Summary

• Growing oil demand in Asian importing countries is not matched by domestic supply and, over the last decade, Asian national oil companies (ANOCs) have been rapidly acquiring stakes in exploration and production projects abroad.

• These trends are commercially driven, although they offer the potential for important political and economic gains both to the Asian governments and to those of host oil-exporting countries.

• ANOC investment is challenging the conventional private international oil company (IOC) business model. ANOCs’ advantages over IOCs include their willingness to engage in downstream projects, probable lower costs of capital and risk, and the strong diplomatic and economic support they receive from their governments.

• The effect of these investments on the global balance of energy security is marginal, and may even be positive. Control of the resources remains with the exporting-country governments.

• Some ANOCs and their governments do not carry the obligations on governance, human rights and social and environmental responsibility expected of IOCs and OECD governments. This raises questions about the impacts of their operations and development packages on host countries, especially in Africa.
Introduction

Asian national oil companies (ANOCs) are seeking and acquiring oil and gas exploration and production assets around the world, in competition with international oil companies (IOCs) and with one another. They are also forging strong relationships with the national oil companies in producing countries, some of which are investing in refineries in Asian markets. These trends are commercially driven. In countries such as China and India, where national oil consumption is soaring, the state oil companies face the challenge of maintaining growth and profits, improving domestic oil recovery and diversifying sources of imports. ANOCs are also supported by their governments’ policies, including broader economic and diplomatic interests. This synergy of commercial and political interests has led to a perception, among Western observers, of an aggressive expansion of the Asian sphere of influence in resource-rich nations. As such, it has attracted the attention of oil market analysts, the media, human rights organizations and development agencies, concerned about the energy security, geopolitical and social implications of these new investment models.

This Briefing Paper examines the key drivers, characteristics and strategic approaches shaping foreign oil investment by companies from China and India (oil-exporters and -importers), Japan and South Korea (mainly oil-importers), and Malaysia, Asia’s largest oil exporter. It describes the differences between the companies and their relationships with shareholder governments, and considers what advantages they might have over IOCs, particularly in terms of meeting host government needs. Finally, this paper raises questions about investment in developing countries by ANOCs that are less constrained than European or US companies by commitments to human rights and corporate and environmental responsibility.

Sources, unless stated otherwise, are detailed in the Chatham House Report Trends in Asian National Oil Company Investment Abroad, available at www.chathamhouse.org.uk/AsianNOCs.

Key drivers: Asian demand outgrows Asian oil resources

For several decades, Asian oil demand has exceeded, and outpaced, Asian oil production. Since 2000, consumption has increased by 25%, while production has been almost static. The region as a whole has become more dependent on imports from the rest of the world, though the trends and importance of oil in the energy mix vary from country to country. In China, the region’s largest consumer, oil consumption has increased by 46% since 2000, while production has increased by only 12%. China has been a net importer since the mid-1990s and by 2005 was importing 44% of its consumption. Between 2000 and 2005 India’s consumption increased by 10%, with production almost static (it imported 70% of its consumption need in 2005). While India’s consumption is currently just over one-third of China’s, it is worth noting that India’s population is growing faster and its hydrocarbon requirements are predicted to almost triple by 2025. Among the main importing countries, consumption fell by 4% in Japan (and is expected to continue falling) and has been roughly static in South Korea. Malaysia is still a net exporter, with a 10% increase in production outstripping the 8% rise in consumption.

FIGURE 1: ASIAN OIL


The economic impact of oil imports varies between Asian countries. In 2005, India’s net imports of crude oil and petroleum products were equivalent to over one-third of its exports of goods and services; for Japan and South Korea the proportions were 12% and 13% respectively, while only 7% of Chinese exports were needed to pay for oil imports.

Energy security: the concern of governments

Economics do not fully explain Asian governments’ reaction to rising oil imports. Like their counterparts in the US and Europe, governments of Asian importing countries worry about the risks of interruptions to supply from unstable countries, monopolistic pricing by dominant supplier countries, and the prospect of eventual resource scarcity. East Asian importers worry additionally about the risks of attacks or blockades of Southeast Asian sea lanes. Foreign equity crude cannot dissolve all insecurities – its production is not exempt from political disruption in the exporting country, war, piracy, terrorism or UN sanctions – but diversification can help reduce the overall risk.
Asian governments promote a variety of policies to diversify oil supplies, encourage the use of substitute fuels, and develop and apply technologies which use oil and other hydrocarbons more efficiently. The US and European importing countries, while having similar objectives, do not have state oil companies or policies specifically designed to encourage private-sector companies to invest in foreign equity supply for domestic use. Rather, such investments have, on their own, contributed to the general availability of oil supply to the world market or Europe.

How much supply security can foreign investment bring?

Asian governments wish to achieve security of supply – but how much security can they actually get through foreign investment? In normal conditions, the trade in crude oil is free of tariffs and import and export quotas. Most oil exporters, and the main Asian oil-importing countries, are members of the World Trade Organization (WTO), which prohibits discrimination between markets. Most trade is carried out between exporting companies (including state companies) and unrelated importing companies. Prices are set by agreed reference to prices in the London and New York commodity markets. The market acts fast to allocate oil to the customers prepared to pay the highest price. However, conditions are not always normal. During the oil surpluses of the 1980s, Saudi Arabia allowed discounts to the US companies that were its partners in Aramco to allow their refineries to compete with international product prices; the purpose was to protect the Saudi share of the world oil market without driving down the price of crude oil in the open market. Now that Saudi Arabia is a member of the WTO, these kinds of actions may no longer be possible.

