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Special report: NOCs

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On top of the world

Their domination of global reserves has put NOCs in control of the oil industry. But they must do more to keep their advantage

NATIONAL oil companies (NOCs) have riches below ground and international oil companies (IOCs) have them above. That used to be the way the world's big, listed oil majors assured themselves that, despite the rise of state-owned firms, their future was secure. They might not own as much oil, but they had brainier employees, more technical nous, greater discipline and knew how to put money to work and get projects done on time.

The past decade has shattered those illusions. From the much-delayed Eni-led Kashagan oilfield to BP's disastrous Macondo well, from the soaring costs of Australia's Chevron-led Gorgon gas project to Shell's Sakhalin-2 and Pearl gas-to-liquids project in Qatar, the reputation of the majors has taken a bruising.

NOCs have suffered some of their own mishaps. Thailand's PTTEP has spilled much oil. Petrobras's pre-salt discoveries have yet to yield the production riches the company promised. Pertamina has been unable to stop the decline of Indonesia's upstream. Nigerian National Petroleum Corporation (NNPC) has presided over a decaying oil sector. The National Iranian Oil Company has been beaten down by sanctions and the politicisation of the country's energy industry. Hugo Chavez sapped the funds and forced out thousands of engineers and geologists at PdV, causing deep damage to the firm. A corruption scandal and depletion have undermined Algeria's Sonatrach. Russia's Gazprom misjudged shale gas.

But many NOCs have thrived. Qatar Petroleum (QP) has created the world's biggest liquefied natural gas (LNG) business, underpinning the emirate's arrival as a global diplomatic force and investor. Saudi Aramco has remained at the top of the world's upstream, finding and producing new oil almost at will. Sonangol has turned Angola into a major exporter (albeit with considerable help from the majors). Ecopetrol has revived Colombia's ailing oil sector. Having wiped out Yukos, Russian president Vladimir Putin has put Rosneft at the top of the world's second-biggest oil-producing country.

Then there is China. Its three NOCs have emerged as decisive and often dominant investors across the world, buying assets from Canada's oil sands to the US shale-gas sector and Australia's gas business to Africa's upstream. Less than a decade ago, their arrival was greeted with fear, exemplified by the US Congress's notorious decision to stop Cnooc from buying Unocal (it was later bought more cheaply by Chevron) in 2005. There's still some fear among governments, as Canada's reluctance over Cnooc's Nexen deal showed. But perceptions are changing. "This is one sophisticated company," a surprised Nexen official said of Cnooc while the deal was still in the balance.

The technological advantage of the IOCs is also being eroded. Statoil and Petrobras are leaders in deep-water exploration. As the Manifa oilfield development shows, Aramco remains one of the great project executors — and has now turned to state-of-the-art downstream projects, too. Thanks to its partnerships with IOCs, QP's LNG prowess is second to none. Where NOCs lack the expertise, they buy or employ it. The rise of oilfield services companies in recent years has helped. Schlumberger is now deploying its own low-water fracking technology on Aramco's behalf to search for shale reserves in Saudi Arabia. The investments of Chinese and Indian firms in the US shale-gas sector is giving them exposure to drilling techniques that should eventually be used closer to home. As Damon Evans, Petroleum Economist's Asia correspondent, writes in this month's survey, PetroChina now invests three times more per net sale than any oil major in research and development (R&D). In 2010 it was the oil world's biggest R&D spender. India and China, research from consultancy Booz & Co shows, have been expanding their R&D spending at a rate that far outpaces any other country's.

Above all, though, the rise of the NOCs has been based on their reserves. In the 1970s, notes consultancy Bain, NOCs controlled just 10% of the world's known oil. Now they own 90%. Exacerbating this is another fact: the barrels that do not belong to the NOCs are getting harder and costlier to extract. Saudi Arabia can produce oil from its mature fields at a cost of less than $4 per barrel, says consultancy Petroleum Policy Intelligence. Production elsewhere in the Middle East is similarly cheap. Yet Bernstein, a bank, reckons oil from marginal-producer places like the Bakken costs more than $100/b to produce. With much of the world's best, easy-oil acreage out of bounds to the majors, they have been forced into the costlier, trickier and riskier plays. IOCs have also found themselves in the wrong part of the world. Asia is the source of energy-demand growth. But the Western IOCs are increasingly boxed into their corner of the rich world. Even when the big openings have offered opportunities, as in Iraq, the IOCs have met competition from consumer-country NOCs that are often more willing to stomach riskier and less profitable plays to secure volume.

