Asian NOCs in the Western Hemisphere
Investments and Geopolitics

2007 Asian Energy Security Conference

The Rise of Asia’s National Oil Companies:
Competitive Issues and Geopolitical Implications

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University of Alberta
OVERVIEW

I. China, India & the Western Hemisphere

II. Chinese & Indian NOCs in the Hemisphere

III. Implications for the United States
I. China, India & the Western Hemisphere

1. The two countries’ energy situation

2. The global context

3. China’s fast growing ties with the region
China’s trade growth with major regions of the world 2001-2005

- N. America: 163%
- EU: 184%
- ASEAN: 170%
- Middle East: 367%
- Latin America: 238%
- Africa: 268%
The Bilateral Trade Statistics between China and Venezuela 2000-2005 (100 million US Dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total amount</th>
<th>China's Export</th>
<th>Venezuela's Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>3.51</td>
<td>2.56</td>
<td>0.95</td>
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<tr>
<td>2001</td>
<td>5.89</td>
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<td>1.46</td>
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<td>2002</td>
<td>4.78</td>
<td>3.33</td>
<td>1.45</td>
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<tr>
<td>2003</td>
<td>7.41</td>
<td>1.99</td>
<td>5.42</td>
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<tr>
<td>2004</td>
<td>13.34</td>
<td>5.96</td>
<td>7.39</td>
</tr>
<tr>
<td>2005</td>
<td>21.418</td>
<td>9.078</td>
<td>12.34</td>
</tr>
</tbody>
</table>

(Sources: China Customs)
China’s engagement:

- In 2004, 49 percent of China’s total foreign investment went to Latin America

- China’s trade with Latin America increased 600 percent from 1993 to 2003 and reached about $50 billion by early 2005

- Business deals between China and Latin American countries have numbered up to 400 in the past few years

- Top Chinese leaders frequently visit the Hemisphere: Jiang Zemin, Wen Jiabao, Hu Jintao, Zeng Qinghong, Li Changchun

- Strategic partnerships: Brazil, Venezuela, Mexico, Argentina (Cuba, Canada)
Increase in India’s Energy Needs – an Inevitability

- 6\textsuperscript{th} largest in terms of total commercial energy use
- Low per capita commercial energy consumption
- Only 55\% of households have access to electricity
- Economic growth, structural changes, development goals \& electricity to all by 2012 \rightarrow \text{rapid increase in energy needs}
India: Energy Security: High Import Dependency - BAU

Fuel Import in 2031

- Coal import: 1438 MT
  - ~4 times of consumption in 2001
  - Import dependency: 78%
- Oil import: 680 MT
  - Import dependency: 93%
- Gas import: 93 BCM
  - Import dependency: 67%
Oil Demand Compared

FACTS Global Energy
Oil Consumption: China, India and the World

China + India

World

(kb/d)

1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Oil Demand Growth Compared

FACTS Global Energy
Volatility in China’s oil demand growth

GDP growth (%)

oil demand growth (%)
II. Chinese & Indian NOCs in the Hemisphere

1. Chinese NOCs in Canada
2. China & the US: the lessons of the Unocal
3. China in Latin America
4. India’s engagement with the region & China
World Crude Oil Reserves

Ranked as the second largest crude oil reserve in the world, next to Saudi Arabia.

Sources: Oil and Gas Journal  Dec 2002
Alberta’s Oil Sands

-- With total output of bitumen projected at 3.6 million barrels per day by 2020, Alberta’s objective is to become a major refining and petrochemical hub that would produce and export a significant portion of its oil sands output as high value-added finished petroleum products around the world, rather than exporting only lower value raw materials. Attraction of investment in downstream energy sectors is a priority for the Alberta government.
Alberta’s Oil Sands

-- International interest is increasing in Alberta’s oil sands, particularly since the Oil and Gas Journal officially recognized oil sands reserves, ranking Canada’s proven crude oil reserves second only to Saudi Arabia (Dec. 2002).

-- From 1996 to 2004, $35 billion has been spent in developing Alberta’s oil sands. Investment is projected to be approximately over $100 billion for the period of 2005 - 2020.
Timeline of Canada-China relations

1970 - Establishment of diplomatic relations
1994 - Team Canada visiting China (nuclear cooperation)
1996 - NRCan Minister visiting China
2003 - Two CANDU 6 Nuclear reactors delivered to China
2004 - Alberta Premier calling for Chinese investment
2004 - NRCan - NDRC Working Group first session
2004 - Canada-China Energy Cooperation Conference (U of A)
2005 - 1st China-Canada Energy Cooperation Conference (Beijing)
2005 – Canada-China Strategic Partnership
2006 - 2nd China-Canada Energy Cooperation Conference (Beijing)
2006 – China’s NDRC Delegation to July PNWER Summit
2006 – Energy Council leadership delegation to China
Chinese firms coming to Canada

Fall, 2004 -- China Minmetals tried to buy Noranda

2004 -- China became Canada’s second largest trading partner

April, 2005 -- CNOOC took 17% stake in MEG with $150 mil.