There is an additional market imperfection for OPEC exports to Asia: the majority of exports to Asia are supplied by NOCs in the Middle East whose contracts prohibit the resale of the crude supply. Without this flexibility, and in the absence of sufficient supplies of uncontracted crude, no commodity market has developed in Asia. This has two consequences. First, for many years the Middle East oil exporters have intermittently earned an ‘Asian premium’ of up to $2 per barrel from exports to Asia, compared with their exports to Europe and the US. Secondly, if supply is disrupted and there is no spare production capacity, the major suppliers’ prohibition on reselling, combined with the lack of a liquid commodity market, frustrates the rapid reallocation of oil from haves to have-nots. By contrast, Asian importing NOCs would not face such restrictions to their own foreign crude production. This means that in a time of disruption, control of marginal barrels of oil would allow Asian NOCs to acquire oil by trading and exchanging short-term supplies on the markets.

Some Asian countries have sought to develop an additional measure of security by working with Middle East producers, such that the exporting NOCs invest in refining and marketing in the importing country. Exporting NOCs want security of demand for

Asian Government Policy on ANOCs

In China, the first overseas investments by CNPC (China National Petroleum Corporation) in the early 1990s preceded any formal policy of government support. While the government does not set quantitative targets for its companies’ foreign equity oil, its political support for Chinese NOCs’ overseas investments has increased substantially in the last decade. The government values Chinese companies’ direct investment in foreign resources, not only as a protection mechanism for supplies to the country’s growing industry and population, but also for its role in providing the Chinese economy with a potential alternative to investing the growing foreign exchange surplus (now estimated at around $1,000 billion) in foreign financial assets.

In India, the government mandates its NOCs to source equity oil overseas to meet future demand. For its part, ONGC (Oil and Natural Gas Corp Ltd) has given its overseas arm, ONGC Videsh Ltd (OVL), the objective of acquiring 60 million tonnes of oil equivalent (mtoe) per year by 2025 – a tenfold increase – with 20 mtoe/year to be achieved by 2010.

In Japan and South Korea, national oil companies were created after the oil shocks of the 1970s. JNOC (Japan National Oil Company) provided equity, loans, guarantees and tax breaks for Japanese companies. The Japanese National Energy Strategy of June 2006 announced that the volume of the crude oil produced through Japanese corporate interests should reach 40% of the country’s total crude oil imports by 2030 (compared with the current 15% and an earlier target of 30%). Since Japanese oil demand is falling, this implies a doubling of Japanese companies’ overseas oil production. For South Korean companies, the target within the same period is 35%, a huge increase from just 4.1% in 2005.

In Malaysia, the government endorses the PETRONAS (Petroliam Nasional Berhad) initiative of developing the company as a multinational, supplying foreign oil, gas and refined products to the growing Asian and international markets.
their crude and the flexibility to shift oil between crude and products markets for the best short-term results. Under certain conditions, the exporters’ crude price to joint venture refineries may be discounted to enable them to compete with international prices, or to meet controlled maximum prices in the importing country.\footnote{11}

**How much price security is attainable?**

Asian investments in exporting countries are likely to have only a small impact on price security. The prices Asian companies apply to their exports from foreign investments cannot easily differ significantly from the international price. Even with similar prices, the profit margin may indeed be higher if the Asian company can take advantage of lower costs of Asian finance, capital equipment, and supply contractors. Profits that Asian NOCs earn ‘upstream’ in the exporting country are, however, subject to the exporting country’s taxes and royalties, which normally take 80–90% of the economic rent of oil exports.

In the longer term, Asian companies’ investments might increase the total world supply of crude, or increase its diversification, through investment in countries which would otherwise develop their export potential more slowly. This could marginally affect the long-term price of oil, to the benefit of all importing countries, including Asian countries.

**Corporate growth is the real motivation**

Overall, the energy security benefits of ANOC investment abroad, or exporter NOC investment in Asia, are marginal. The core drivers for the ANOCs – most of which compete with one other or with foreign companies at home – are the commercial opportunities for profits and capacity growth. Growth is a strong objective. Size counts in domestic politics and markets and in the status of the management. But for the oil-producing ANOCs, the prospects for both volume and profit growth from domestic operations upstream are limited by reservoir depletion and the difficulty of finding new oil. Overseas upstream investment provides an opportunity to supplement slow upstream growth at home and, when world oil prices are lower than domestic production costs, reduce costs. Most ANOCs are also committed to importing oil for their downstream operations from a world market which may be disrupted. Foreign upstream investment is a rational response to these constraints so long as opportunities are available and the ANOCs have some competitive advantage abroad.

**Who are the ANOCs and what drives them?**

In order to better understand the drivers and different approaches of the ANOCs, it is important to look at their pattern of ownership, their domestic experience, mandate, and relative size. For example, listed companies will have some obligations to their minority shareholders which may constrain certain investment but enable greater strategic autonomy from government. Those ANOCs that are major domestic producers (China, India and Malaysia) will be looking to grow into competitive multinationals. They may also be able to offer complimentary investment opportunities to host country NOCs. Companies whose business is primarily international (Japan, South Korea) may be under greater pressure to deliver government targets for foreign equity.

