

China's Energy Insecurity and Implications

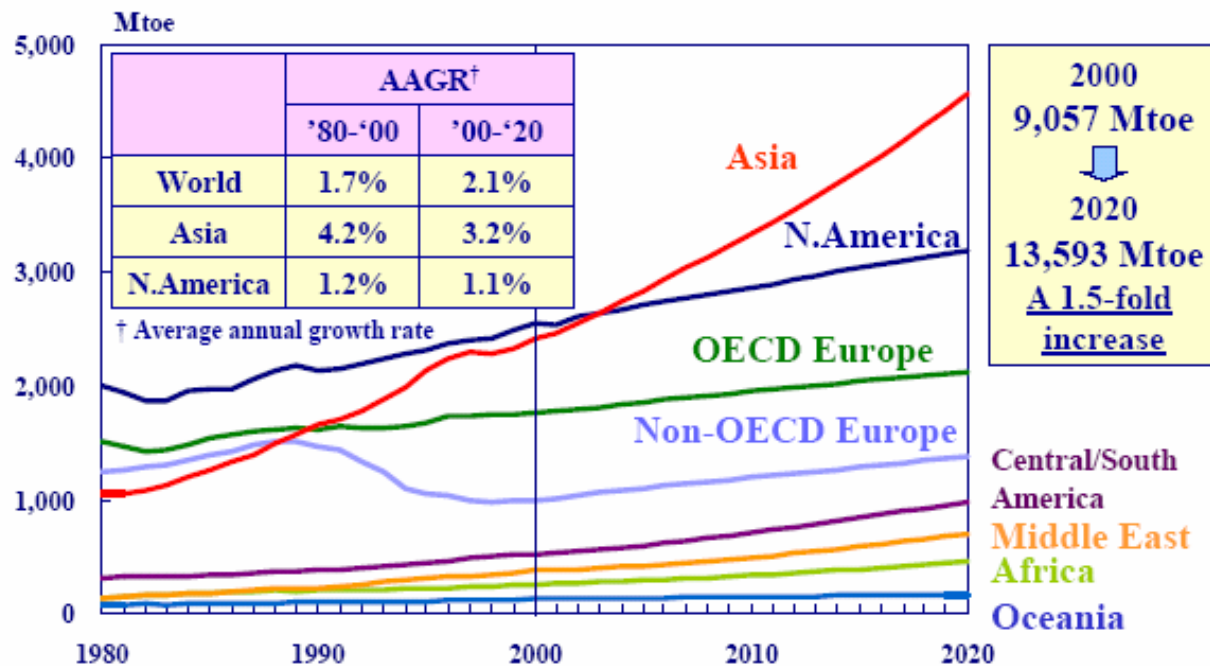
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Washington, D.C.
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Summary

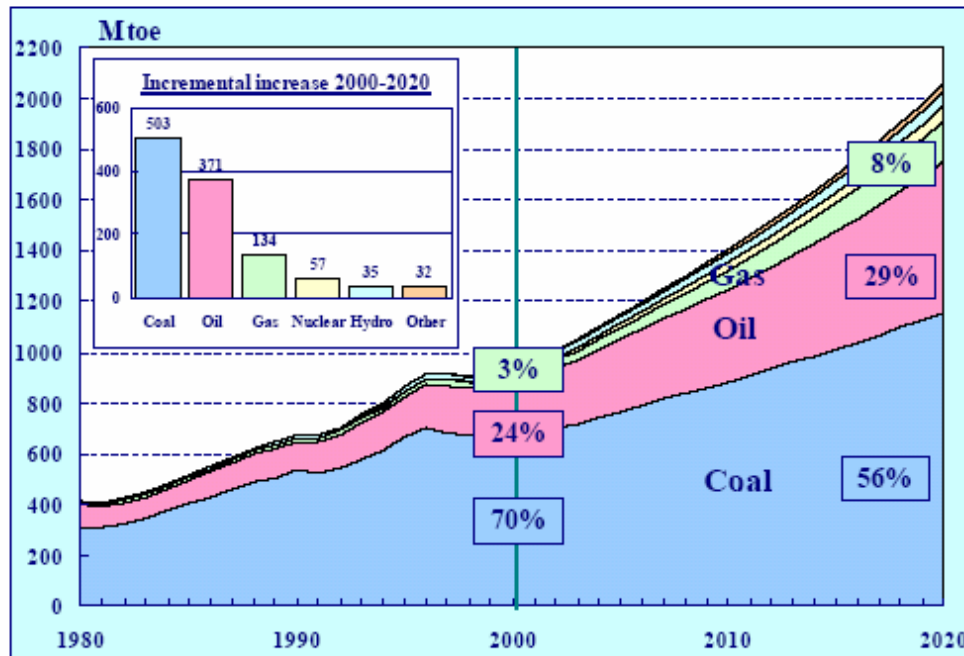
- China will become one of the largest petroleum importers over the next 10-20 years
- It cannot avoid growing dependence on imported oil and, later, natural gas
- Efforts to develop and/or control supplies in and near region likely to impact Asian geopolitics
- Increased energy trade will lead to growing political, economic, and military influence in key exporting countries, esp. Persian Gulf
- China to become major player in energy geopolitics
- What are the strategic, geopolitical implications?

