

POLICY BRIEF

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NEW RULES FOR A NEW 'GREAT GAME': NORTHEAST ASIAN ENERGY INSECURITY AND THE G-20

WHAT IS THE PROBLEM?

- *The world is gradually increasing its dependence on Middle East oil as global demand – driven by China in particular – increases while supply from other oil producing regions of the world declines.*
- *Energy insecurity, driven by high demand and uncertainty over supply, is fuelling a surging interest in equity in Middle East oil fields (and elsewhere around the world) among some major energy consumers.*
- *There is a risk that competition for oil and other energy resources in the Middle East will aggravate existing tensions or even create new conflicts between major energy consumers, particularly in Northeast Asia.*

WHAT SHOULD BE DONE?

- *To ensure that energy insecurity does not become a global strategic problem the international community needs to promote the efficient functioning of energy markets, encourage international cooperation regarding political and strategic questions surrounding energy extraction and transportation, and build consensual rules for the energy diplomacy 'game'.*
- *The G-20 should take a leading role in these efforts by building on its existing resource security agenda and network of workshops, perhaps complementing them with one and a half track and second track working groups, and bringing together experts from strategic, foreign policy and economic fields.*



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- produce distinctive research and fresh policy options for Australia’s international policy and to contribute to the wider international debate.
- promote discussion of Australia’s role in the world by providing an accessible and high quality forum for discussion of Australian international relations through debates, seminars, lectures, dialogues and conferences.

Lowy Institute Policy Briefs are designed to address a particular, current policy issue and to suggest solutions. They are deliberately prescriptive, specifically addressing two questions: What is the problem? What should be done?

The views expressed in this paper are entirely the authors’ own and not those of the Lowy Institute for International Policy.

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Introduction

Strongly growing demand for oil, the sharp run up in prices since mid-2003* and tight supply, have seen energy insecurity return to the international policy agenda. Fears have been raised that China’s emergence as a voracious consumer of oil and gas and a keen competitor in global energy markets might imperil the largely cordial relationship that has developed between Beijing and Washington over the last decade.¹ There is also a risk that the competition for energy resources could feed into the less than cordial relations between China and Japan.² The purpose of this Policy Brief is to examine the risks that the competition for oil resources might pose for international security, focusing in particular on the relationships between the United States, Middle East oil producers and major Northeast Asian energy consumers, and to propose a mechanism for defusing some of the risks that this competition could entail.

While energy insecurity is not a uniquely Northeast Asian problem, it does affect this region more than others given its heavy reliance on imported oil. Given also its distance from major oil sources and questions posed by the rise of China vis-a-vis the United States in particular, the geo-strategic implications of Northeast Asian energy security are greater than for other parts of the world. Our conclusion is that while a conflict or rivalries over energy resources between these key players is certainly not inevitable, active diplomacy is probably needed to ensure that it is avoidable. In this regard, we argue that the G-20 should

become a key component in global efforts to ensure that the quest by some nations for energy security does not become a source of regional and global insecurity.

Northeast Asia’s oil thirst

Northeast Asia has emerged as a key driver of growing global demand for oil. Last year, China and Japan were the world’s second and third largest consumers of oil, respectively, and South Korea was the seventh largest. Between them, the three consumed more than 14 million barrels per day (mbpd), accounting for almost 18% of total world demand (Table 1).

Of course, these aggregate numbers mask quite different consumption trends (Figure 1). The most dramatic development in the region’s profile as an oil consumer is the way in which rapid growth, industrialisation and urbanisation have transformed China into a major force in world oil markets. In marked contrast, Japan’s consumption of oil has tended to either stagnate or decline in recent years.

While all three economies are major oil consumers, only China has any significant capacity as an oil producer, and even then, while China managed to produce more oil than it consumed up until 1993, since that year the shortfall between production and consumption has soared. As a result, Northeast Asia is heavily dependent on oil imports. Indeed, the share of the region in the international oil trade is even higher than its share in oil consumption, with all three countries numbered among the world’s five largest oil importers (Table 1).

* Although at the time of writing prices had fallen by almost US\$15/barrel from their August 2006 peak.

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Already, the majority of these import needs are being met by producers in the Middle East. China is the most geographically diversified of the three in terms of its oil suppliers, but even so, four Middle East economies (Saudi Arabia, Iran, Oman and Yemen) last year accounted for more than 40% of total Chinese oil imports (Figure 2).