In China, the principal state companies are not listed but have listed subsidiaries (see Table 1) with institutional and private minority shareholders. The two principal companies, CNPC (including PetroChina) and Sinopec (China Petroleum & Chemical Corporation), are integrated companies, with CNPC/PetroChina having the heavier weight upstream. CNPC/PetroChina’s international operations have a complex structure. Until mid-2005, most of CNPC’s overseas assets were held through an international arm, CNODC. A large share of overseas assets was then transferred into a new company called NewCo, with CNPC and PetroChina each holding 50% of the shares. After that deal, most of the overseas assets could be considered jointly held by CNPC and PetroChina, while some assets, such as operations in Sudan, are held entirely by CNPC. A third company, CNOOC (China National Offshore Oil Corporation) specializes in offshore operations with foreign partners in China, as well as abroad.

The traditional business boundaries between the three Chinese NOCs are being eroded outside China as CNPC and Sinopec move into offshore projects, while CNOOC is entering the onshore business. CNPC, Sinopec and CNOOC are also competing for liquefied natural gas (LNG) projects, while CNOOC is building refining capacity.

There are also other actors involved in overseas equity investments. Sinochem, the company that historically had a monopoly on China’s oil trade, and CITIC (China International Trust & Investment Corporation), the main state investment fund for investment abroad, have both been investing in foreign upstream projects. Overseas investment is also mooted by a consortium of small Chinese private companies: the China International Petroleum Investment Union (CIPIU), the Great United Petroleum
Holding Company Ltd (GUPEC), a private downstream petroleum group, and recently the Chinese Petroleum Investment Fund Management (CPIFM).

In contrast to these strong corporations, the responsibility for oil policy among different government agencies is divided; hence corporations can drive their own agendas.12 The listed companies generate and retain their own cash flow, although in principle foreign investments over $200m require review by the National Development and Reform Commission (NDRC) approval by the State Council.13

In India, there are several large national oil and gas companies, all of which are involved in foreign upstream projects. The main state companies working abroad, with the exception of the upstream NOC, Oil India Ltd (OIL), are listed, with some non-government shareholders. ONGC and the Indian Oil Corporation Ltd (IOCL) are major upstream and downstream companies respectively.14 ONGC operates outside India through a subsidiary, ONGC Videsh (OVL). In the last few years, IOCL, OIL and GAIL India (the state gas company) have also moved into the international upstream, some in partnership with OVL or with one another. In 2005, OVL joined with Indian private-sector company Mittal Steel to create a joint venture overseas exploration and development company, ONGC Mittal Energy Ltd (OMEL). Two regional downstream state companies, Bharat Petroleum Corporation Ltd (BPCL) and Hindustan Petroleum Corporation Ltd (HPCL), the Gujarat State Petroleum Corporation Ltd (GSPC), and India’s major private-sector refining company, Reliance, have also gained equity in foreign oil blocks.

A relationship of mutual interest links India’s NOCs (they work alongside one another at home, and ONGC, IOCL and GAIL, which are all listed on the Bombay Stock Exchange, hold shares in one another’s stock). For the long term, each company appears keen on greater integration in order to improve its profits and increase stability.

In Malaysia, PETRONAS is 100% state-owned, but has a strong corporate mission of growth in the face of competition at home and abroad, with only broad strategic direction from the top level of government.

In Japan the government decided in 2002 to dissolve JNOC, the national company, some of whose assets were injected into newly listed companies including INPEX and JAPEX and other private companies. INPEX was also charged with some of JNOC’s former investment functions. In 2004, the government established JOGMEC (Japan Oil, Gas and Metals National Cooperation) as a governmental investment and technical support vehicle. About 70 private Japanese companies have overseas investments in oil supplies and some 30 of them imported around 0.5 mb/d of their equity oil in 2005.

In South Korea, the Korea National Oil Corporation (KNOC) is a simple model of a state company devoted entirely to developing upstream oil supplies abroad, and to managing the country’s strategic petroleum reserve, without competition from other South Korean companies in either the oil or financial markets.

This survey shows that the ANOCs are diverse and are developing and adapting to competition. Direct comparisons are difficult. PETRONAS operates in competitive markets, with international pricing, both at home and abroad. Its ratio of profits to employees is within the range of many international oil companies. The Chinese and Indian companies, with their large domestic refining, distribution and retail activities, in controlled markets with controlled prices, are not in a comparable position. The two main Japanese companies exploring overseas do not engage in refining and marketing, though there a number of small overseas investments by Japanese trading companies and private-sector companies with downstream operations in Japan. By various ratings, CNPC/PetroChina, PETRONAS, Sinopec and ONGC are ranked among the world’s top 50 oil and gas exploration and production companies.15 CNPC/PetroChina is the eighth largest producer of oil and the twelfth largest producer of gas.

This diversity makes it difficult to draw strong conclusions from a comparison. The net profits of the listed companies reflect their capital structure (typically, the state companies have low debt) and

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<th>TABLE 1: COMPANY PROFILES</th>
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<td>Company</td>
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<tr>
<td>MALAYSIA</td>
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<td>PETRONAS</td>
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<td>CHINA</td>
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<td>Sinopec Corp.</td>
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<td>ONGC (consolidated)</td>
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<td>OIL</td>
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<td>JAPAN</td>
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<td>INPEX Holdings**</td>
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*After tax and minority interest in almost all cases. ** Includes Teikoku Corp.