World Primary Energy Demand by Region



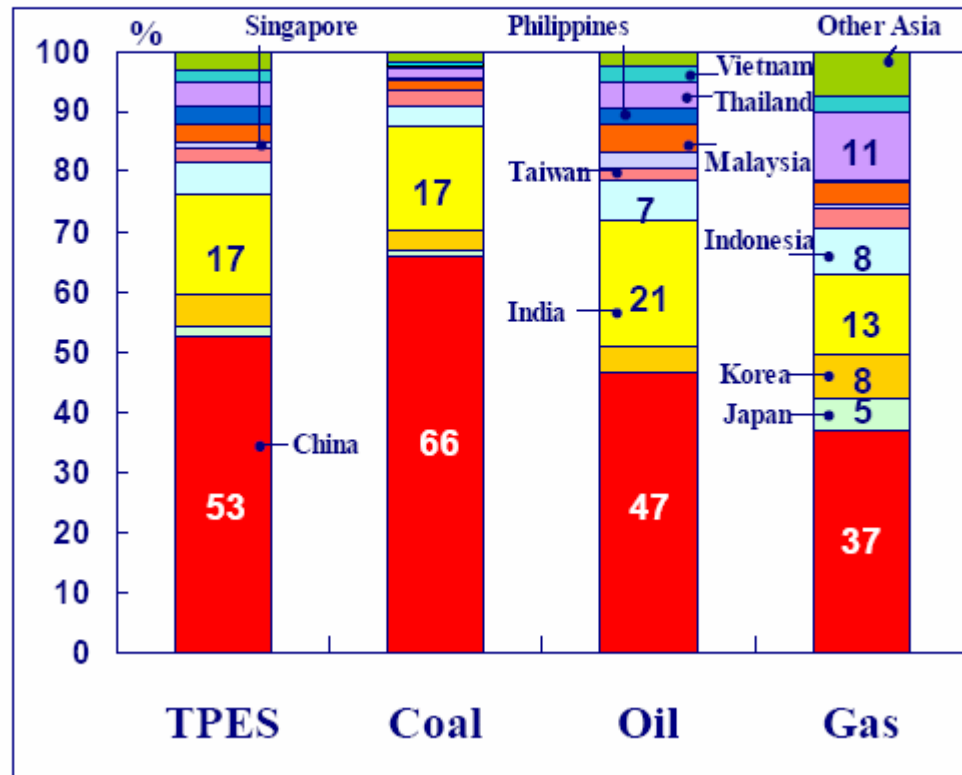
- The increase in world energy demand will center on Asia, the order of which energy demand in 2020 will undergo a roughly 2-fold increase.

Primary Energy Demand in China



- Around 40% of incremental increase will derive from coal, and about 30%, from oil.
- Although the dependence on coal will slightly decline, it still remains dominant fuel in China.
- Oil increase will stem from transportation, and gas increase, from both res/com and power 49 sector.