Japan and Korea are much more closely tied to Middle East exporters. Japan's five largest oil suppliers are all from the region, and together accounted for almost 90% of Japanese imports in 2005 (Figure 3). Similarly, seven out of the top ten sources of Korea's imports were also located in the Middle East, accounting for more than 80% of total imports.

Looking ahead, both demand and supply factors mean that this relationship between Northeast Asia's oil consumers and the Middle East's oil producers is set to deepen.

On the *demand* side, assuming that Chinese economic development continues along its current trajectory, Northeast Asia is set to consume increasing quantities of oil. China's potential as an oil consumer is highlighted in Figure 4, which plots the relationship between oil consumption per capita and level of economic development (measured by GDP per capita) for China, Korea and Japan: oil consumption per capita in China is still far below that of the other two regional economies. Should China follow a similar economic development path to that of Korea, then growing Chinese wealth will go hand in hand with much greater oil consumption.

This kind of broad historical relationship has been seen most forecasts of future oil demand

envison a continued expansion of China's role in global oil markets. For example, the US Energy Information Administration (EIA)'s *International Energy Outlook 2006* forecasts that world oil consumption between 2003 and 2030 will grow at an annual average rate of 1.4%. Yet over the same period, China's oil consumption is projected to grow at an average annual rate of 3.8%, pushing Chinese oil consumption up to an estimated 15 mbpd by 2030 (Table 2). Similarly, the International Energy Agency in its *World Energy Outlook 2005* forecast oil demand in China to increase almost 2½ times between 2003 and 2030, to 13.1 mbpd.

What about Japan and Korea? The EIA forecasts South Korean oil consumption as growing closer to (but still above) the world rate at 1.7% pa. In Japan average annual growth is estimated to run at minus 0.1% pa, leaving consumption virtually unchanged over the forecast period.

Meanwhile, on the *supply* side of the market, an increasing share of the response to Northeast Asia's demand for oil is likely to be met by Middle East producers. This reflects two complementary factors. First, the vast majority of the world's proven oil reserves are located in the Middle East. According to BP, for example, the five largest Middle East producers account for about 60% of the global total of proven oil reserves (Figure 5). Similarly, the EIA cites estimates for world proven oil reserves as of 1 January 2006 that show the Middle East accounting for 57% of the world total.³

Second, Middle East producers tend to enjoy lower production costs than those in other

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regions, along with relatively low investment costs for expanding capacity. For example, total production costs in the Middle East and North Africa typically average between US\$3 and US\$5 per barrel of oil produced, compared to around US\$12 in the Gulf of Mexico. Three Middle East producers - Saudi Arabia, Kuwait and Iraq - have the lowest production costs in the world. Similarly, Saudi Arabia also has some of the lowest development costs in the world.⁴

Together, these two factors mean that most forecasts assume that the majority of future global demand for oil will be met by Middle East producers.⁵ According to the IEA’s reference scenario, for example, the Middle East’s share of world oil production will rise from about 30% in 2004 to almost 40% by 2030 (Figure 6).

As a result, Northeast Asia is likely to become even more dependent on oil imports from the Middle East than it is at present. According to the EIA, for example, while in 2003 China imported 0.9 mbpd of oil from Persian Gulf OPEC members, by 2030 imports from the same source will have risen to 5.8 mbpd. Korea and Japan are also forecast to become more dependent on Middle East oil producers.

A new ‘Great Game’?

Concern about future supplies of energy, and oil in particular, is contributing to what in some respects is an economically irrational impulse. That is, in addition to relying solely on the market to provide oil, countries like China, Japan and, to a lesser extent, South Korea are trying to secure energy supplies by

seeking equity in foreign oil and gas fields or otherwise strengthening their bilateral relations with oil and gas supplying countries (and not just in the Middle East). So far, the oil provided by such equity deals and bilateral supply arrangements makes up a small proportion of their total imports. Nevertheless, at a time when supply is tight, such moves may have a significant impact on the behaviour of other major oil consuming nations and oil multinationals.