Sources: Company annual reports and websites, see also Trends in Asian National Oil Company Investment Abroad.

Note: Results are for year ending 30.12.05 or 31.3.06. Definitions and accounting practices are not necessarily consistent. Conversion to US$ at interbank rates at the end of the company’s accounting period. Note that data in China, India, and Japan refer only to listed companies with state control or part ownership.
taxes which vary between functions and countries. The employee numbers are striking. PETRONAS’ ratio of employees to barrels of oil production is similar to that of major international oil companies. PetroChina has almost as many employees as the top five private-sector international companies combined, with a fifth of their combined volume of oil production, and eight times as many employees as Saudi Aramco, the world’s largest producer of oil.

Table 1 gives some key statistics for 2005, illustrating these differences for the major companies in our study.

What have the ANOCs got?

The distribution of volumes of oil production, refining, and gas production between the companies reflects their relative size, without the complication of pricing, interest costs and taxation (see Figure 2). Figure 2 also shows that these Asian NOCs reported total production of 5.2 million barrels per day (mb/d) of liquids for the financial year 2005–06. Of this, about 1.1 mb/d was equity oil from projects outside the home countries of the companies concerned; Chinese NOCs accounted for an estimated 0.55 mb/d of that.\(^\text{16}\)

How important is investment abroad for the Asian companies?

The amounts of foreign oil produced as a result of ANOC investment abroad vary, but are significant to the investor in almost every case. In Malaysia, PETRONAS’ foreign crude production is about 26% of its total oil production, and equivalent to about 22% of Malaysian oil consumption in 2005. In 2005, Chinese NOCs foreign equity production was equivalent to about 16% of Chinese oil imports of 3.4 mb/d.\(^\text{17}\) In addition to their own production, Chinese companies imported oil purchased from partners and host governments; Angola supplied 0.5 mb/d to China in 2006, a similar volume to Saudi Arabia’s. Chinese production from Sudan and about a quarter of equity production from Kazakhstan were brought to China. Asian NOCs’ oil from more distant sources such as Peru and Venezuela is generally sold on the world market.

Japanese companies (including downstream and trading companies not shown in Figure 2) produced about 0.7mb/d of foreign equity, equivalent to nearly 17% of Japanese imports of crude oil in 2005.\(^\text{18}\) Indian 2005 overseas oil production of about 0.09 mb/d was equivalent to a little over 5% of Indian net oil imports.

Indian and Korean ANOC production was much smaller. KNOC’s 0.05 mb/d of equity crude supplied about 2% of South Korea’s oil imports in 2005. Abu Dhabi’s International Petroleum Investment Corporation (IPIC) and Saudi Aramco have equity stakes of 0.3 mb/d and 0.07mb/d respectively in South Korea’s private-sector refining capacity.

The future

It can be expected that future production from ANOC foreign investments will increase. Production from Chinese interests in known projects under development could add 300,000 b/d to these figures by 2009–13, and an additional 150,000 b/d if Sinopec’s contract for development of the Yadavaran field in Iran goes ahead. This would bring the total for Chinese companies to around 1 mb/d. However, this amounts to less than the projected increase in domestic consumption and only about 2% of projected world trade in oil.\(^\text{19}\) These figures exclude any results of the future discoveries and acquisitions which the Chinese, like all other oil companies, hope to achieve.

The other ANOCs all have shares in projects under development, the future potential of which is hard to gauge. INPEX had a share in the major Azadegan project in Iran – now suspended; Japanese and Indian companies have acquired substantial exploration acreage in Libya; ONGC and the Japanese joint venture Sodeco\(^\text{20}\) own stakes in Sakhalin 1. ONGC has a record of work in Iraq which may bring it back to that country’s large development and exploration opportunities.

Source: Data from annual reports where available; see also endnote 16.

Note: Results are for the year ending 31.12.05 or 31.03.06 (in the case of Inpex Holding, including data for both fiscal year-end dates). JAPEX and Inpex also produce oil from Japanese fields but this amount is so small that foreign and total production are shown as equal.
Opportunities to engage more with oil-exporting countries

ANOCs’ strategies vary, as do their capacities. As is normal in the oil industry, most of the current ANOC production comes from a few large projects. Oil companies’ strategies are shaped by their access to such opportunities and the Asian companies are relative latecomers on the scene.

Access to some important oil-exporting countries is limited; in some – Saudi Arabia, Kuwait and Mexico – the local NOC has an absolute monopoly upstream. However, as the results of the Saudi gas initiative in spring 2004 suggested, Asian NOCs may prove the more attractive partners if and when open bids take place.21 In others, such as Iran and Venezuela, the terms for foreign investors are severe. Current conditions in Iraq do not allow the resumption of investment and the terms for foreign companies remain to be determined. Opportunities exist in Russia, subject to the role of Rosneft, now effectively the Russian state oil company. CNPC and PETRONAS both took small equity stakes in Rosneft when it raised its initial public offering (IPO) in July 2006. In the US, Canada, the UK and Norway, opportunities are limited to company acquisitions, the Canadian oil sands, or high-technology, very deepwater exploration, in which Asian company experience does not match that of established private-sector companies. West and North African countries may currently offer the most attractive terms to new investors, but large investments are often necessary because the infrastructure to support operations in many of these fields is lacking.

Strategic focus: which projects?