Incremental Increase in Asian Primary Energy Demand by Fuel and Region



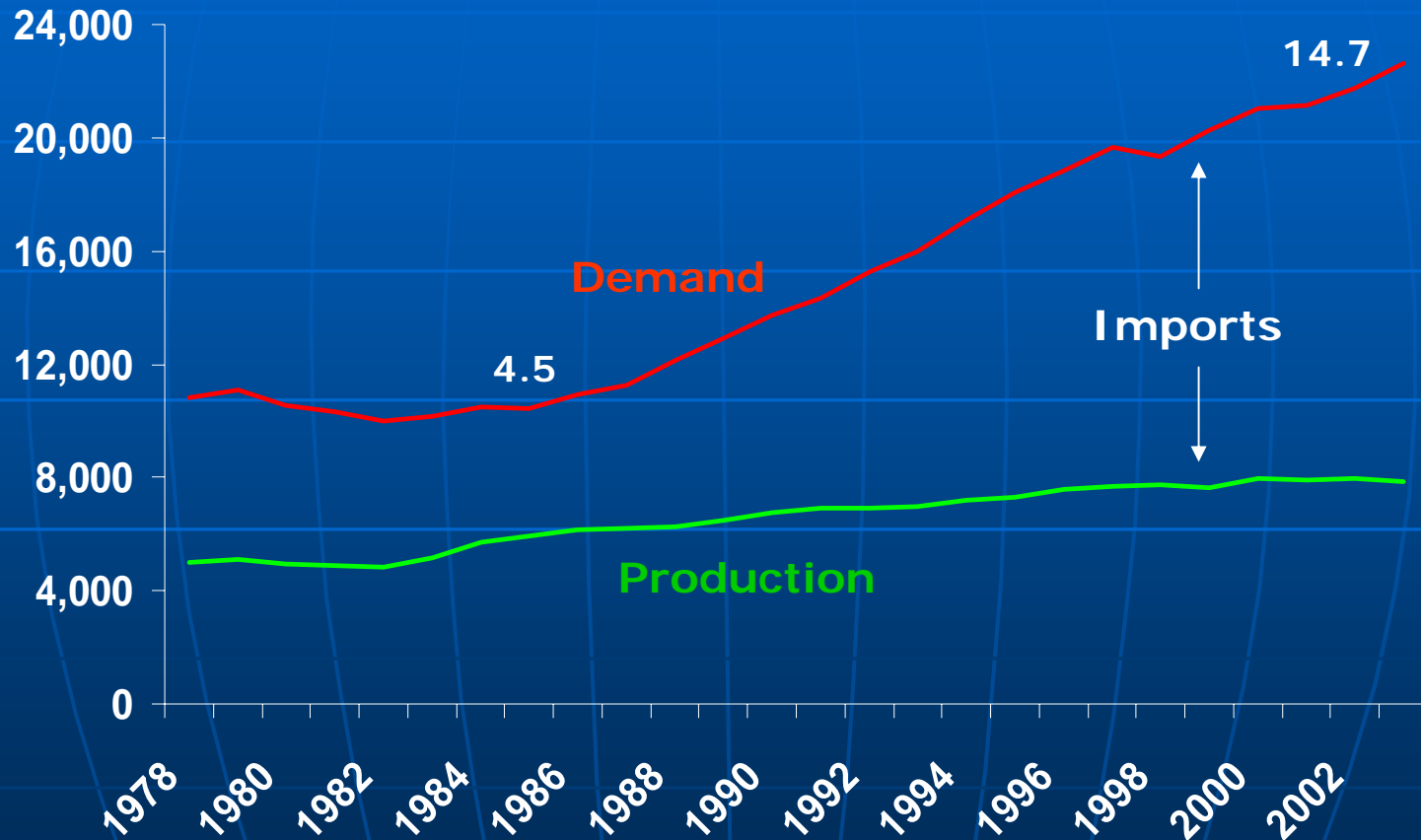
Global Oil Demand Growth 1990-2003

	<u>World</u>	<u>Asia</u>	<u>China</u>
1990	1,097	837	-6
1991	63	606	158
1992	641	971	252
1993	-321	687	251
1994	1,401	1,117	232
1995	1,106	939	245
1996	1,498	774	282
1997	1,827	812	263
1998	381	-429	112
1999	1,633	926	369
2000	846	810	569
2001	443	105	45
2002	705	582	349
2003	<u>1,481</u>	<u>858</u>	<u>603</u>
	11,885	8,871	3,729

