The rise and rise of China Oil Inc

Chinese NOCs are getting more sophisticated both at home and overseas

AS DOMESTIC energy demand soared, China's energy policy over the past 10 years largely consisted of a quest to secure more of everything.

The policy continues. Despite a cooling economy and moderating consumption at home, there is no end in sight to the overseas adventures of China's three big national oil companies (NOCs). Since early 2012, they have committed more than $30 billion to foreign investments, as they strive to boost their technological capacity and internationalise their operations.

But it is getting trickier. "The Chinese have a strong appetite to buy more, but whether developed countries allow them to invest is another question," Simon Wong, a senior credit officer at ratings agency Moody's, told *Petroleum Economist*.

The Chinese have started to diversify their acquisition targets as easy access to conventional assets gets increasingly difficult.

Kang Wu, a China specialist at Facts Global Energy (FGE), points out that the NOCs, historically focused on conventional upstream assets overseas, have already expanded their horizons.

"They are pushing into the downstream business, trying shale-gas projects upstream, as well as venturing into deeper waters. Even the Arctic is on their radar, nothing is happening yet, but the intent is expanding," Wu told *Petroleum Economist*.

Moody's recently singled out China's leading NOC, China National Petroleum Corporation (CNPC), as having plenty of room to make further investments.

CNPC can spend an extra $10 billion on acquisitions this year -- on top of its previously announced capital spending plans -- without hurting its credit rating.

Meanwhile, China Petroleum and Chemical Corporation (Sinopec) and CNOOC Limited (CNOOC Ltd) have less flexibility, but can each afford to spend another $2 billion to $10 billion above their committed capital expenditure.

Big spenders

In the near term, CNOOC's appetite for deals is expected to diminish as it digests its $15.1 billion acquisition of Canadian independent Nexen. Meantime, Sinopec, Asia's largest refiner, completed three separate deals worth around $5 billion in North America last year and agreed to buy Total's 20% stake in the Usan field off Nigeria for $2.46 billion. The company is also in talks with Petronas about a stake in Canadian-based Progress Energy.

By comparison, CNPC had a relatively quiet year, snapping up BHP Billiton's interest in the Browse gas-export project in Australia for $1.6 billion, as well as paying $1.2 billion for a 49.9% stake in the Duvernay shale-gas formation in Canada. In July, the firm also completed the $4.2 billion purchase of a 20% stake in the offshore Mozambique Area 4 development.

It is widely expected the Chinese NOCs will continue their investment drive in North America and, to a lesser extent, Latin America.

"The gradual opening up of Mexico might be of interest to the Chinese NOCs. They don't have the same requirements in terms of equity that the international oil companies (IOCs) have and should be happy with deals there," Valerie Marcel, a specialist on NOCs at UK think tank Chatham House, told *Petroleum Economist*. Mexico's president is determined to rejig his country's constitution to allow more foreign investment in the Mexican upstream.

Of course, Chinese firms will remain strong in Venezuela and the hot African exploration plays too, Marcel added. In East Africa, Wong expects more Chinese investments as project sponsors push towards final investment decisions, expected by 2014, for gas export schemes offshore Mozambique.

Looking ahead, Marcel sees a much stronger relationship emerging between Gulf exporters and the Chinese NOCs.

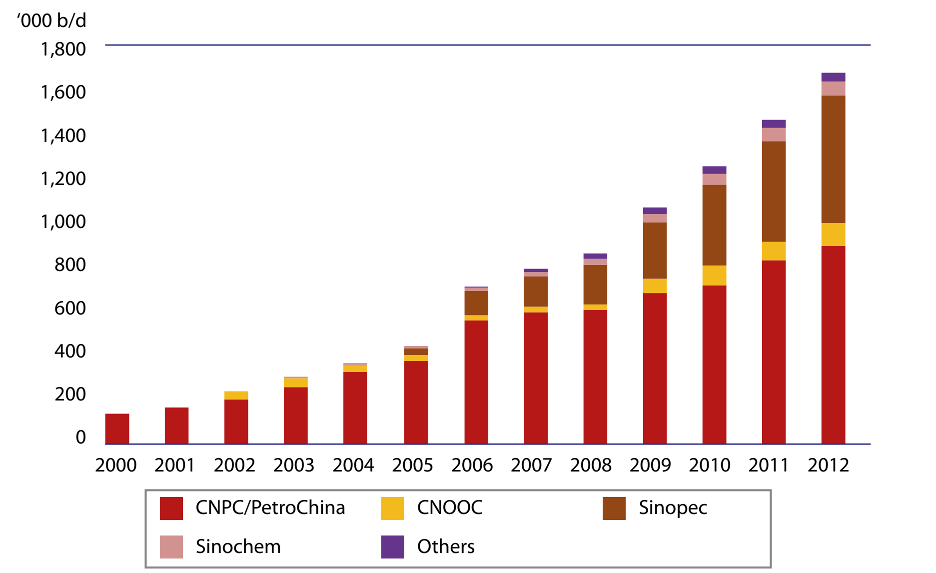
"It's not imminent but we'll see them really addressing each other's needs. Not just handing out a licence, but taking a more strategic and diplomatic approach to cross investment."