Another shift?

All this gives NOCs a monumental advantage. But there are subtle signs of another shift in the balance of power. The high-oil price era that has done so much to sustain the reserves-rich countries gave the signal to private companies elsewhere to find more oil and gas. The trove of North American energy unlocked in recent years by hydraulic fracking and oil-sands development means production from non-Opec countries is far outpacing output growth from the cartel and its NOCs. The availability of more supply means demand for Opec's oil is falling. No wonder the group is preparing a study into the impact of shale oil.

Even the mightiest state-oil firms are feeling some heat. Qatar's inflexible gas-marketing strategy — favouring long-term contracts at premium prices – now seems out-of-date. The US has disappeared as a market for its LNG; and North America and Australia are emerging as supply-side competitors. Sonatrach and NNPC are rapidly losing market share to American light, sweet crude oil. Upstream failures have prompted some NOCs to begin opening up again. Pemex's monopoly on the Mexican upstream seems at last likely to be broken. Thanks to the opening of the unconventional oil sector, the NOCs that can't go it alone will have to be less haughty and offer better terms to their competitors. The UAE's Adnoc is in the process of renewing several concessions with oil majors. But the terms — a few bucks on the barrel — no longer look so attractive, given the opportunities elsewhere.

As our survey shows, moreover, politics and governance

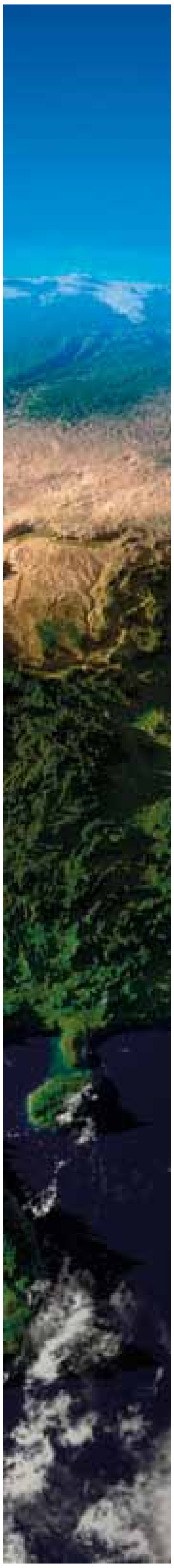

Table 1: Top 50 oil companies worldwide

Company	Output Liquids ('000 b/d) Rank	Vol.	Gas million cf/d Rank	Vol.	Reserves ('000 barrels) Rank	Vol.	Product sales ('000 /d) Rank	Vol.	Refining capacity ('000 b/d) Rank	Vol.	Country	Ownership
Saudi Aramco	1	10,333	4	9900	2	265,405	5	3403	9	2214	Saudi Arabia	State-owned
Nioc	2	4,321	2	14687	3	151170	13	2265	14	1772	Iran	State-owned
ExxoMobil	9	2,312	3	13162	12	12228	1	6413	1	6218	US	Private
CNPC	3	2998	7	8529	8	25003	12	2363	3	3607	China	State-owned
PdV	7	2,500	22	3016	1	296501	11	2434	6	2822	Venezuela	State-owned
BP	11	2,157	8	7518	16	10585	3	5776	8	2352	UK	Private
Shell	15	1,666	6	8986	23	6048	2	6196	4	3251	UK/Holland	Private
Chevron	13	1,849	12	4941	20	6455	8	2949	12	1967	US	Private
Total	78	1,226	10	6098	25	5784	4	3639	10	2088	France	Private
Gazprom	22	892	1	49654	18	9742	24	875	21	1135	Russia	50.002% state-owned
Pemex	5	2,877	17	4386	13	11632	15	1685	13	1860	Mexico	State-owned
ConocoPhilips	25	866	15	4516	27	4901	6	3128	7	2365	US	Private
KPC	4	2,901	44	1253	5	101725	19	1140	20	1136	Kuwait	State-owned
Sonatrach	16	1,503	9	7272	14	11300	26	822	35	456	Algeria	State-owned
Petrobras	10	2,170	27	2712	15	10804	9	2854	11	2013	Brazil	47% state-owned
Lukoil	14	1,839	33	1802	11	13403	14	2108	16	1476	Russia	Private
QP	17	1,449	5	9331	17	10367	29	634	48	274	Qatar	State-owned
Adnoc	12	1,940	24	2823	6	55380	39	422	32	502	UAE	State-owned
Rosneft	8	2,380	46	1237	10	18351	22	950	24	1113	Russia	75.16% state-owned
Petronas	30	577	13	4845	28	4853	25	837	38	448	Malaysia	State-owned
Sinopec	23	881	40	1417	36	2848	7	3106	2	5563	China	75.84% state-owned
Eni	26	845	19	4085	33	3434	36	514	26	767	Italy	33.4% state-owned
INOC*	6	2,613	88	171	4	143100	30	622	29	653	Iraq	State-owned
EGPC	36	463	21	3261	41	2150	28	770	27	726	Egypt	State-owned
NNPC	20	1,081	35	1677	9	22300	64	33	39	445	Nigeria	State-owned