Source: BP

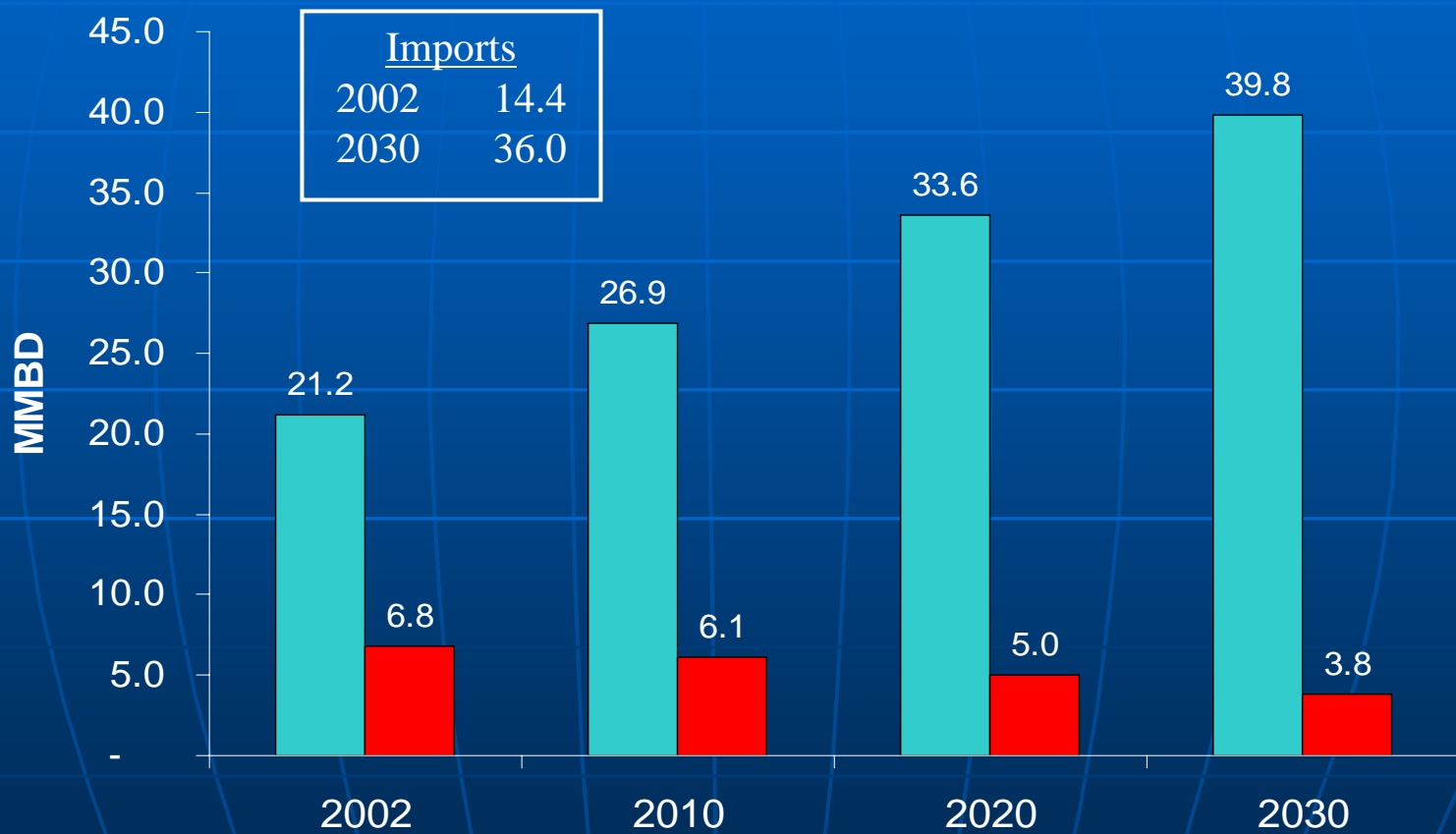
Asia's Oil Imports 1978-2003

(MBD)



Source: BP

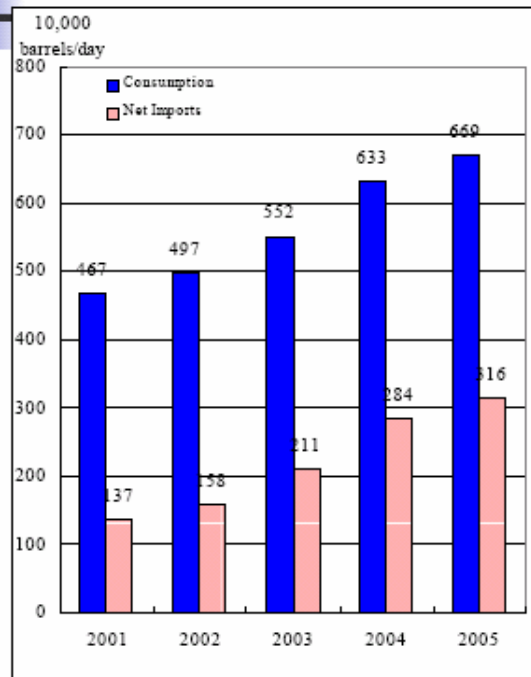
Asia's Future Oil Import Needs



Source: IEA WEO 2004

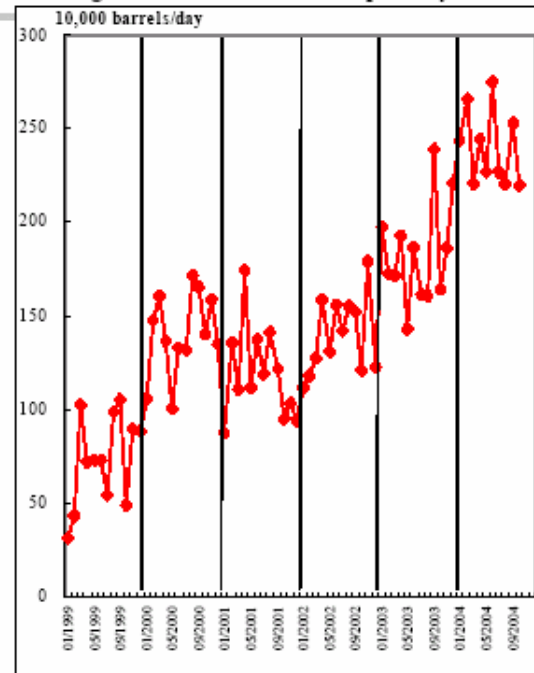
Increasing Chinese Oil Demand & Crude Oil Imports