Asian NOCs are involved in very few of the world’s largest currently producing projects. The lack of opportunity to invest in easy access reserves has led them to develop a large portfolio of smaller, usually higher-cost or higher-risk projects. This is especially true of the Chinese companies which aim at large volumes. Chinese NOCs also have a greater interest in such projects than the major IOCs because they are keen on ‘learning by doing’.

Asian NOCs have secured access to significant volumes of oil and gas in Kazakhstan (CNPC), Sudan (CNPC, PETRONAS, ONGC), Sakhalin (ONGC) and potentially Iran (CNPC and Inpex). Future development projects and major exploration projects are attracting Chinese investment, in particular to Angola (Sinopec) and Nigeria (all three Chinese companies). Sinopec and INPEX agreed to develop two potentially large oilfields in Iran (Yadavaran and Azadegan) but both contracts are in suspension at the time of writing because of disagreements over the terms.

There is a wide range of over 200 smaller development projects and exploration ventures. CNPC has 74 projects (out of a total of 122 Chinese company projects abroad) in 23 countries, a similar number to some of the major international oil companies. In some countries, the major ANOC activity is a gas project.22 CNPC has also expanded production by acquiring companies (PetroKazakhstan, a Canadian company), company assets (Encana’s in Ecuador, PetroCanada’s in Syria) and an equity shareholding in small regional companies. Trends in Sinopec, with 31 projects, succeeded in buying TNK-BP’s equity in Udmurtneft, with Rosneft as the obligatory 51% partner. Host country political opposition frustrated CNPC’s attempts to purchase Slavneft in 2002, and CNOOC’s bid for Unocal in 2005.23

From India, ONGC Videsh operates in 15 countries, and its oil and gas projects include shares in major developments: the Exxon-led Sakhalin 1 and the White Nile Oil Production Company (with PETRONAS) in Sudan; it also bid (unsuccessfully) with Mittal Steel to acquire PetroKazakhstan and has since teamed up with Chinese companies to acquire small producing assets in Syria and Colombia. Japanese companies vary: Japex and Inpex are focused on access to relatively large prospects in the Middle East and Central Asia (Azeri-Chirag-Deepwater Gunashli and Kashagan, mainly for oil) and Indonesia and Australia (mainly for gas). PETRONAS, less driven by volumes, appears to focus on prospects which will employ its expertise – it aims for operatorship where possible – and enhance its profits, often providing opportunities for greater integration.

Key countries

Since 2000, the upward trend in oil prices has created incentives for new exploration and development wherever the potential exists. Oil is currently being produced or explored for in nearly 100 countries. Asian NOCs are active in over 40 of these (Chinese companies in 37). In the 20 countries which together contain over 90% of known oil, Asian companies are active in 12. Of the 25 countries which are estimated to contain 90% of the undiscovered oil, Asian companies are active in 16.24 However, of 142 new projects of over 40,000 bd expected to be on-stream by 2010, Asian companies have shares in only nine.25 The map shows that Asian oil companies’ interests are greatest and most varied in Sudan, Nigeria, Kazakhstan, Indonesia and Iran. This reflects a combination of opportunities and the Asian companies’ competitive advantage in those countries.
Asian NOC investments in foreign upstream oil assets

- Asian NOC investment in a producing asset (includes Petronas and CNPC shares in Rosneft)
- Asian NOC investment in exploration and development asset (no production or production unknown)

**Note:** Each spot represents an investment in a project by an Asian NOC (or NOCs from the same country). More than one NOC from different countries may be investing in the same project so this will show up as multiple spots

**Source:** Chatham House Report *Trends in Asian National Oil Companies Abroad*.

### Asian advantages

**Money**

There have been suggestions that Asian NOCs are paying more for oil and gas assets than the economics justify. Examples of early investments in Venezuela and the Canadian oil sands are sometimes quoted. The most striking example is CNOOC’s US$18.5bn bid for UNOCAL in 2005, against a Chevron offer of $16.6bn (CNOOC withdrew its offer after US congressional opposition, and Chevron paid $17.3bn). There are several potential reasons why Asian NOCs are able or willing to pay more than IOCs for upstream assets abroad.

- They may have a lower cost of capital, because their domestic interest rates (especially Japan and China) are structurally lower than in the US and Europe.
- Government shareholders may require a lower dividend payout and lower returns.
- There may be direct government participation in projects (as in Japan, through JOGMEC), although this may also be an obstacle when the company’s capital requirements fall within the state budget constraints (as in India and South Korea).
- A state-owned corporation may be prepared to take risks that would count against the project for a private-sector company.
- They may take a different view of future oil prices to that of IOCs.
- As latecomers, they may consider it justifiable to pay an ‘entry premium’.
- They may lack the relevant contextual and technical experience to evaluate the prospect.

Asian home governments also offer export credits and, in some cases, political risk assurance to industrial and service companies carrying out work on ANOC or other projects in the oil-exporting countries. Whether these terms are more favourable than those offered by OECD countries (including Japan and South Korea) is difficult to determine.

It is hard to evaluate these economic advantages without knowledge (usually not available) of comparable offers for projects from competitors.