According to a report by Japan’s Ministry of Economy, Trade and Industry, China has invested some 12.5 billion dollars in upstream projects in the past five years.⁶ In the Middle East specifically, Chinese state-owned oil companies have invested in oil and oil-related ventures in Algeria, Sudan, Egypt and Iran – with a significant increase in these types of investments since the 2002 launch of the ‘Going Out’ campaign by the Chinese Government.⁷ Japan’s investment in oil fields around the world has also been on the rise. Currently Japanese companies have rights and interests in about 15 per cent of the crude oil imported by Japan, but under Japan’s New National Energy Strategy, published this year, the goal is to increase this to 40 per cent by 2030.⁸ Even South Korea, traditionally reliant on the market for its energy needs, is now looking to gain equity, though in gas rather than oil in the Middle East. According to one South Korean energy economist, the perception now - no doubt stimulated by the aggressive overseas investment efforts of China and Japan – is that securing equity has become an important component of a nation’s energy security.⁹

In this search for equity and strengthened supplier relationships, these countries are

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competing as much with each other and new oil players like India as they are with the energy companies of traditional powers, the United States, Russia, the United Kingdom and France. Of course, such competition need not inevitably feed into tensions or conflicts between these states. China's energy ties to Sudan and Iran are undoubtedly irritants in its relations with the United States, but both sides seem so far to have quarantined these problems from their broader bilateral relationship. Indeed, energy security could be a stimulus for greater rather than less international cooperation. For example, China's reliance on long sea-lines of communications for its oil imports and its lack of a blue water naval capability are incentives for greater cooperation on maritime security issues with both the US and Japan. Likewise, Japan's New National Energy Strategy emphasises the need for cooperative international efforts to tackle energy security.¹⁰

Nevertheless, the international community cannot afford to be sanguine about the possibility of energy insecurity creating or feeding broader political or strategic conflicts, both between China and the US and within Northeast Asia. One key risk is that the intensity of energy competition sees states go beyond paying a commercial premium to secure energy supplies. Historically, major powers like the United States, the United Kingdom and France have never relied solely on commercial means to secure their nation's energy interests in the Middle East, using everything from the establishment of close political relationship with ruling elites to arms sales. Northeast Asian players are potentially no different in this regard. In the 1970s, for example, Japan's energy diplomacy in the Middle East saw it adopt a strongly pro-Arab position on the

Israeli-Palestinian conflict.¹¹ Today, Beijing is seen to have provided Sudan and Iran with political support in the Security Council because of its significant energy investments in those countries. It matters little that China's resistance to the imposition of sanctions on either of these two countries - in Sudan's case over Darfur and Iran's over the nuclear issue - is quite cogently explained by Beijing's consistent aversion to Security Council interference in the internal affairs of member states (lest this set a precedent with respect to China).¹² Indeed, regardless of the intent behind China's ties to these countries, objectively Beijing's economic, political and, in the case of Sudan, military support does insulate these countries from US or European pressure through arms embargoes or sanctions.

Exacerbating this potential conflict of interests is the tendency of Middle East states to see Asia and specifically China as an alternative to, or a hedge against, the United States - particularly at a time when American stocks in the region are at, perhaps, their lowest ebb. One of the prime attractions of Asian - and in particular, Chinese - political and economic partnerships for Middle East countries is that they come without the political or human rights baggage carried by US (or European) partners. This certainly applies to 'rogue' states like Iran and Sudan, but today even US allies like Saudi Arabia and Egypt seem keener to encourage a more multi-polar Middle East. The expansion of the Sino-Saudi relationship over the last few years has been particularly dramatic, if perhaps not that deep. There is, of course, little prospect of China becoming a strategic alternative to the US for countries like Saudi Arabia in the short term. There is a risk, nevertheless, that these moves will be seen in

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Washington as a challenge to American power and interests in a region where the United States has long been the pre-eminent, if not hegemonic, power.

It is not just the international community's central strategic relationship that could potentially be afflicted by energy-driven rivalry. Given energy-related territorial disputes in the East China Sea, energy insecurity is already a factor in Sino-Japanese relations. Today that rivalry is also being played out in the Middle East and North Africa; Japan, for example, won oil rights in Libya in an aggressive competition with Chinese bidders in 2005.¹³ Moreover, Asian states are just as liable to being played off against each other by Middle East producers. For example, Iran recently warned a Japanese oil company that its foot-dragging over the development of Azadegan oil field (partly over the Japanese company's concern about looming sanctions against Iran) might see it replaced by a Chinese or Russian competitor.¹⁴

Building international energy security

It is premature to talk about geo-strategic competition between China and the US in the Middle East, and even more so between Northeast Asian powers like China and Japan. Neither China nor Japan have the capacity to project strategic power into the Middle East; to the extent that they do compete in the region it is limited to the projection of political and economic influence in support of their energy diplomacy. What this means is that the international community does have time to ensure that any current 'soft power' competition between major energy consumers

does not ultimately become or contribute to a 'hard power' rivalry.