Changes in China's oil supply & demand balance



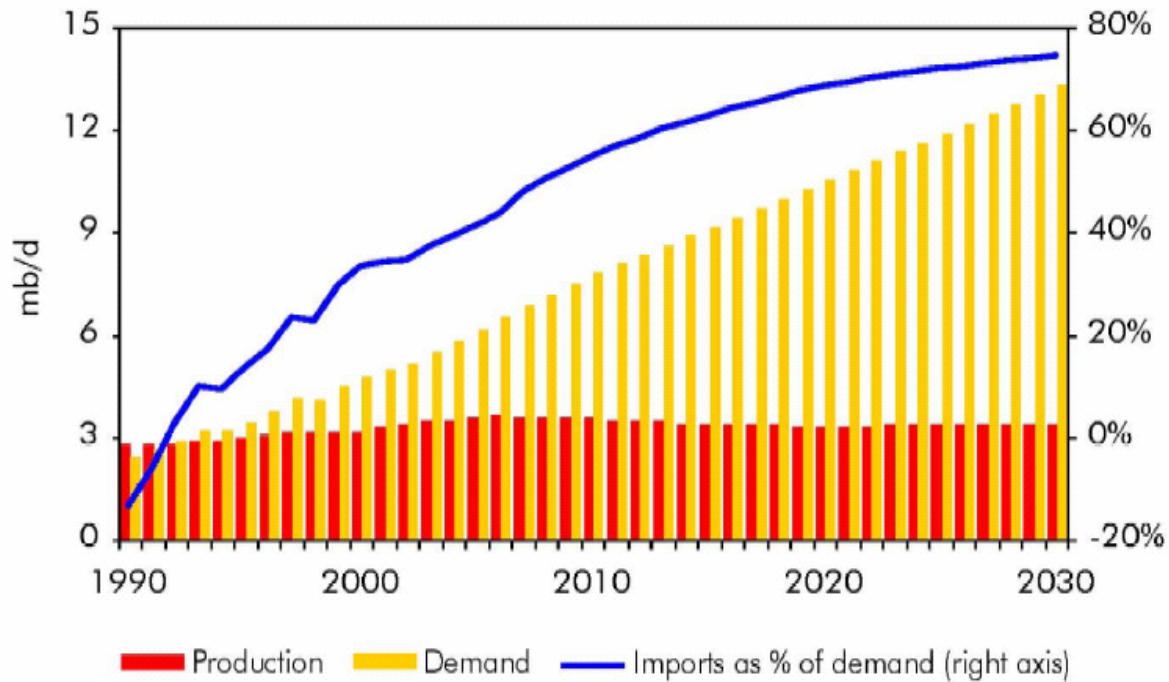
Source: Prepared by the author from IEA Oil Market Report

Changes in China's crude oil imports by month



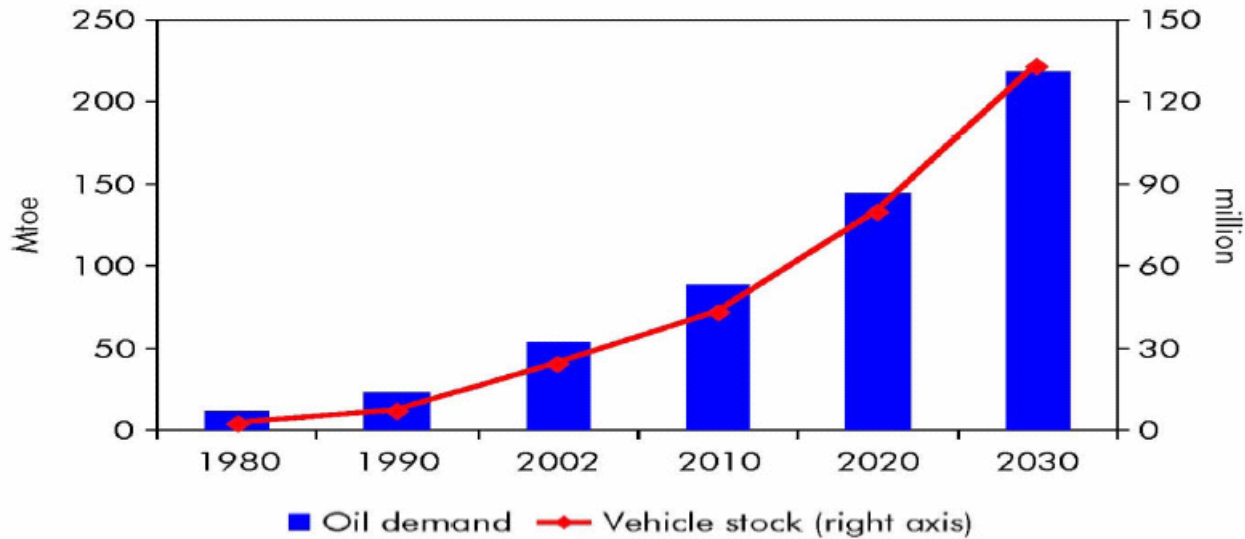
Source: Prepared by the author from Chinese customs statistics and other data