Statoil	21	945	18	4236	39	2276	46	301	42	378	Norway	67% state-owned
Surgutneftegaz	19	1,221	43	1253	19	9061	40	413	45	346	Russia	Private
Pertamina	53	194	38	1530	48	1318	20	1113	25	1031	Indonesia	State-owned
ONGC	28	665	26	2713	31	3698	54	182	66	214	India	69.23% state-owned
TNK-BP	24	871	58	735	24	5993	43	375	36	455	Russia	Private
Repsol	46	267	34	1773	61	729	23	949	22	1131	Spain	Private
NOC	39	387	81	286	7	32970	52	252	42	378	Libya	State-owned
Cnooc	27	708	50	1172	40	2165	44	366	51	241	China	State-owned
Kazmunaigaz	38	424	71	469	26	5707	50	271	47	308	Kazakhstan	State-owned
Socar	56	169	60	685	32	3500	58	109	41	399	Azerbaijan	State-owned
Uzbekneftegaz	71	84	11	5516	65	571	60	85	54	220	Uzbekistan	State-owned
PDO	37	424	32	2170	35	3007					Oman	60% state-owned
Novatek	68	96	14	4592	59	768	67		66		Russia	Private
Ecopetrol	29	616	66	617	45	1371	45	361	46	335	Colombia	88.49% state-owned
Suncor	35	472	73	463	30	3816	37	509	40	441	Canada	Private
Apache	40	371	30	2262	46	1370					US	Private
BG	57	166	23	2854	52	1105					UK	Private
SPC	54	185	79	405	37	2500	46	301	52	240	Syria	State-owned
Devon	51	224	28	2610	49	1257					US	Private
OMV	61	143	55	812	64	628	31	596	37	449	Austria	31.5% state-owned
Anadarko	44	291	29	2334	51	1145					US	Private
Occidental	31	529	48	1223	38	2288					US	Private
BHP Billiton	50	233	31	2552	57	804					Australia	Private
Hess	47	266	65	623	50	1169	38	430	50	245	US	Private
Reliance	90	19	45	1238	95	22	18	1358	18	1240	India	Private

Source: Petroleum Intelligence Weekly
Notes: All data based on end-2011 fiscal year, the last date for which complete data are available.
*INOC no longer exists. Here used as proxy for state holdings.

problems continue to afflict many NOCs. The murkiness of Russian oil could hurt Rosneft's growth plans. Libya's state firm is losing control of its own oil sector. Iran's is desperate for cash. Since scrapping plans to bring the majors into its gas sector, even Saudi Aramco has struggled to find the gas reserves it wants.

Many of the NOCs are also held back by their own government's policies, especially subsidies that force them to sell oil and gas cheaply at home — a double whammy because it cuts into their potential export revenue while spurring rapid domestic demand growth. That is a problem that afflicts NOCs across the world, from Saudi Arabia to Indonesia and even China. Meanwhile, few of the world's producer NOCs (Aramco, predictably, is an exception) are primed to play a major role in the rapidly growing downstream sector. Rising refining capacity in the next few years, believes the International Energy Agency, will change the oil market, as global petroleum products trading comes to the fore. Integrated IOCs are more prepared for this than producer NOCs.

Fundamentally, shale is changing the geography of oil and the perception of scarcity. As supplies rise outside Opec and fears of shortages ease, the NOCs will have to work harder to keep ahead. With oodles of unconventional oil to be found, IOCs can afford to spend less time fretting over security in Libya or Algeria and more time scraping bitumen in Fort McMurray. It is too soon to call time on the era of NOC domination. But as the rise of the downstream sector will show in the coming years, oil is much more profitable out of the ground than in it. **DB** ●

Rosneft: supermajor status beckons

Its growth plan is aggressive, can Russia's state oil firm step out of the shadows to become a truly global player?