From the beginning of 2006, China's NOCs have made total investments of more than $150 billion, with most of that being spent outside Asia.

The rate of investment picked up in 2002 and accelerated in the wake of the global financial crisis in 2008, when falling equity values – and oil prices -- presented a significant buying opportunity.

China's quest to meet soaring energy demand has seen it buy energy assets from such far-flung places as North and South America, to Australia, Africa and Central Asia, while engaging in energy diplomacy

Figure 1: China's overseas equity oil production, 2000-2012



Source: FGEnergy

China's NOCs at a glance

CNPC

CHINA National Petroleum Corporation (CNPC) is the largest oil and gas company in China. It is 100% owned by the Chinese government and is one of the biggest state-run firms.

It dominates both the upstream and downstream businesses in China, making up 60% of production, holding 70% of domestic reserves, and controlling 80% of the natural gas pipelines in terms of length. This dominant position is protected by government policy, which sets strict barriers of entry. Its massive infrastructure is also very hard for potential competitors to duplicate.

CNPC's oil and gas reserves stand at around 23 billion barrels of oil equivalent (boe) and production is in the region of 1.67 billion boe, putting the NOC among the top five integrated oil and gas companies in the world. The share of gas in its reserve portfolio rose to about 48% in 2011.

As of 2012, around 8% and 23% of its proven reserves and production came from overseas.

CNPC's three-year reserve replacement ratio averaged 127%.

PetroChina is the main operating arm of CNPC. It is listed in New York, Shanghai and Hong Kong. CNPC owns 86.51% of PetroChina's shares.

The listed offshoot contributed about 82% of CNPC's revenue, estimated at about $427 billion in 2012, held 64% of CNPC's assets, and is engaged in the exploration and production, refinery and chemical, pipeline and marketing businesses.

PetroChina posted a net loss of 115.3 billion Yuan, dragged down 13.3% year-on-year on the back of domestic pricing controls and higher costs for importing gas.

In China, CNPC processed 147.16 million tonnes of crude and produced 96.38 million tonnes of refined products, up 1.6% and 3.6% year-on-year respectively.

The NOC reported losses of 33.6 billion yuan ($5.48 billion) from its refining segment, but recent pricing reforms should see it turn an operating profit margin of around 1.5-2% in future.

In 2012, CNPC processed 44.29 million tonnes of crude overseas, 27.3% more than in 2011. It operates joint venture refineries in Sudan, Kazakhstan, Algeria, Chad and Nigeria. It also has stakes in refineries in Japan, Singapore, Scotland and France.

Zhou Jiping is the chairman of CNPC

Sinopec

CHINA Petrochemical Corporation (Sinopec Group) is the largest refiner and petrochemicals producer, as well as the second-largest oil and gas producer in China. It is fully owned by the government.

Sinopec's subsidiary, China Petroleum and Chemical Corporation (Sinopec Corp), is 73.86% owned by Sinopec Group. Sinopec Corp mainly operates in China. Its oil operations are mostly focused on the Shengli oilfield and its gas reserves at the Zhongyuan field.

The group's oil and gas reserves stand at around 6 billion boe, yearly production of around 630 million boe and crude distillation capacity of 275 million tonnes per year (t/y) as of 2012 also make it one of the largest integrated energy and petrochemicals companies in the world. Its revenue for 2012 was $449 billion. The contribution of its overseas proved reserves and production jumped by more than 30% by end-2012 from around 13-15% in 2007.

Sinopec Corp's reserve replacement ratio was under 100% in 2009 and 2010, and around 100% in 2011 and 2012.