Overall, the scale of overseas spending by Asian companies has not been high. Table 2 shows an estimate of capital expenditure by Chinese companies in overseas projects during 1995–2005, as revealed by media reports. From these limited data, it seems that during the last decade, Chinese companies invested at least $27bn in overseas upstream projects (for comparison, the major US companies together invested $29.8bn in foreign upstream activities in 2004 alone). It is not possible to estimate profitability from public data.
with producing-country governments. For example, diplomatic activity benefits their NOCs in negotiations. There is a general perception that Asian governments’ petrochemical ventures in China. If these are partnering with Sinopec in two separate refining and exporting country. Saudi and Kuwaiti NOCs are links which may enable ANOC investment in the domestic market. This can bring a measure of ventures back home where they, rather than IOCs, NOCs opportunities to invest downstream in joint projects to be independent, profitable and linked to retail market opportunities, which are often closed to foreign companies in oil-exporting countries. In some cases, an overseas refinery may increase profits for the foreign companies in oil-exporting countries. In some countries – particularly in Africa and the Middle East – these new investors are perceived to carry less ‘imperialist’ baggage than Western governments or companies. Some host governments are attracted by the fact that some Asian government agencies and financial institutions do not apply conditions regarding transparency and external monitoring of operations affecting human rights and ethical issues to loans and aid packages connected with upstream deals. Conditions on these points are normally attached to credits from international financial institutions such as the IMF, International Finance Corporation, European Bank for Reconstruction and Development and World Bank. Similar restrictions are applied by (mainly European and US) private-sector lending banks which subscribe to the ‘Equator Principles’ on environmental impacts. Most major European oil companies subscribe to the UN Global Compact which sets out voluntary commitments on human rights, US labour standards, the environment, and the prevention of corruption. Although 77 Chinese organizations subscribe to the Global Compact, CNPC, PetroChina, and CNOOC are not among them. IOCL and Oil India Ltd are

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<thead>
<tr>
<th>NOC</th>
<th>Total</th>
<th>Africa</th>
<th>MENA</th>
<th>RCA</th>
<th>Asia</th>
<th>S &amp; N America</th>
</tr>
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<tbody>
<tr>
<td>CNPC</td>
<td>15,440</td>
<td>2,598</td>
<td>795</td>
<td>9,159</td>
<td>810</td>
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<td>SINOPEC</td>
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<td>444</td>
<td>4,220</td>
<td>21</td>
<td>550</td>
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<tr>
<td>CNOOC</td>
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<td>972</td>
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<tr>
<td>TOTAL</td>
<td>27,178</td>
<td>7,989</td>
<td>1,259</td>
<td>13,379</td>
<td>1,803</td>
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</tr>
</tbody>
</table>

Note: No capital expenditure details could be found for some projects.

Vertical integration
ANOCs appear more willing than international companies to invest in refining and infrastructure projects to secure host government agreement to upstream licences and asset acquisitions. Refining is particularly desirable to African producers, many of whom have to import petroleum products because they lack the domestic capacity. CNPC is involved in such arrangements in Algeria and Sudan, ONGC (as part of OMEL) in Nigeria, and PETRONAS in Sudan. Asian companies are also partners in pipeline projects in Central and North Africa, Central Asia and Thailand. The economics of supplies to local refineries are often uncertain, owing to price controls on refined products. International companies generally require refinery projects to be independent, profitable and linked to retail market opportunities, which are often closed to foreign companies in oil-exporting countries. In some cases, an overseas refinery may increase profits for the Asian NOC by allowing it to sell its products on international markets, rather than on a subsidized domestic market.

Importing ANOCs are often able to offer exporting NOCs opportunities to invest downstream in joint ventures back home where they, rather than IOCs, dominate the market. This can bring a measure of supply security, possible price benefits and bolster links which may enable ANOC investment in the exporting country. Saudi and Kuwaiti NOCs are partnering with Sinopec in two separate refining and petrochemical ventures in China. If these are successful, foreign shares of Chinese refining capacity will total some 360,000 b/d, equivalent to a further 10% of the oil deficit and over half of Chinese NOCs’ foreign equity oil production in 2005. The figures underestimate the supplies secured by investment, because in such partnerships the exporting NOC often commits to a long-term crude supply contract.

National integration
There is a general perception that Asian governments’ diplomatic activity benefits their NOCs in negotiations with producing-country governments. For example, the Chinese government’s willingness to provide investment or grant aid for other development projects (such as a railway line and power station in Angola), and in some cases a willingness to sell arms (as in Angola and Sudan), will clearly increase a Chinese NOC’s prospects in a country. Likewise, India has focused development lending initiatives on the resource-rich countries of West Africa whose NOCs are keen to gain deals. Official visits from high-level Asian statesmen have often sealed cooperation agreements which provide a political framework for oil negotiations by the NOC.

Wider politics have sometimes interfered with ANOC plans: initiatives such as CNOOC’s interest in acquiring the US company UNOCAL, CNPC’s interest in the Russian company Slavneft, and INPEX’s interest in the Azadegan project in Iran have been frustrated by political interests. In a few countries such as Sudan and Burma, sanctions, shareholder pressure and political opposition have limited competition from North American and European companies and therefore presented lucrative opportunities for ANOCs.

Host country drivers
For host country governments, Asian NOC investments provide competition to other foreign investors. Moreover, they are more willing to engage in necessary, but less profitable, downstream, midstream and transmission infrastructure.