TO UNDERSTAND the problem facing Russian state oil and gas firm Rosneft in its quest to become the world's next supermajor, consider the following: in June 2012, the combined value of Rosneft and its takeover target TNK-BP was $108 billion; a year later, when its management unveiled a plan to pay TNK-BP minority shareholders less for their stock than the March takeover price, that had fallen to $77 billion.

With the $55 billion acquisition of TNK-BP, a Russian joint venture between BP and a group of Russian oligarchs, Rosneft was catapulted into the world's largest listed oil company by output, with production of more than 4.5 million barrels a day (b/d), which is about 40% of Russia's total.

Yet even as investors acknowledge the birth of a new supermajor with unparalleled exploration assets in the Arctic and strategic partnerships with a host of international majors, doubts linger about this state-backed project, even if its architect is the powerful Kremlin insider Igor Sechin.

"Not only did the market disregard the $12 billion potential value of synergies, but it apparently saw the deal as value-destroying," says Ildar Davletshin, an analyst at investment bank Renaissance Capital, of the TNK-BP deal.

"While there are many reasons to be cautious about Rosneft's ability to extract those synergies in the future, the biggest factor behind the negative returns is to do with corporate governance."

Table 1: Rosneft by the numbers

Oil reserves (2012):	14.6 billion barrels of oil 26,599 billion cubic metres Total = 19 billion boe
Reserve replacement (2012):	131%
Production (2012):	2.7 million boe/d
Refining throughput:	61.6 million tonnes
Net income (2012):	342 billion roubles
Revenue (2012):	3,078 billion roubles
Market capitalisation:	$75.8 billion
President:	Igor Sechin
Headquarters:	Moscow

Rosneft is in many ways still a shadowy organisation – it is after all a product of the forced-bankruptcy of Russia's once largest private oil company Yukos. In the latest piece of negative news, on 3 June RIA Novosti revealed that the Ministry of the Interior had opened a criminal case into the suspected laundering of $890 million involving clients of a bank 85% owned by Rosneft.

At the same time, though, there are signs Rosneft is adapting to its role as the spearhead of Russian oil exploration, which inevitably requires a greater transparency to appease its growing base of foreign shareholders, such as BP with 19.75%.

"Soon, 50% [of Rosneft] will be in the hands of private investors," says Konstantin Simonov, head of Russia's National Energy Security Fund, referring to prime minister Dmitry Medvedev's plan to continue selling down the state's stake in Rosneft to around 51%.

"It means, maybe, in two or three years BP could buy a serious share in Rosneft and we would see Rosneft-BP instead of TNK-BP."

Ivan Khromushin, an analyst with Gazprombank, says Rosneft's investor day in April left him with "quite positive" impressions. "Rosneft management held an open dialogue with the market, outlined the potential of the combined company and addressed the key areas of the market's concern," he says.

Khromushin says the essential tasks for Rosneft are to present a comprehensive update of the company's strategy; provide production and capital expenditure guidance on key business segments; prioritise key groups of large-scale investment projects; and demonstrate progress in realising those synergies from the TNK-BP acquisition.

On 16 July, Rosneft duly obliged, with Sechin announcing that Rosneft would invest 52 billion rubles ($1.6 billion) in eastern Russian projects in 2013, where it has resources of around 14 billion tonnes of oil equivalent in new fields. Rosneft is planning to explore 20 offshore exploration blocks, in the Okhotsk, Laptev and Chukotka seas of eastern Russia, in bilateral partnerships with ExxonMobil, Statoil, and Inpex.

"Rosneft's acquisition of TNK-BP gave it control of additional oil production in east Russia, such as that from Verkhnechonsk, which can eventually be exported to Asia via the [planned] Eastern Siberia-Pacific Ocean (ESPO) oil pipeline," says IHS Global Insight, a firm of analysts.

Looking to China

The key here is Asia, particularly China. Russian energy firms are, in the words of Renaissance Capital, "moving east". President Vladimir Putin has made it an explicit policy for Russian oil and gas firms to sell more of their output to Asia and away from economically struggling and politically peevish Europe, and has helped push big deals lately to achieve this.