International Energy Agency Long-Term Outlook 2004



China's oil imports will soar from 2 mb/d today to almost 10 mb/d in 2030, about 75% of demand

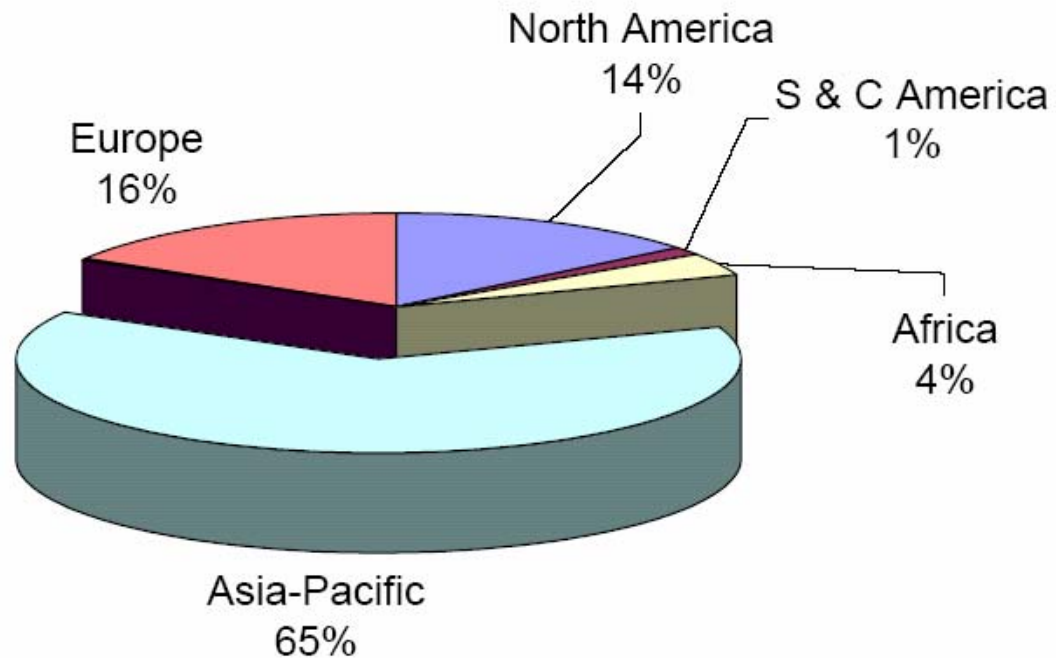
China Vehicle Usage and Oil Demand



China's increasing vehicle usage replaces today's decreasing oil for power generation demand

Chinese oil demand sweetens and becomes more exposed to fluctuations in economic growth