April, 2005 -- PetroChina & Enbridge Gateway pipeline MOU for $2.5 bil.

June, 2005 -- Sinopec took 40% holding in Synenco with $149.7 mil.

Summer 2005 -- CNOOC failed in its bid to buy Unocal

Sept. 2005 -- President Hu visiting Canada, “Strategic Partnership” formed


Dec. 2005 -- CNPC & ONGC got 37% of Petro-Canada’s Syrian assets for $676 mil.

Canada-China Energy Relations

1. Canada as an opportunity for China -- still the case

2. Much talk, little action -- less talk, some action

3. China is yet to strike a major deal -- not yet

4. Strategic concerns -- stronger today

5. Canada’s market-oriented response -- sort of

6. Canadian export to Asia contributes to security
Liquids Pipelines
Expansion and New Market Access

- Spearhead: Q1 2006
- Exxon Mobil: Q1 2006
- Southern Access Expansion: 2009
- Southern Lights: 2009
- Alberta Clipper: 2010
- Gateway: 2011

Refineries:
- Canadian Supplied
- Not Canadian Supplied

Companies:
- Enbridge Inc.
- Enbridge Energy Partners
Need to Accommodate 2.1 Million BPD incremental basin production by 2015
Oil flows through the Malacca Straits will roughly triple by 2030. Will China continue to focus on overseas assets?
Canadian oil export to Asia:

The amount of crude oil & products which pass the Straits of Malacca will increase from 9.2 mb/d in 2003 to 12.8 mb/d in 2115.

Canadian export to Asia will reduce significant amount of oil passing through S of M, which will mitigate congestion from 4,687 VLCC vessels/yr of passage to 3,987 vessels/yr.

(AED/IEEJ preliminary finding)
# Oil Imports of Four Asian Countries (by Region)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2006 1st half</th>
<th>Middle East dependence</th>
<th>Africa dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td>4.19</td>
<td>4.16</td>
<td>88%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td>2.46</td>
<td>2.57</td>
<td>49%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td>2.23</td>
<td>2.26</td>
<td>78%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td>2.03</td>
<td>1.91</td>
<td>61%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Unit: Million b/d

Source: PIW, August 15, 2005
Note: China has imported 2.93 million b/d of crude oil and 0.7 million b/d of petroleum products during the first half of 2006. China's major sources for crude oil are Angola, Saudi Arabia, and Russia.
Chinese firms coming to the US

Participation in the US market
(% according to total imports)

Source: U. S. Census Bureau
CNOOC’s bid on Unocal: lessons

1. Short term: Backlash against perceived US hypocrisy

2. Medium term: Investment flow into troubled states

3. Long term: Impediment to China’s NOC reform along the market logic
Beijing has put more emphasis on Latin American countries

More emphasis on Latin American countries

49% of China’s overseas investment went to L.A. in 2004

China’s trade with L.A. increased 600% from 1993-2003

400 business deals between China & L.A. in the past few years

Promised to double trade volume from $50 bil. to $100 bil. by 2010

Brazil in China’s largest trade partner in L.A.

China has replaced Japan as Mexico’s 2nd largest trading partner
China & India – L.A. energy relations have developed rapidly in recent years

Venezuela now supplies China with about 200,000 bpd

Brazil & China have signed over $2 bil. in energy related projects

CNPC spent $1.2 bil. to purchase EnCana’s assets in Ecuador

Argentina will get $25 bil. from China for railways & energy

India & Venezuela has extensive energy relations as well

Venezuela had shipped 2 mil. barrels of oil to India by early 2006
Chinese Oil Imports from Africa

(years)

(0-1000 kb/d)
Chinese Oil Imports from Saudi Arabia

(K/b/d)

- 1998: 30 (K/b/d)
- 1999: 40 (K/b/d)
- 2000: 50 (K/b/d)
- 2001: 100 (K/b/d)
- 2002: 150 (K/b/d)
- 2003: 200 (K/b/d)
- 2004: 250 (K/b/d)
- 2005: 300 (K/b/d)
- 3 Qtr 2006: 350 (K/b/d)
Chinese Oil Imports from Venezuela

(kb/d)


3 Qtr 2006
Figure 3.1: Chinese Crude Oil Imports by Source, 1992

- Indonesia: 42%
- Oman: 27%
- Australia: 5%
- Papua New Guinea: 5%
- Malaysia: 4%
- Yemen: 4%
- Other: 13%
Figure 3.2: Chinese Crude Oil Imports by Source, 2002

- Saudi Arabia: 16%
- Iran: 15%
- Oman: 12%
- Sudan: 9%
- Angola: 8%
- Vietnam: 5%
- Russia: 4%
- Indonesia: 3%
- Yemen: 3%
- Other: 23%
### China's Crude Imports by Source, 2005