In our view there are three key elements to ensuring that energy insecurity does not fuel political or geo-strategic competition:

- *Promoting the efficient functioning of global energy markets:* The trends in the demand for and supply of oil described above mean that the world economy in general and Northeast Asia in particular are set to be increasingly dependent on cross-border trade in energy. This growing dependence means that effectively functioning global markets for energy will be vital in assuaging energy insecurity concerns. As an internationally traded commodity, oil flows to where the (dollar) demand is. The free functioning of global markets and the operation of the price mechanism is the best way to ensure both the reconciliation of demand and supply, and to draw forth the required investments in capacity and innovation. That said, the energy market is clearly subject to various forms of imperfections, interventions and market failures that currently impede its effective functioning, and which therefore provide scope for potential intervention.¹⁵
- *Promoting international political and strategic cooperation on energy:* Even if energy security can be isolated as primarily an issue related to the efficiency of international energy markets, some aspects will always have geo-strategic implications. Key among these is the security of energy supply routes, notably sea lines of communication. This is particularly relevant to Northeast Asia given the length of supply routes from the Middle East and the presence of vulnerable choke points such as the Malacca Straits. But if, to some degree, this is a strategic risk factor, it is also potentially a basis for strategic

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cooperation. On these and other issues related to oil supply the US and Northeast Asian consumers all have common interests. In the case of sea lines of communication, for example, there is a strong basis for the promotion of maritime security cooperation.

- ***Building consensual rules for the 'energy game' in the Middle East:*** An emphasis on market mechanisms is probably not going to see energy or energy-related diplomacy disappear from the Middle East. There is a need – and an opportunity - to build consensual rules for the interaction of both new and old external powers in what remains a volatile region to ensure that energy-driven diplomacy does not exacerbate existing conflicts either in the region or between these external players. By rules we refer not to international law but to a broad set of principles, understandings and even red lines that underpin the status quo in a number of international flashpoints around the globe. For example, as a result of many years of diplomacy and at times confrontation over Taiwan, China and the US more or less understand each others' positions and certainly what constitutes the other sides 'red lines' to the point where the situation there is more or less stable – or at least actions that are likely to prove destabilising are understood.

Energy Insecurity and the G-20

The prominence now accorded to energy insecurity has seen a number of existing international forums discussing the issue, including how to build more cooperative or multinational approaches. For example, at the global level, the G8 under Russian leadership has already made a start at tackling the issue of energy security, while the United States and

China now conduct bilateral discussion on energy. Yet few forums focused on or including Northeast Asia bring together both key consumers and key suppliers. Including key suppliers from the Middle East is central to containing any flow-on political or strategic implications, not least given the importance of understanding capacity constraints and other supply-side issues in the development of cooperative approaches to energy security.

One organisation that could play a central role is the informal forum of national finance ministers and central bank governors known as the G-20. The G-20 has three key strengths that make it a particularly appropriate mechanism for consideration of the energy security issue, particularly in relation to Northeast Asia:

- It *does* have an appropriately broad membership.¹⁶ It includes all three major Northeast Asian economies along with the United States (still by far the world's largest oil consumer) and in Saudi Arabia it also boasts the country which is already the largest single bilateral oil supplier for Northeast Asia, and which has the largest stock of proven reserves in the world.¹⁷
- It has *already* flagged energy security as a key subject for discussion at G-20 meetings. The work program for 2006, under the general heading of building and sustaining prosperity, highlights resource security, for both energy and mineral markets, as one of five key issues to be considered by the group.¹⁸
- Precisely *because* it is part of the international economic architecture it can promote the idea that national energy policies should be dictated primarily by economic factors – notably the efficient

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functioning of energy markets - rather than a zero-sum strategic logic.