In some countries – particularly in Africa and the Middle East – these new investors are perceived to carry less ‘imperialist’ baggage than Western governments or companies. Some host governments are attracted by the fact that some Asian government agencies and financial institutions do not apply conditions regarding transparency and external monitoring of operations affecting human rights and ethical issues to loans and aid packages connected with upstream deals. Conditions on these points are normally attached to credits from international financial institutions such as the IMF, International Finance Corporation, European Bank for Reconstruction and Development and World Bank. Similar restrictions are applied by (mainly European and US) private-sector lending banks which subscribe to the ‘Equator Principles’ on environmental impacts. Most major European oil companies subscribe to the UN Global Compact which sets out voluntary commitments on human rights, US labour standards, the environment, and the prevention of corruption. Although 77 Chinese organizations subscribe to the Global Compact, CNPC, PetroChina, and CNOOC are not among them. IOCL and Oil India Ltd are
participants, while ONGC and Sinopec are listed as ‘inactive’ participants on the GC website.

There are also various political drivers for host country governments such as using Asian ‘soft money’ or equity investment to finance their own NOCs (Venezuela, Russia) or negotiating a percentage of ANOC acquisitions from other foreign investors (for example, the Kazakh NOC KazMunayGaz was reported to have negotiated the purchase of 33% of PetroKazakhstan from CNPC for $1.4bn\textsuperscript{32}).

**Home country political interests**

Home country political interests are playing an important role in these transactions. For the Chinese government, there is a wider political interest in supporting investment by Chinese companies to accumulate diplomatic support from African countries for China’s UN interests: preventing diplomatic recognition of Taiwan (now recognized by only six out of 53 African countries), UN reform, including the question of a permanent Security Council seat for Japan, human rights issues, and international sanctions against corrupt practices. China’s commitment to its relationship with Africa was visible at the China–Africa Summit in Beijing in November 2006, in which ‘a new type of strategic partnership’ was cemented in a declaration between China and 48 African leaders. In addition, $1.9bn worth of agreements between Chinese enterprises and African governments were signed and an action plan agreed which maps out China–Africa cooperation in politics, economy, international affairs and social development over the next three years.\textsuperscript{33}

Chinese companies are investing in Africa in mining, agriculture, fishing, power generation, telecommunications, and base metals. Light armaments are manufactured in Chinese factories in Sudan, Zimbabwe and Mali, and military exports and training are supplied to other African countries. Expansion of Chinese exports of manufactures, particularly textiles, has given rise to trade disputes in some countries.\textsuperscript{34} Chinese companies are also investing a variety of industrial and infrastructure projects in Iran, Sudan and Kazakhstan.

Petroleum is, however, the principal import to China from some countries. Crude oil imports from Sudan in recent years have fluctuated between 130,000 and 150,000 b/d, about a third of Sudanese production and a falling percentage of China’s growing imports. Imports from Angola rose to over 350,000 b/d in 2005 (about 30% of Angolan crude exports, and 14% of all Chinese crude imports). As new projects come on-stream, this share is likely to increase. In 2005, CNPC’s production accounted for over 20% of Kazakhstan production and over a quarter of Peru’s small output. PETRONAS’ investment was responsible for 40% of production in Chad and about the same proportion in Sudan. ONGC’s equity share accounted for over 20% of Sudan’s output. It is in these exporting counties that Asian, and specifically Chinese, petroleum investments may carry political weight, and arguably Asian companies and investors may have an advantage over European and US companies because of lighter commitments to issues such as human rights.

However, it is only in Sudan that no major European or US companies are active: in all other countries where Asian companies are investing abroad, the main foreign investors in the oil sector are companies listed in Europe or the US and participating in the UN Global Compact. The apparent advantages of Asian companies have not so far excluded other investors and their criteria.

**How much, how soon, what impact?**

The Asian oil companies covered in this survey produced an estimated 5.2 mb/d of crude oil in 2005, just over 6% of world production. Some 1.1 mb/d (around 1.3% of world production) was produced by Asian companies outside their home countries. Though these numbers will increase, they will still be small relative to the world total and to other producing areas. This growth will not reduce supplies to consumers outside Asia, because it will reduce Asian demand on other producers; Asian investments may even increase total world supply when they succeed in projects too costly or risky for European or US companies to undertake.

For competing private-sector companies, whose opportunities for upstream investment are limited by the dominance of oil-exporting NOCs, the growth of Asian companies abroad does represent serious competition. However, in only a limited number of cases have Asian companies gained a share in large investment or exploration projects. This situation could change if Asian companies gain significant positions in Iraq or Iran. If NOCs, together with other Asian companies, are perceived to develop monopolistic tendencies in these countries, Western industry lobbies – and possibly host country governments themselves – may respond with various tactics to try to counter ANOC dominance. Alternatively, more IOCs may team up with investment institutions to rival state-to-state deals or partner with Chinese companies in joint ventures.\textsuperscript{35}

At present there are several synergies between the new Asian investors and developing exporter countries. For the home governments of the Asian
companies, overseas oil projects can create opportunities to develop new markets for Asian exports, and in some cases there is potential for strengthening political relationships which could be of use to the home governments in the international arena. To certain host governments, Asian companies represent additional investors with attractive characteristics: their willingness to undertake high-cost and high-risk projects and not to impose conditions.

In the longer term, divergence on governance and social responsibility between Asian and other foreign investors may be difficult for ANOCs to sustain. Although ANOCs are less susceptible than IOCs to reputational risks, they do have a stake in the host country’s long-term stability and development, and may face local criticism. The experience of Chinese mining companies in Zambia may be a warning for Chinese oil companies abroad and host governments to pay attention to local civil society and to be aware of the local impact of Chinese companies from other sectors.36

More research is needed on the real impact of the current investment, the local public perceptions of these new investors, whether the deals are meeting host country needs and how the ANOCs themselves are addressing and adapting to sustainability and development issues.