It is the largest refiner in China, making up about 60% of the country's refined oil supply.

With a yearly crude processing capacity of some 275 million t/y and ethylene production capacity of 9.58 million t/y as of 2012, it is also one of the largest refiners in the world. Its refining throughput edged up 1.8% year-on-year to 221.31 million tonnes.

Its average daily crude output only makes up about one-quarter of its crude distillation capacity. Consequently, it is highly vulnerable to volatility in crude prices.

According to Moody's, its downstream operations outperform those of its domestic peer, CNPC, in terms of profitability and efficiency.

Sinopec plays a critical role in securing China's energy supply, and as the biggest refinery and petrochemical producer, it is responsible for about 70% of the country's total imports through its long-term contracts with international crude suppliers.

Sinopec Corp's net profit for 2012, fell 12.8% to 63.88 billion Yuan year-on-year. But its refining losses narrowed. Operating losses on refining narrowed to 11.95 billion yuan in 2012 compared with a loss of 37.6 billion yuan the previous year.

Fu Chengyu is the chairman of Sinopec

CNOOC

CHINA National Offshore Oil Corporation (CNOOC) is an integrated energy player 100%-owned by the government.

The majority of the group's profits (79% of total profit in 2012) came from the upstream operations of its 64.45%-owned subsidiary, CNOOC Ltd, which is the dominant operator in China's offshore sector. CNOOC Ltd is listed in New York and Hong Kong. CNOOC Ltd posted net profits of $63.69 billion yuan in 2012, down 9.3% from the previous year on the back of rising costs. Its total revenues edged up 2.8% to 247.63 billion yuan.

The group's remaining profits come from its expanding refinery, petrochemicals, oil services, and other downstream operations.

CNOOC Ltd's net proved oil and gas reserves stood at 3.49 billion boe at end-2012. However, its $15.1 billion acquisition of Nexen, completed in February 2013, will bolster its proved reserves by 24% and net production by 20%.

Following the deal, the company's overseas reserves will make up 44% of its global total.

Average daily production stood at 936,000 boe in 2012.

Its reserve replacement ratio averaged 183% over the past three years.

Wang Yilin is the chairman of CNOOC Ltd.

Sources: Company data, Moody's ●

with Russia, Myanmar (Burma), Iran, and Sudan.

But populist rhetoric in Western countries, particularly the US, portrayed the Chinese NOCs as predators, prepared to spend vast sums of money to secure overseas resources, often at the expense of the host country's security.

This is not true. Chinese investments have, for the most part, helped boost supplies of oil and gas through the same international market other importers rely on.

Even CNPC, considered to be the NOC most closely aligned with the state, is propelled abroad by the prospect of earning higher profits and enjoying more autonomy from Beijing in its operations, and not so much by state diktats, argued Yale University's Bin Bin Jiang in a book, *Oil and Governance: State-Owned Enterprises and the World Energy Supply*. Among the Asian NOCs, China's appear to be the strongest and most autonomous, operating with the weakest institutional oversight. "Their size, political standing within China, long experience of domestic oil and gas production, and healthy cash flows give them a high degree of freedom to act according to their corporate interests, except where projects are either very large or in strategically important regions such as the Middle East or

Japan and South Korea's NOCs

Japan

JAPAN's government does not have a national oil company (NOC) to speak of, but as the world's third-biggest oil importer and the largest importer of liquefied natural gas (LNG) – and without any significant domestic hydrocarbons resources – it supports a string of Japanese companies.

Since the Fukushima-Dai'ichi nuclear disaster in 2011, which prompted the closure of almost all Japan's nuclear capacity, these Japanese NOCs have been actively pursuing minor stakes in oil and gas assets, especially in nations with stable financial and regulatory regimes.

Japan was the most aggressive of all the Asian nations in its search for overseas oil supplies in the 1970s. Its adventure began in 1965 but accelerated after the birth of the Japan National Oil Corporation (JNOC) in 1978. It built up a portfolio of 119 projects, but didn't perform as the government wished. In 2002, the state broke it up.

However, renewed supply fears sparked the assembly of Japan Oil, Gas and Metals National Corporation (JOGMEC) from the remains of JNOC; as well as the beginning of Inpex, which is 18.9% owned by the government, and the continuation of Japan Petroleum Exploration Company Limited (Japex), a national firm founded in 1955.