As a forum the G-20 is already well equipped to promote ideas designed to improve the efficient functioning of international energy markets as a way of countering energy insecurity. The G-20 could do more, however, to contribute to the broader energy security agenda, in particular, its political and geo-strategic aspects. One way would be for the G-20 to build on its existing network of workshops, perhaps complemented by a one and a half track and second track working groups, to bring together experts from strategic, foreign policy and economic fields. Examples would include:

- An internal working group or forum aimed at promoting greater transparency between oil consumers and producing countries on issues such as energy security policy and production capacity.
- Workshops into cooperative approaches to energy security, focusing on some of the political or strategic dimensions that can support market-based solutions such as maritime security cooperation in Asia or the construction of strategic oil reserves.
- A working group to examine the development of consensual rules for energy diplomacy, linking the economic and strategic dimensions of national energy policies. Given the political sensitivity of any effort to build such rules an initial approach might be to commence with a one and a half track or second track working group.

In our view, energy insecurity is more easily tackled if the international community starts from an economic perspective – something

which the G-20 is already well placed to do. A focus on markets cannot, however, be the end of the discussion. If the international community is to limit the geo-political and strategic ramifications of national energy insecurity these broader issues must be brought into the discussion. With a modest expansion of its agenda and the introduction of relevant expertise, the G-20 could become a central player in a more holistic effort to tackle a key issue confronting the international community.

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NOTES

¹ See Anthony Bubalo and Mark Thirlwell *Energy Insecurity: China, India and Middle East Oil* Lowy Institute Issues Brief December 2004. Also Wu Lei and Shen Qinju Will China go to war over oil? *Far East Economic Review* 169 (3) April 2006 pp 38-40 and David Zweig and Bi Jianhai China's global hunt for energy *Foreign Affairs* 84 (5) September/October 2005 pp 25-38.

² See for example Kent E Calder China and Japan's simmering rivalry *Foreign Affairs* 85 (2) March/April 2006 pp 129-139.

³ Proven oil reserves are estimates based on future extraction from known reservoirs under existing economic and geological conditions. Changes in price and/or technology will lead to changes in proven reserves. These estimates exclude non-conventional oil reserves.

⁴ *World Energy Outlook 2005* International Energy Agency (2005) p 133.

⁵ For the broader grouping of the Middle East and North Africa (MENA), the forecast increase is from 35% to 44% over the same period.

⁶ New National Energy Strategy (Digest), Ministry of Economy, Trade and Industry, Government of Japan, May 2006
<http://www.meti.go.jp/english/report/index.html> p. 9.

⁷ "Going Out": China's pursuit of natural resources and implications for the PRC's grand strategy, NBR Analysis, Volume 17 Number 3, September 2006 p.22 and National Security Review of International Energy Requirements, US Department of Energy, February, 2006 pp 25-26. Of course, the Middle East has not been the only focus of this overseas investment effort – it has also focused heavily on Africa, Central Asia and the Americas. But what makes investment in the Middle East significant is the relative, growing importance of the region as an oil supplier over time as oil production in other regions starts to decline.

⁸ New National Energy Strategy (Digest) p. 14.

⁹ Interview with Dr Hyun Jae Doh and Dr Young-Koo Lee, Korea Energy Economics Institute

¹⁰ New National Energy Strategy (Digest) p. 11.

¹¹ Asai Nobuo *Walking a Tightrope in the Middle Japan Quarterly*, 38, October-December, 1991)

¹² John Keefer Douglas, Matthew B. Nelson, Kevin Schwartz *Fueling the Dragon's Flame: How China's Energy Demands Affect its Relationships in the Middle East* Report to U.S.-China Economic and Security Review Commission, September 14, 2006 p. 3.

¹³ Michael Penn *A Japanese oil victory in Libya* Asia Times, 3 November 2005

¹⁴ See for example *Iran-Japan talks continue about Azadegan oil contract* Fars News Agency 2 October 2006

<http://english.farsnews.com/newstext.php?nn=8507100227>

¹⁵ For example, governments are *already* heavily involved in energy (especially oil) markets throughout the world, and there are significant issues relating to transparency and data availability relating to national oil reserves and the operations of some state owned oil companies. More generally, the energy sector is characterised by imperfect competition (market concentration) and limited information, along with significant environmental externalities involved in both the extraction and consumption of oil.