In June, Rosneft signed an oil-supply deal with China National Petroleum Corporation (CNPC), under which it will transport 360 million tonnes of oil over the next 25 years for an estimated value of $270 billion.

Analysts say Rosneft should also be able to improve its realised prices due to stronger demand in the Asia-Pacific market.

Rosneft has already signed a deal with CNPC to explore three offshore Arctic areas in the Pechora and Barents seas, part of the Russian company's strategy to tie up with other majors such Eni and Statoil to develop the complex fields in the Arctic, large parts of which Russia claims are its sovereign territory.

Rosneft will receive between $60 billion and $70 billion in prepayments from CNPC, which would cover Rosneft's total indebtedness at the end of the second quarter of around $56 billion at current exchange rates. To finance the acquisition of TNK-BP, Rosneft raised nearly $37 billion in new borrowings.

On 29 July, Rosneft released financial results that for the first time consolidated those of TNK-BP, which comfortably beat analysts' expectations.

Net profit during the second quarter was 35 billion

A new dawn: Rosneft has global ambitions

rubles ($1.07 billion), though this was down from the 102 billion ruble profit made in the first quarter, marred by huge foreign-exchange losses, a 6% decline in oil prices and high export duties. Revenue rose about 62% on year to 1.18 trillion rubles.

The bump up in production was most striking, rising 82.6% on year to 4.786 million barrels of oil equivalent a day (boe/d) in the second quarter. Russian oil production hit a new post-Soviet high of 10.53 million barrels per day (b/d) in June.

Rising gas production

Rosneft's gas production is also surging; in the first six months of the year, it more than doubled gas output to 15.28 billion cubic metres (cm), up from 6.72 billion cm a year earlier.

As well as TNK-BP, Rosneft's July purchase of the remaining 49% of independent gas company Itera for $2.9 billion will help it reach its goal of producing 100 billion cm of gas a year by 2020, up from just 13 billion cm last year. By contrast, gas monopoly Gazprom produced 479 billion cm in 2012.

Rosneft's assault on Gazprom's preeminent position in the gas market has a political dimension.

Sechin, a trusted confidant of Putin, has lobbied successfully for Gapzom's monopoly on gas exports to be curtailed from next year, giving Rosneft the ability to commercially develop its prospective offshore projects – Sakhalin-3 and Sakhalin-5 – and send the liquefied natural gas (LNG) to China and the wider Asian region.

In April, Rosneft and Sakhalin-1 partner ExxonMobil said they were pushing ahead with a proposal to construct a $15 billion LNG plant on Russia's Pacific coast to monetise that project's gas reserves and market LNG exports in the Asia-Pacific region.

Rosneft is in many ways still a shadowy organisation – it is after all a product of the forced-bankruptcy of Russia's once largest private oil company Yukos

The greater role of gas in its business, its acquisition of TNK-BP, plus the tie-ups with other majors such as ExxonMobil in Iraq are all part of efforts to raise the company's value to $120 billion within the next two years, thus displacing Gazprom as Russia's largest company.

Sechin certainly has the ambition to turn Rosneft into an international energy supermajor. But will he allow the openness and transparency that this would require? **NW** ●

Saudi Aramco: Master of the kingdom

The threats to the world's biggest and most important oil company are overstated

SOARING shale-oil production in North America is a threat to Saudi Arabia and the kingdom must quickly diversify its economy away from oil to avert the looming crisis. So thinks Alwaleed bin Talal, a billionaire investor and a very rich prince in a kingdom not short of them.

"It is necessary to diversify sources of revenue, establish a clear vision for that and start implementing it immediately," Alwaleed wrote in an open letter to oil minister Ali Naimi in July. Saudi Arabia would never be able to lift output capacity from 12.5 million (b/d) to 15 million b/d, he continued, and the kingdom's budget depends too heavily on oil revenue.

It isn't the first time Saudi Arabia – and its state oil company Aramco – have been told its days at the top are numbered. The late Matthew Simmons, doyen of peak-oil theorists, once wrote a whole book arguing that Saudi reserves figures were over-stated and the inevitable decline of the giant Ghawar field, bedrock of the kingdom's supply, would soon begin to cut into production capacity.

You can only imagine the sighs as Naimi and Khalid Falih, Aramco's boss, read the prince's letter. Last year, however, Aramco's production average 9.5 million b/d, its highest rate ever.