Oil* Exports from the Middle East

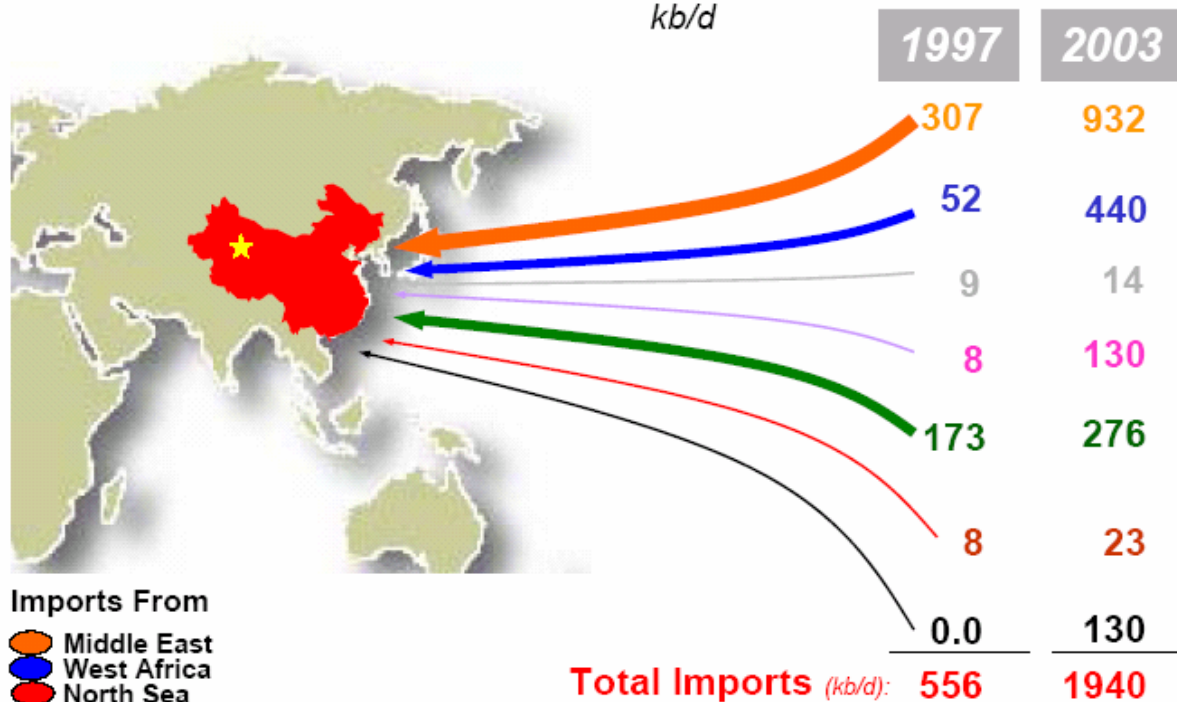


Total Exports in 2003 = 18.9 million barrels per day

* Includes crude and refined products

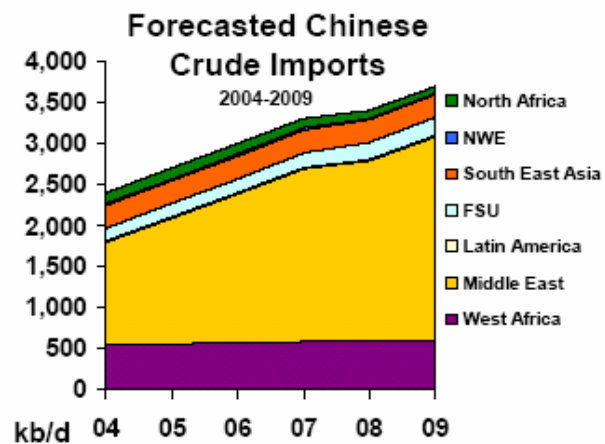
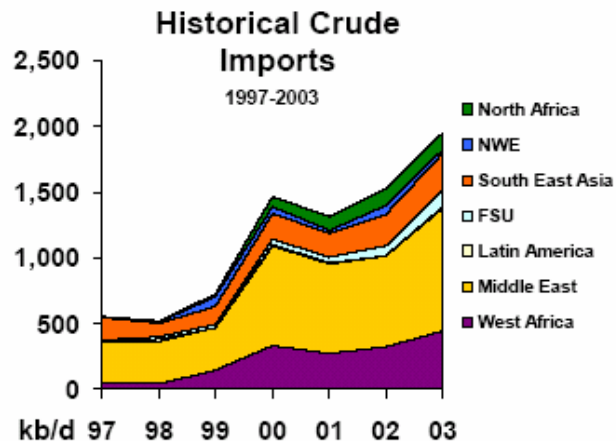
China Will Consume More Middle Eastern Energy

Crude Flows To China
kb/d



- Imports From
- Middle East
 - West Africa
 - North Sea
 - FSU
 - North Africa
 - SE Asia
 - Latin America

Crude Flows To China



Historical & Forecasted



Asia and Mid-East Exports

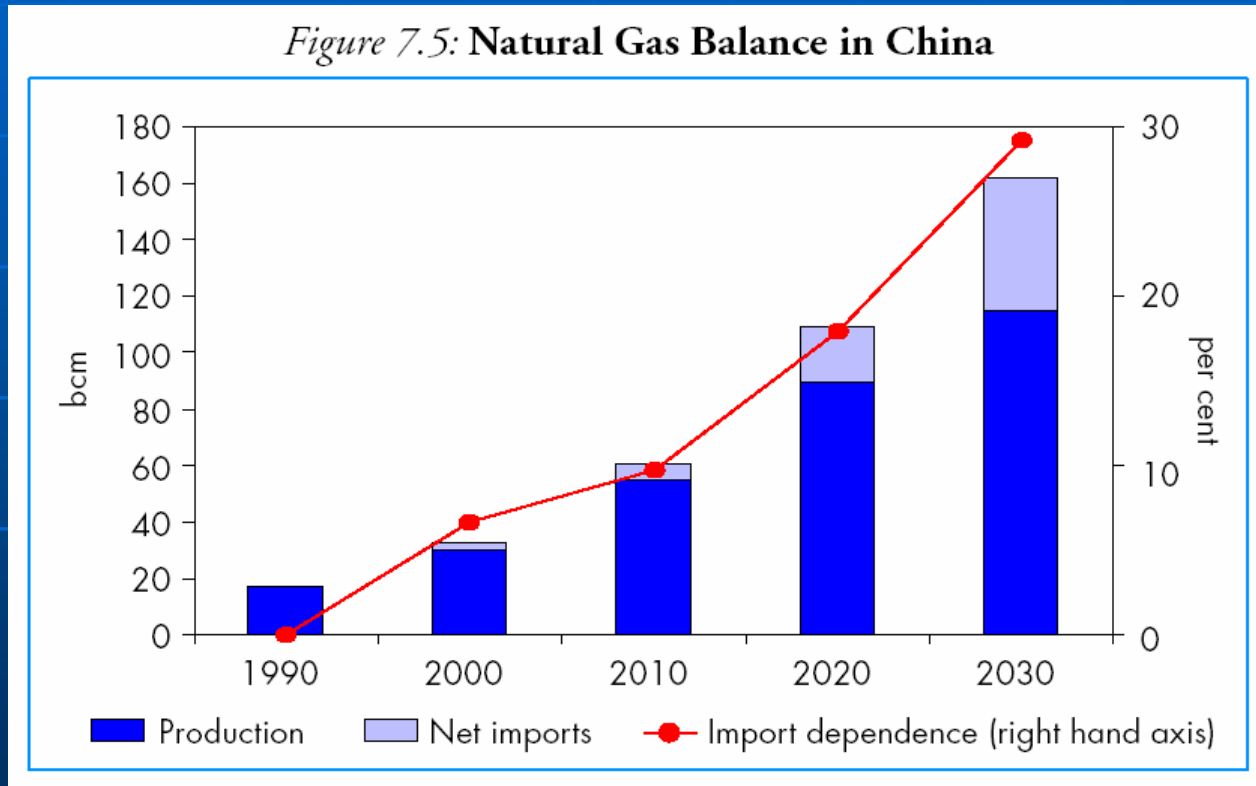
(MMBD)