South Korea

SOUTH Korea is reviewing its international investments as poor profitability, particularly from deals made in the past five years, could spark asset sales to offset losses.

The nation is the world's fifth-largest crude importer and second-biggest importer of LNG. But a statement released by the government in July revealed poor profitability from overseas investments by Korea National Oil Corporation (KNOC) and Korea Gas Corporation (Kogas).

KNOC bought US firm Ankor Energy in 2008, Canada's Harvest Operations in 2009 and the UK's Dana Petroleum in 2010.

Meanwhile, Kogas picked up stakes in projects from Australia, to Uzbekistan and Iraq, in the past five years.

But the government is expected to rationalise the state-backed firms' portfolios.

Reuters reported a government source saying that the assets would be put up for sale soon, although they would not be publicly named.

Debt to equity ratios have risen sharply since 2007, which in KNOC's case soared from 64.4% to 167.5%, while for Kogas they jumped from 228% to 385%.

KNOC, which is 100% government-owned, is believed to have lost $1.8 billion in oil-reserve development since 2008.

Ratings agency Moody's noted that KNOC's reliance on debt to expand its overseas investments has weakened its financial profile.

Moody's expects KNOC to cut its debt-funded acquisitions over the next two to three years, as it plans to keep its debt from rising further and instead focus on improving the profitability and productivity of its existing fields.

Further investments over $2 billion will pressure KNOC's credit profile over the next year or two. **DE** ●

former Soviet Union" writes Philip Andrews-Speed, a principal fellow at the Energy Studies Institute of the National University of Singapore.

Equally compelling for China's NOCs is that production costs in domestic fields tend to be significantly higher than in the better fields overseas.

Still, they have drawn flak from analysts that claim they overpaid for assets.

However, there is no evidence of intentional overpayments and Marcel points out that their cost of capital is undoubtedly lower than the majors.

Wu says it is nothing more than a myth that Chinese NOCs go out to lose money. They are simply driven by a different set of expectations compared to the IOCs.

For instance, the financially ailing refineries shuttered by the IOCs make an attractive business for the NOCs.

The Chinese firms are happy with slender margins because they barely break even with domestic refining, as pricing controls cap their returns. For Sinopec, China's dominant refiner, the government's delays to subsidy reform have resulted in sizable losses. But a new pricing mechanism should see it turn a reasonable profit in future.

Both CNPC and Sinopec have been expanding downstream, investing heavily in overseas refineries, as well as more product storage, pipelines and other logistics assets, to bolster their international oil-trading position.

Only last October, Sinopec took a 50% stake in tank firm Vesta Terminals through a joint venture with Swiss-based Mercuria Energy for $220.1 million.

Nevertheless, the rise of China's NOCs, with heavy state support outside their borders, has become a threat to the global competitiveness of large IOCs.

"My impression from talking to their customers, particularly the Middle Eastern NOCs, was often that the Chinese were not on par with the IOCs by mid-2000. But since then their clients acknowledge that the Chinese have caught up very quickly. Executives from IOCs tend to agree too," says Marcel.

Big spender

It is telling that both PetroChina and its parent CNPC spend a great deal on developing in-house technology to address future geological challenges.

Data from Marcel's report *What Next for the Oil and Gas Industry?* show that PetroChina is investing three times more per net sale in research and development (R&D) than any of the majors, making it the top spender in absolute terms on R&D in 2010 among oil and gas companies.

But, despite decades acquiring plenty of technology, certain areas, particularly shale and deep-water projects, still need foreign expertise, says Wu.

Chinese companies have invested in US shale projects, where the technology for developing shale gas was pioneered, to build technical knowledge that will help them develop unconventional resources at home. Still, for fear of a backlash, they are extremely careful to structure those deals in a manner that does not worry US regulators.

PetroChina is working with Shell on several projects and picked up a 20% stake in the Anglo-Dutch supermajor's Canadian shale-gas development.

Last year, CNPC signed a deal with Shell to explore and produce shale at home, while Total, Chevron and BP are all working with Chinese players to find shale gas in China.

But these alliances, trading frontier skills for access to reserves, are not necessarily win-win.

"While securing access to new shale resources in China is attractive, the pairing of a qualified national operator with an oil major risks cannibalising the latter's future markets elsewhere," writes Marcel.

Indeed, the transfer of skills and technology to Chinese rivals will inevitably shorten the lifespan of the majors' technological advantage, she argues. **DE** ●