Endnotes

1 ‘Asia’ in this paper includes East and South Asia and Australasia, but not the Middle East or the Russian Federation.
2 Source: UN statistics and Comtrade database.
3 Except in Eastern Europe, where there are residual state interests.
6 Japan Oil, Gas and Metals National Corporation (JGMEC) replaced JNOC as the channel for such assistance in 2004.
7 According to the ‘State Energy Basic Plan 2030’ prepared by the South Korea Energy Economics Institute (KKEI).
8 In Europe, Statoil (73% state-owned) has a similar objective of growth as an international company, supplying the international market.
9 Such restrictions would generally contravene competition laws in Europe and North America and are therefore not applied by international oil companies based there.
10 There is a current project to establish a market in Dubai.
11 This does not reduce the price to consumers in the importing country: it maintains the refiners’ profits at the expense of the exporters and may reduce tax payments in the exporting country.
13 See Downs, ‘China’.
14 Since licensing in India was open to competition, IOCL has a small upstream activity, including three overseas projects.
15 ‘PIW’s top 50’, Petroleum Intelligence Weekly, 18 December 2006.
16 Note that foreign production figures for the Chinese NOCs are an estimate of equity shares of total project production, based on information available at the time of writing, with the exception of CNPC, which reported 0.40 mb/d for 2005. Since then, however CNPC’s foreign equity crude production has increased significantly. For example, two projects only came under CNPC’s control towards the end of the company’s financial year (December 2005). CNPC purchased Encana assets in Ecuador via Andes Petroleum Company JVC in September 2005 and the acquisition of PetroKazakhstan was not approved until October 2005. If volumes from these projects are included, CNPC’s foreign equity production will have increased by roughly 135,000 b/d.
17 The oil production figure is based on total overseas ‘oil produced’ given by company sources. The import figure is from the BP Statistical Review of World Energy 2006.
18 Note that according to the Japan Petroleum Development Association, the equity oil actually imported into Japan was 10.5% of total crude oil imports in 2005. In addition to crude oil, Japan also imports about 1 mb/d of oil products and liquefied petroleum gas (LPG).
19 There is a review of different projections of consumption in Downs, ‘China’, p. 9, table 1.
20 Sakhalin Oil & Gas Development Co. (Sodeco), which has a 30% share of Sakhalin 1, includes JGMEC, JAPEX, Itochu Corp., Marubeni Corp., Inpex Corp. and Teikoku Oil Co.
21 Project Kuwait, the controversial plan to open up Kuwait’s Northern oil fields to foreign investment remains under parliamentary discussion – India’s IOCL is in one of the consortiums pre-selected to compete for a license should the initiative get parliamentary approval.
22 Sinopec has a licence to explore for gas in Saudi Arabia.
23 In 2003, roughly half (0.075 m/bd) of UNOCAL’s liquid production and 56% (0.086 mboe/d) of its gas production were outside the US. However, political opposition led CNOOC to withdraw its bid and Unocal was acquired by ChevronTexaco.

27 At the end of February 2007, Saudi Aramco signed a contract with Sinopec and ExxonMobil to expand the refinery and petrochemical plant at Fujian. The upgraded refinery will primarily refine and process sour Arabian crude supplied by Saudi Aramco. Kuwait Petroleum Corporation signed an MOU with PetroChina in 2005 to build a refining-petrochemical complex in southern Guangdong province but Sinopec is now replacing PetroChina in this project. Saudi Aramco is also hoping to help build a new refinery at Qingdao. No contract has yet been signed. See also Clara Tan, ‘Negotiating the business minefield’, Energy Intelligence Group, 8 September 2006.

28 In Angola, Chinese government agencies provided a $2 billion credit for railway construction, to be followed by a further $2 billion credit for infrastructure projects. Under these loans, 70% of the work is to be carried out by Chinese companies. Source: Benoît Faucon, Centre François Pallu, Interview, Dow Jones 29.12.06, accessed at http://formation.mepasie.org/china, 16 January 2007.

29 However, the Financial Times reports (2 March 2007) that the National Development and Reform Commission has deleted Nigeria, Sudan and Iran from the list of countries eligible for various forms of government incentives for Chinese companies investing there.


32 Although it has been suggested that the Kazakh government was expecting to gain 50%. See Marat Yermukanov, ‘Kazakh government under fire over Chinese takeover deal’, Eurasia Daily Monitor, Vol. 2, Issue 200, 27 October 2005, The Jamestown Foundation.


35 These responses are already being debated: at the 2007 World Economic Forum in Davos, executives of Western mining companies discussed the issue of being ‘frozen out’ by the Chinese companies. See ‘Miners in talks to stop China excluding them from Africa’, The Times, 29 January 2007.

36 China’s ambassador was criticized for trying to influence the 2006 Zambian presidential election. Chinese President Hu Jintao was forced to cancel a visit to the Chinese-run Chambesi copper mines in February 2007 because of fears of protests from workers protesting at low wages, unsafe working conditions, and employment of Chinese instead of locals. Dickson Jere, Agence France Presse, 3 February 2007, http://news.yahoo.com/s/afp/20070203/wl_afp/chinaafricadiplomacy.

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