	2001	2020	Change
Total ME Exports	<u>16.2</u>	<u>25.2</u>	<u>9.0</u>
Asia	9.4	16.8	7.4
North America	2.8	3.2	0.4
Western Europe	3.1	3.9	0.8
Other	<u>0.9</u>	<u>1.3</u>	0.4
Asia Share	58%	67%	

Source: IEEJ 2004

China Natural Gas

Import Dependence Also Rising Long-Term



Source: IEA WEO 2002

China's Oil Import Angst

- High prices, oil "scarcity" fears
- Instability in exporting regions – ME and non-ME
- Destabilizing US war in Iraq, threats to Iran
- Terrorism concerns – producers and transit
- Tanker transit bottlenecks
- Fears of US strategic "encirclement"
- Market dominance by IOCs from US, Europe
- Mistrust, rivalries within Asia
- Suspicion of "China's rise" peaceful or otherwise
- Fear of Chinese oil demand growth, price impact
- Increasingly capricious, politicized Russian oil and gas policies

“Energy Nationalism”

- National security – top leadership concern
- Zero sum: Geopolitics and “Geo-phobias”
 - Strong energy National Champions – “Go Out”
 - Diversified equity stakes in global E&P
 - Long-term crude and gas supply contracts
 - Pipelines to diversify transit risk
 - Beijing “Oil Diplomacy”
 - Cross-investment
 - Offshore maritime supplies: East, South China Seas
 - Sea Lanes – gradual naval, submarine build-up
 - Creation of SPR – currently four locations being built
- Converging on Persian Gulf, Central Asia, Russia, Africa, Latin America, Canada

Impact on Global Oil Markets

- Depends on global market conditions
- Big factor, but not only one in price rise
- China's imports rise from 2 to 11 MMBD by 2030
 - Asia imports to rise from 14 to 36 MMBD by 2030
- Zero-sum scramble risks recurrent price spikes
- Uncertainty on long-term transport demand
- Uncertain demand management policies
- Weak supply disruption response policies - SPR
- Bilateralism weakens market flexibility
- Growing competitive concern for IOCs

Impact on Asian Geopolitics

- How does Asia handle China's rise
- Potential to aggravate regional rivalries
 - Japan
 - Russia
 - India
 - Southeast Asia
 - Maritime boundaries and sea lanes
- APEC searching for cooperative role
- Northeast gas pipeline cooperation

China and Russia

- Asian, China demand drawing Russia into Asian geopolitics
- Fit Russian supplies and Chinese demand
- Converging interest in “multipolar world”
- Russian energy strategy being re-nationalized
 - Proving to be unreliable partner
- Strategic alliance also limited by rivalries
 - Russian fears of Chinese economic power
 - Chinese suspicions over Japan, efforts to contain China

Risks to U.S.-China Relations

- Strategic competitors or partners?
- China distrusts U.S. power over oil supplies
- Rising capability to impact key U.S. energy security policies: Iran, Sudan sanctions UN, Myanmar
- China-Middle East Nexus to grow
- Reaching out in Central Asia – SCO
- Venezuela, Canada involvement
- Growing environmental concerns

U.S. and China's Energy Insecurity

- Prepare for competitor for energy influence
- Multilateral approach to supply crisis
 - IEA involvement
- More reliance on global market flexibility
- Stronger Asian regional energy cooperation
- Regional Strategic Petroleum Reserve
- More efficient transport technology
- Technology, capital for boosting domestic supplies
- Oil demand policies, pricing, market reforms
- Reassurance on open Sea Lanes
- Reduce China-Taiwan tensions
- Persian Gulf policy, arms trade