¹⁶ G-20 membership comprises that of the G8 along with China, Korea, Mexico, India, Australia, Brazil, Turkey, Indonesia, Saudi Arabia, South Africa, Argentina, and the EU. For more on the G-20 see Mark Thirlwell and Malcolm Cook *Geeing up the G-20* Lowy Institute Policy Brief April 2006.

¹⁷ The G-20 also includes Russia, a major oil exporter from outside the Middle East.

¹⁸ The other four are reform of the Bretton Woods institutions, demographic change, domestic economic policies and principles, and aid

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effectiveness. The 2006 work program is available at:
http://www.g20.org/Public/Publications/Pdf/2006_work_programme_australia.pdf

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Table 1

World's top 10 oil consumers and importers			
<u>Consumers</u>	<u>mbpd</u>	<u>Net importers</u>	<u>mbpd</u>
US	20.7	US	12.1
China	7.0	Japan	5.3
Japan	5.4	China	2.9
Russia	2.8	Germany	2.4
Germany	2.6	South Korea	2.2
India	2.5	France	1.9
South Korea	2.3	Italy	1.7
Canada	2.2	Spain	1.6
Mexico	2.0	India	1.5
France	2.0	Taiwan	1.0

Sources: Data for oil consumers are for 2005 and are taken from the BP Statistical Review of World Energy (2006). The data for the world's largest net importers are for 2004 and are taken from the US Energy Information Administration (EIA) website, <http://www.eia.doe.gov>.

Table 2

Forecasts for oil consumption (mbpd)					
	<u>2010</u>	<u>2015</u>	<u>2020</u>	<u>2025</u>	<u>2030</u>
China	8.7	10.0	11.7	13.2	15.0
Japan	5.4	5.5	5.4	5.5	5.4
South Korea	2.6	2.9	3.0	3.2	3.5

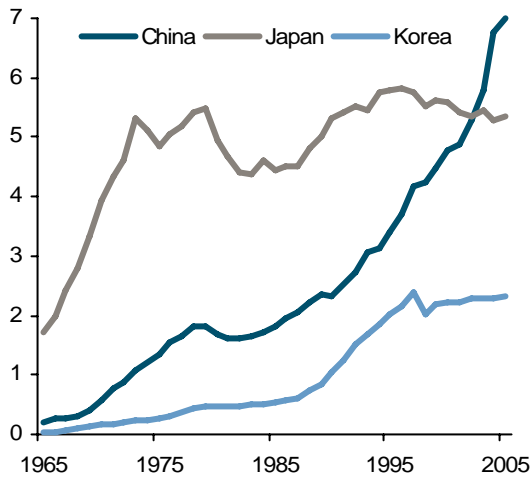
Source: Table A4 in EIA Annual Energy Outlook (2006)

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Figure 1

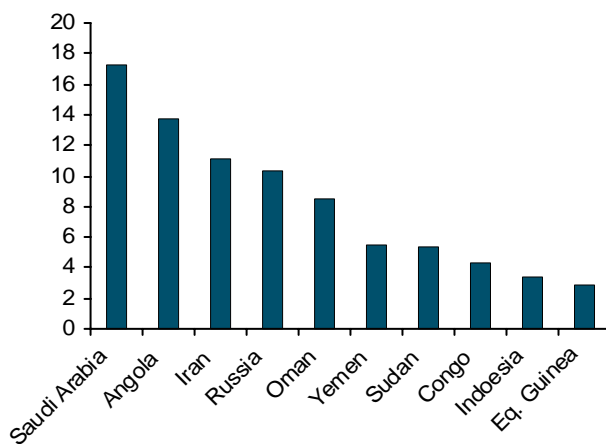
Oil consumption in East Asia, 1965-2005
millions of barrels per day



Source: BP Statistical Review of World Energy (2006)