Saudi Arabia shelved its 15 million b/d target several years ago and Naimi has repeatedly said the kingdom is happy with output capacity now, which is 12 million b/d, according to Aramco. Alwaleed has a point about oil dependency, though it has suited the ruling Sauds well for several generations. But the sheer size of Saudi oil reserves and the volume of crude it exports mean hydrocarbons revenue would dwarf other sources of income in much bigger economies, too.

Rising market share

Shale oil is not the immediate threat the prince believes it to be, either – or not for Saudi Arabia, anyway. Despite new unconventional supplies in the US, the kingdom's share of that market has actually risen in recent months. Anyway, Aramco sold more than half of its oil last year in Asia. "I felt the optimism towards the future growth of the region," the globe-trotting Naimi said recently after a visit to Hong Kong. All sources of oil will be welcome, because thanks to Asia global demand isn't going to stop rising soon, runs his argument.

It can be hard to grasp quite how important Aramco remains to the world's economy. As supplies collapsed in Libya, Syria and South Sudan and sanctions hit Iranian oil exports, fluctuations in Saudi supply have been crucial in preventing a price spike in the past two and a half years. Unconventional oil producers in North America have Naimi to thank for their profitability, too. When prices have threatened periodically to stay below the kingdom's preferred $100-barrel price range – a level that would begin to threaten unconventional supply – Aramco has reined things in.

Aramco's sway over the oil market makes some people nervous. What if things go wrong? Iran is believed to have been behind the Shamoon virus that shut down thousands of Aramco computers last year, crippling internal communication and possibly deleting some drilling and production data. Some Saudis and American strategists think Iran could threaten Saudi infrastructure if it were ever attacked by Israel or the US. The prospect of unrest in the Eastern Province, home to Aramco's Dhahran headquarters, most of its oil, and also Saudi Arabia's restive Shia minority, is often cited as a threat to the kingdom. Security has been tight ever since a local Al Qaeda-linked group massacred foreigners in Al Khobar in 2004, though terrorists attempted (and failed) with another attack in 2006, on Aramco's Abqaiq processing facility.

Kingdom Tower: A symbol of Saudi Arabia's oil wealth

While analysts say Saudi Arabia's problems are mounting -- youth unemployment, demographic changes, an ailing king and unclear succession – Aramco has remained an anomaly. Technically astute, well-managed and staffed with highly paid foreigners and bright Saudis (including women, who are allowed to drive in the company compound), the state firm resembles nothing more than a Western major, albeit with crude reserves beyond any international oil company's (IOC) dreams.

There are other threats to the company, though. A report last year from Citi, a bank, claimed Saudi Arabia could soon run out of oil to export. About a quarter of Aramco's oil output is already consumed domestically, much of it to feed power generators. But with electricity demand rising by 8% a year, said Citi, "if nothing changes Saudi may have no available oil for export by 2030".

The caveat was crucial, because the kingdom isn't going to watch its lucrative oil-export business die slowly. Eroding subsidies that make Saudi oil and natural gas prices among the cheapest in the world would be the obvious answer – though managing that transition while the ruling Saud family frets about any signs of unrest will be difficult. "Powerful groups within the country as well as the poor currently benefit from the status quo, so opposition to price rises would be strong," said a research paper from Chatham House, a UK think tank, on the question of fuel-subsidy reform.

Cleaner energy

The government is also developing an efficiency master plan. According to another paper from Chatham House, the kingdom's plan to introduce clean energy and efficiency measures could cut oil and gas demand from 4% to 2.8% between now and 2025. "This would result in savings of between 1.5 million and 2 million barrels of oil equivalent per day – a volume which roughly matches what the country needs to maintain the spare crude capacity so critical to global markets," the authors write.

For now, supply-side solutions are the answer. Proposed nuclear power would cut into the crude-oil burn in generation (though Citi wonders how the reactors would be kept cool in the desert). Just as important are Aramco's efforts to find more natural gas. This is having some impact: the kingdom used less oil in generation in the first quarter of this year than in the same period last year thanks to more gas in the system.

That included the Karan project, Aramco's first non-associated gasfield, which came on stream early (and below budget) last year, reaching 1.8 bilion cubic feet a day (cf/d) in the summer. On its own, Karan increased the kingdom's gas production by almost a fifth. Another project, the Wasit gas programme, is in the works, too. It will lift Saudi gas processing capacity by 40%, handling 2.5 billion cf/d from the Arabiyah and Hasbah fields.

