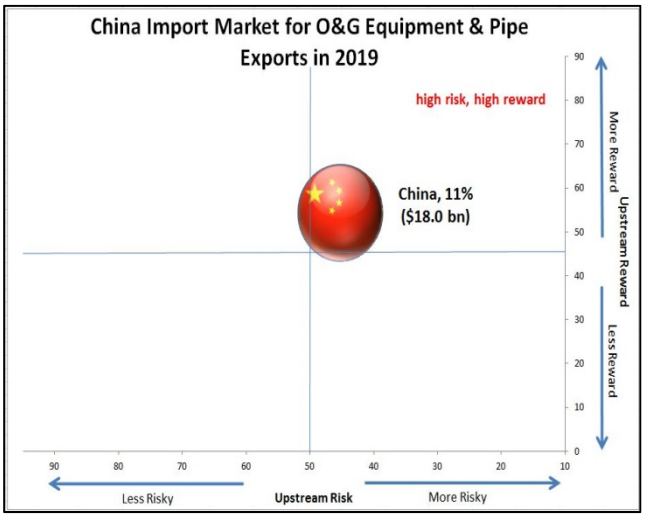
INTERNATIONAL TRADE ADMINISTRATION

2016 Top Markets Report
Upstream Oil and Gas Equipment
Country Case Study

China

Overall Rank: 14

China's O&G sector is well developed but has plateaued and only serves the domestic market. Low international O&G prices are inducing moderate production growth from Chinese SOEs Sinopec and China National Offshore Oil Corporation (CNOOC). While near-term market conditions have decreased demand for new upstream developments, China still maintains robust growth in energy demand. As the government seeks to increase the use of natural gas in its energy mix, more commercial opportunities for large-scale shale gas development are likely. Regulatory uncertainty and restrictive policies, however, remain a barrier for foreign participation.



Background

China is the largest energy consumer and producer in the world, and energy issues are among Chinese policymakers' top concerns. As China pushes to meet its energy demand, the environmental costs of energy consumption—such as pollution from coal-power generation and transportation—have also accelerated China's search for new and cleaner forms of energy, particularly natural gas. Decreases in energy demand growth have helped to decrease energy prices in China, but robust automobile sales and increased demand for air travel represent new areas for energy demand.

Market Analysis

In 2015, the United States exported $1.5 billion of O&G equipment to China (the third largest trading partner overall), representing about 6 percent of U.S. O&G equipment exports. The top U.S. O&G equipment exports to China were parts for sinking and boring machinery, positive displacement pumps and machinery/mechanical appliances.
In 2014, China imported $15.3 billion in O&G equipment, making it the second largest destination of imported equipment in the world after the United States. Over half of China's O&G equipment imports came from four main trading partners: Japan,

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Germany, South Korea and the United States, and the United States was the source for 12 percent of Chinese imports of O&G equipment. Most of the equipment imported by China from all countries were categorized as downhole wireline tools or machinery for lifting, loading and unloading.

Policy Context: Challenges and Opportunities

Low oil prices will have a significant impact on new upstream O&G developments in China, and has forced CNOOC and Sinopec to decrease capital expenditures and reduce production from high cost wells. In addition, China's economic growth is slowing, and the country is not the source of new energy demand that it once was. Despite these challenges, China is still the fourth largest oil producer in the world with demand increases for transportation fuels and energy generation from natural gas. Regardless of the economic environment, China is a challenging market with difficult regulations, barriers to investment and a discriminatory business environment.

The low price of oil will hinder further development of China's O&G sector and challenge Chinese operators to reconcile the fact that production costs for many wells in China are above international spot prices. Given current crude oil prices, Sinopec and CNOOC have been unable to compete within such a low price environment and were forced to reduce production from its high-cost fields, mostly within China. In 2015, Sinopec reduced its capital expenditures by 45 percent, and CNOOC recently announced a 10 percent decrease in its capital expenditures for 2016. Despite these challenges, low global crude oil prices have had one positive effect on China's economy, as they have allowed the Chinese government to fill its strategic petroleum reserve with inexpensive foreign crude oil while maintaining a $40 per barrel price floor for domestic sale.

The Chinese government is looking for ways to increase demand for natural gas as a cleaner source of energy production. The government recently reduced the price for non-residential users to $8/mm Btu to better reflect market conditions. While the price reduction will induce producers to decrease domestic production of natural gas, it should contribute to increased long-term demand.

The Chinese Ministry of Land Resources estimates China's technically recoverable shale gas resources to be 885 Tcf. China faces a number of challenges in raising production: difficult geology and topography, lack of water and infrastructure, lack of technology and skilled personnel, and yet-to-be-determined or nascent policies and regulations. In 2012, to encourage the exploration of shale gas, the Chinese government established a four-year, $1.80 per mm Btu subsidy program for any Chinese company reaching commercial production of shale gas. In mid-2015, the subsidy program was extended to 2020, but at a lower rate.[i]

Foreign participation in China's shale initiative is limited, and lack of competition and uncertain regulations continue to frustrate international companies' efforts. Nonetheless, ample subsidies, legal reform and productivity targets are among the reasons companies are still investing in China's shale gas sector. U.S. companies that specialize in drilling, extraction equipment, and pipeline construction or provide operational services for shale gas developers may benefit from the growth of the Chinese shale gas market. In addition, companies with expertise in seismic analysis and water efficiency technologies should also be well-positioned as the market continues to develop.

IOCs and service companies have established their presence in China chiefly through partnerships with Chinese companies. For offshore development, IOCs mostly partner with the state-owned CNOOC, and for both onshore and offshore projects (which often involve complicated drillings), service companies are hired by China's three largest state-owned firms. Offshore participation, however, carries additional risks because of China's expansive territorial claims. While some of China's offshore activity falls within recognized boundaries, there are ongoing maritime disputes with Indonesia, Japan, Malaysia, the Philippines and Vietnam.

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iToday in Energy, Shale gas development in China aided by government investment and decreasing well cost, September 30, 2015, U.S. Energy Information Administration. http://www.eia.gov/todayinenergy/detail.cfm?id=23152