Figure 2

China: top 10 sources of crude oil imports 2005
% of total



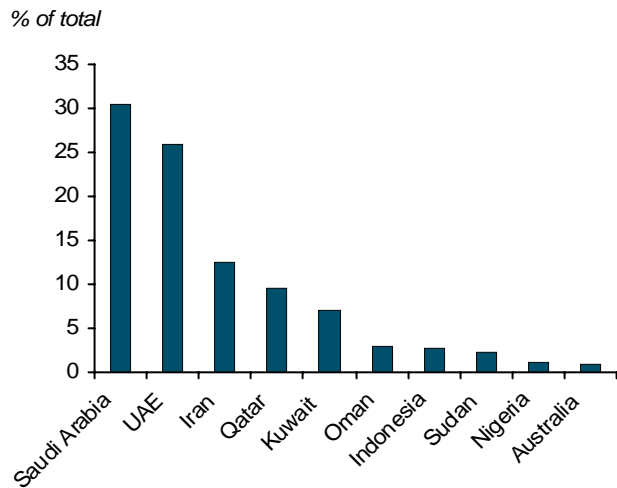
Source: UN Comtrade database

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Figure 3

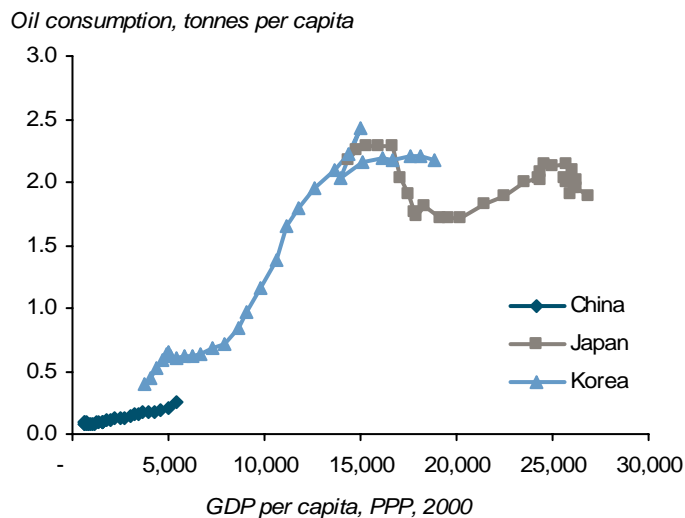
Japan: top 10 sources of crude oil imports 2005



Source: UN Comtrade database

Figure 4

Oil demand and economic development, 1975-2004



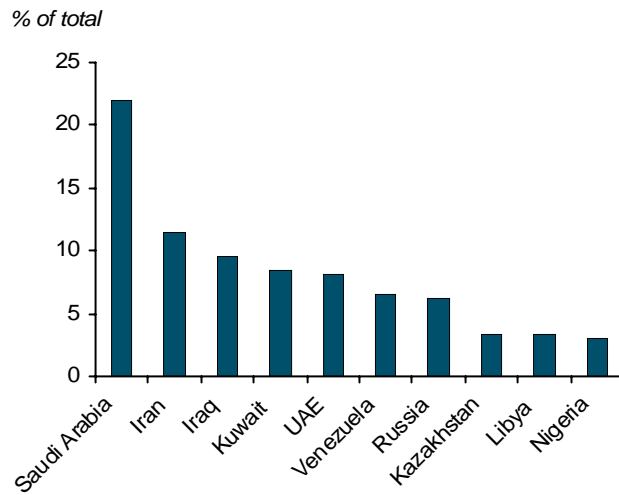
Sources: BP Statistical Review of World Energy (2006), World Bank World Development Indicators, author calculations.

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Figure 5

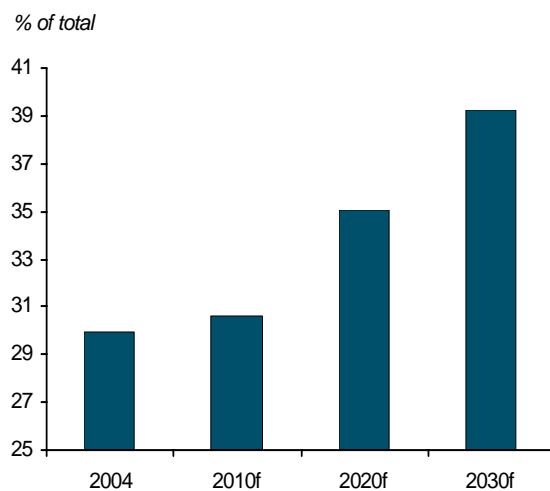
Share of proven oil reserves, 2005



Source: BP Statistical Review of World Energy (2006)

Figure 6

Share of Middle East in world oil production



Source: International Energy Agency World Outlook 2005. Reference scenario.

ABOUT THE AUTHORS

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Mark is a graduate of Cambridge University and has an MPhil degree in economics from Oxford. He also has a postgraduate qualification in applied finance from Macquarie University.

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