Broader strategic gas plans have been less successful. Efforts to bring IOCs into the Saudi upstream to explore for gas earlier in the century foundered. ExxonMobil believed the non-associated reserves to be insufficient to justify the risks; an argument in Beverly Hills between then-chief executive Lee Raymond and Naimi eventually led to the oil ministry pulling back on the upstream opening.

Lukoil and Shell have remained to explore the Empty Quarter. The Russian firm has found some tight gas at the Tukhman field. Shell and Aramco want to develop a discovery at the Kidan field. The underwhelming progress in the desert has prompted Aramco to scour further afield and revisit older projects, such as the Midyan onshore gasfield, in the northwest, which was first drilled in the early 1990s. It is also targeting offshore fields in the Red Sea. Last year, Aramco said it found two new gasfields and one oilfield.

But without access to the international market through exports, investors can only sell their gas locally, for just $0.75 per 1,000 cubic feet. Unless that changes, they won't stay – especially given good alternative destinations for capital elsewhere. Aramco agrees, but Saudi Arabia's state petrochemicals company, Sabic, is a powerful lobbyist on behalf of the kingdom's dirt-cheap gas prices, which it believes will keep its business competitive against rivals in the US. Aramco may need to win that argument if it is to lure expertise into its sector to unlock some unconventional gas reserves, which Naimi says amount to 600 trillion cf, or double the conventional reserve base. With some help from oilfield services firm Schlumberger, Aramco has been drilling in the northwest of the country, but the reservoirs are deep with low permeability.

In conventional oil, though, Saudi Aramco is one of the few NOCs capable of bringing big, complex projects on stream on its own. In April, output at the Manifa heavy oilfield came on line (three months before planned). Its production will rise to 900,000 b/d by the end of the year, says Aramco, and keep total output capacity steady. The $17 billion development kicks off $35 billion more upstream spending in the next five years, which should include another 500,000 b/d from the Khurais and Shaybah fields. The new developments mean the kingdom should retain the 2 million b/d buffer between supply and capacity that is so important to global oil markets.

And where Aramco teams up with the majors – always in the downstream -- it tends to make a splash. A 50% joint venture with Shell in the Motiva refinery, in Texas, recently brought on line 325,000 b/d of new capacity, making the 600,000 b/d plant the biggest in the US (including Motiva's Norco and Convent plants in Louisiana capacity is 1.1 million b/d). Shipments to Motiva in part explains the uptick in Saudi sales to the US in recent months.

Table 1: Saudi Aramco by the numbers

Oil reserves:	260.2 billion barrels
Gas reserves:	284.8 trillion cubic feet
Oil production capacity:	12 million b/d
Gas production capacity:	13.23 billion cf/d
Oil production (2012):	9.5 million b/d
Gas production (2012):	10.72 billion cf/d
Global refining capacity:	4.495 million b/d
Ownership:	Fully state owned
Chief Executive:	Khalid Falih
Headquarters:	Dhahran
Employees:	54,000

Indeed, content simply to maintain the world's biggest crude oil export capacity, Aramco's focus is increasingly on the downstream, including selling power in the kingdom. With Dow Chemical, it is also building a large new petrochemicals facility in Jubail, in the Eastern Province. A new trading strategy is emerging, too. Integrating its oil exports with refineries in North America and Asia – where Aramco has refineries in China, Japan and South Korea giving total throughput of about 1.3 million b/d, and plans to expand capacity and build new plants in the region – gives the company a hedge against price movements and a lucrative stake in the world's biggest consumer markets. Motiva could even handle Canadian oil, if the bitumen ever makes its way to the US Gulf, allowing Aramco to direct more supplies to Asia.

But Aramco Trading, a new division of the company, will also allow for more flexibility in the parent company's marketing. This may include sales of products into the spot market, not typically the destination for Aramco crude. New refining capacity in Saudi Arabia, including a partnership with Total at Jubail, another with Sinopec at Yasref, and the Yasref plant, will all be online in the next three years, adding 1.2 million b/d to its capacity. That will be part of a global rise in product supplies that the International Energy Agency says will transform international trading patterns.

Aramco Trading will be a key player in that shift – and its rise will be another reminder that, for all the talk of threats to its hegemony, Aramco remains astute enough to stay ahead of global oil trends. In control of the world's biggest oil reserve, which it can produce cheaply while shuffling projects depending on the priority, and with new flexibility in the downstream Aramco is the last NOC that will be troubled by shale. **DB** ●