<table>
<thead>
<tr>
<th>Source</th>
<th>Volume (kb/d)</th>
<th>Share (%)</th>
<th>Source</th>
<th>Volume (kb/d)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>443.6</td>
<td>17.5</td>
<td>Angola</td>
<td>349.3</td>
<td>13.7</td>
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<tr>
<td>Iran</td>
<td>285.5</td>
<td>11.2</td>
<td>Sudan</td>
<td>132.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Oman</td>
<td>216.7</td>
<td>8.5</td>
<td>Congo</td>
<td>110.7</td>
<td>4.4</td>
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<td>Yemen</td>
<td>139.6</td>
<td>5.5</td>
<td>Equat. Guinea</td>
<td>76.8</td>
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<td>UAE</td>
<td>51.4</td>
<td>2.0</td>
<td>Libya</td>
<td>45.2</td>
<td>1.8</td>
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<td>Kuwait</td>
<td>32.9</td>
<td>1.3</td>
<td>Nigeria</td>
<td>26.2</td>
<td>1.0</td>
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<td>Iraq</td>
<td>23.4</td>
<td>0.9</td>
<td>Algeria</td>
<td>16.3</td>
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<td>Qatar</td>
<td>6.9</td>
<td>0.3</td>
<td>Chad</td>
<td>11.0</td>
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<td><strong>Middle East Total</strong></td>
<td><strong>1,199.8</strong></td>
<td><strong>47.2</strong></td>
<td>Egypt</td>
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<td>Indonesia</td>
<td>81.7</td>
<td>3.2</td>
<td><strong>Africa Total</strong></td>
<td>769.4</td>
<td>30.3</td>
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<td>Russia</td>
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<td>0.9</td>
<td>Kazakhstan</td>
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<td>Brunei</td>
<td>10.0</td>
<td>0.4</td>
<td>Venezuela</td>
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<td>Malaysia</td>
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<td>Brazil</td>
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<td>Australia</td>
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<td>Argentina</td>
<td>18.2</td>
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<td>The Philippines</td>
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<td>0.1</td>
<td>Norway</td>
<td>10.4</td>
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<td>Mongolia</td>
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<td>0.0</td>
<td>Ecuador</td>
<td>1.9</td>
<td>0.1</td>
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<td><strong>Asia-Pacific Total</strong></td>
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<td><strong>7.6</strong></td>
<td>Guatemala</td>
<td>1.5</td>
<td>0.1</td>
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<td><strong>Europe/Other Total</strong></td>
<td><strong>378.7</strong></td>
<td><strong>14.9</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,541.7</strong></td>
<td><strong>100.0</strong></td>
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## China's Crude Imports by Source, January-September 2006

<table>
<thead>
<tr>
<th>Source</th>
<th>Volume (kb/d)</th>
<th>Share (%)</th>
<th>Source</th>
<th>Volume (kb/d)</th>
<th>Share (%)</th>
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<tbody>
<tr>
<td>Saudi Arabia</td>
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<td>16.5</td>
<td>Mauritania</td>
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<td>345.6</td>
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<td>Gabon</td>
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<td>0.7</td>
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<td>Oman</td>
<td>244.6</td>
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<td>Chad</td>
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<td>UAE</td>
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<td>Algeria</td>
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<tr>
<td>Kuwait</td>
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<td>1.9</td>
<td>Cote d'Ivoire</td>
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<td>0.1</td>
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<td>Iraq</td>
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<td>0.7</td>
<td>Egypt</td>
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<td>0.1</td>
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<td>Qatar</td>
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<td>South Africa</td>
<td>1.2</td>
<td>0.0</td>
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<tr>
<td><strong>Middle East Total</strong></td>
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<td><strong>45.2</strong></td>
<td><strong>Africa Total</strong></td>
<td><strong>906.2</strong></td>
<td><strong>29.2</strong></td>
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<td>0.1</td>
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<td><strong>Asia-Pacific Total</strong></td>
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<td>0.1</td>
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<td>3.9</td>
<td>Ecuador</td>
<td>1.3</td>
<td>0.0</td>
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<td>Equat. Guinea</td>
<td>100.6</td>
<td>3.4</td>
<td>Canada</td>
<td>1.2</td>
<td>0.0</td>
</tr>
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<td>Libya</td>
<td>79.9</td>
<td>2.7</td>
<td><strong>Europe/Other Total</strong></td>
<td><strong>577.3</strong></td>
<td><strong>19.8</strong></td>
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<td>Sudan</td>
<td>52.9</td>
<td>1.8</td>
<td>TOTAL</td>
<td>2,921.7</td>
<td>98.2</td>
</tr>
</tbody>
</table>
III. Implications for the US

Three perspectives

Strategic thinking

Opportunities

North America-China Energy Conference
Strategic questions

1. Ignore the dragon?

2. Contain the dragon?

3. Slay the dragon?

4. Lure the dragon?

5. Dance with the dragon?
Opportunities

1. China & India as the largest potential market

2. Oil, gas, nuclear, renewable, alternative

3. New technologies for leap-frogging

4. Carbon credit, CDM

5. Environment

6. Easing the labor shortage of producers?
North America-China Energy Cooperation Conference

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Edmonton, Alberta

www.china.ualberta.ca
Thank you

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