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# Geopolitics of Energy and Asia

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# Energy Insecurity

- What's new?
- Is Asia's emergence a path to conflict?
- If Asia and energy equals conflict, what policies will mitigate this clash?


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# The U.S. Energy Problem

- Is it really a "problem?"
- Whose problem is it?
- Who is responsible? (whose fault is it)?
- Must the solution be conflictual?


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# What's the Problem?

- Global growth increases fuel demands
- Global growth has accelerated, particularly in Asia. Has led to demand pressure and higher prices
- Are higher prices a "national" problem?
  - yes, if you are poor
  - no, if you are not poor
- Are higher prices an "international" problem?
  - not if you are a producer
  - not necessarily if you are a rich consuming nation
  - can be, if you are a poor country growing rapidly
- Yes, if you have the illusion that the U.S. can or should be energy independent
- Focus on oil (as a component of energy)


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# Who Caused the Oil Problem? "...round up the usual suspects"

- OPEC
- The war in Iraq
- Major oil company conspiracy
- The Chinese (Indians)
- U.S. energy policies
- Alan Greenspan

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# OIL is

- A global business (the first one)
- Essential to a modern, industrial economy
- A huge generator of tax revenues
- Embedded in the national politics of both consuming and producing countries
- "Strategic," and now largely in the State domain rather than in the Market domain

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## Oil is 'Strategic' which means it is political

- Consuming States intervene in oil markets because price volatility creates distrust of markets and politicians like to claim "solutions"
- Producing States intervene in oil markets because of the attraction of tax revenues
- Both claim State Interest dominates private (Market) interests. (belief that markets fail)

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## Oil Myths that affect policy

- As prices rise, consumption falls
  - This ignores growth. More typically, when consumption rises in a sustained way, prices will tend to follow until supply catches up.
  - ignores price effect on consumption and substitution
- Higher prices will stimulate supply (the catch-up)
  - catch-up takes years because of long lags between discovery and oil flows to the market
  - a "technology" solution is just around the corner
- We're running out?
  - No. Total proven reserves have continue to grow, but consumption growth has swamped production growth in recent eliminating most of world's spare capacity
  - we have run out of spare refining capacity, as 'Katritra' showed

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## Some Oil Truths (that should influence policy)

- Oil is a global business
  - meaning strictly national solutions to the energy problem are generally futile and maybe sources of conflict
- Supply development used to be the province of companies
  - The State now rules weakening the market's influence. This elongates "catch-up" times
- Long lags between the recognized need for increased supply and its actual development
  - uncertainty about demand persistence creates higher effective hurdle rates and longer "catch-up" times
  - long lags can mean managerial focus on short run returns
- Oil has very low short run price inelasticity but higher income elasticity. Growth usually swamps price change.
- Oil History shows long run "lows" and short run highs
- Supply development focuses on expected long run prices

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## Five Drivers of Higher Prices

- Demand Shock vs. Supply Shock
- Erosion of Spare Capacity
- Inadequate Supply Developments
- Financialization of the Oil Market
- Geopolitical Uncertainties

### Where does Asia fit in this paradigm

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## Economic Growth in Asia

- China and India are growing rapidly
  - China was growing at nearly 9% per year and India may be capable of 7-8%
  - Japan has recovered and rest of Asia is growing
- Growth stimulates 'fear' among Asian states that their development will be throttled by oil shortage
- National economic strategy can affect how demand is manifest and national political strategy often refuses to let internal prices rise
- China and India offer contrasts in policy
  - the "automotive" model
  - restraining domestic prices for political purposes
  - high internal prices in India

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## Sources of Conflict

- Rapid growth in Asia will increase oil demands while U.S. also grows
- U.S. pursues 'increased supply' strategy largely ignoring 'conservation'
- Holding prices down will require a very large increase in PG oil output unless non-Opec supplies increase dramatically
- What if PG doesn't expand sufficiently?

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## The Prongs of the American Energy Dilemma (or...When Does the Fun Begin?)

When prices go down!

- High prices needed for investment and demand conservation
- Rational energy policy requires greater upstream and downstream investment and domestic conservation
- Higher prices stimulate alternatives, but poison the political environment

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## Economic Irrationalities

- Oil Is Fungible
  - national ownership matters less than total supply growth
- What the Unocal debate revealed
  - all politics are local
  - large political rewards for national champions
- What the Unocal debate ignored
  - If you want less dependence, you need to use less oil
  - lower oil demands will be stimulated by higher prices
- What 'Katritra' revealed
  - too much of our refinery capacity is vulnerable
  - refineries get built where they are allowed, even if vulnerable

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## Political Irrationalities

- Cut Dependence by Promoting a High Cost Alternative (biofuels)?
- Hide High Costs (ethanol subsidies)
- Protectionist Incentives
  - tariff on imported ethanol
  - disguised subsidies to growers and processors
  - take MTBE out of the gasoline equation

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## Politicians Like Energy Problems

- Irrespective of country
- Propose infeasible solutions
- If it doesn't fly in the "national" arena, it will be called an "international" issue and geopolitics will be cited
- International issues often lead to conflicts or crises, but rarely cooperation

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## Dubai Ports: Son of Unocal

- Rejecting Dubai Ports confirms U.S. "rules" are made to be broken
- Created stronger incentives for bilateral supply relationships between Asian consuming States and oil supplier States (anti-market)

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## Past U.S. Policies

- Self-fulfilling prophecies
  - more dependence on the PG
  - retarded development of alternatives
- Created Incentives for non-cooperation among 'competing states'

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## Soundbites or Sound Policies

### New CAFÉ standards announced

Sen. Dianne Feinstein, D-Calif., said it "missed an opportunity to break our nation's addiction to oil, reduce our greenhouse gases, and decrease the price of gas at the pump."

Transportation officials estimated the plan would add about \$200 to the cost of each vehicle, but consumers likely would recoup that cost in fuel savings in four years, they said.

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## The Solution Path

- Recognize the "enemy is us"
- Forget Jessup's Law
- Transportation Fuel is the issue
- To use less oil, we must use less gasoline and diesel (conservation)
- Conservation requires higher prices (taxes?)
- Advocacy of higher oil prices requires political courage
- If your policies put you in a hole, stop digging!

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## DATA APPENDIX

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## Oil Demands

Year	United States	Japan	Total OECD Europe	China
2001	19.65	15.33	4.92	
2002	19.76			
2003	20.03			
2004	20.73			
2005	20.64	15.52		6.87

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## World Oil Consumption

Region/Country Group	2002 (Million Barrels per Day)	2025 (Million Barrels per Day)
North America	~25	~35
Emerging Asia	~15	~35
Western Europe	~15	~15
Mature Market Asia	~10	~10
EE/FSU	~10	~10
Middle East	~10	~10
Central and South America	~10	~10
Africa	~5	~5

Sources: 2002: Energy Information Administration (EIA), *International Energy Annual 2002*, DOE/EIA-0219(2002) (Washington, DC, March 2004), web site www.eia.doe.gov/real; 2025: EIA, *System for the Analysis of Global Energy Markets* (2005).

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DOE International Energy Outlook 2005 23

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## Will Supply Grow Enough?

Year	Mature Market Economies	Transitional Economies	Emerging Economies	OEPEC
1970	~15	~10	~5	~10
2002	~25	~15	~10	~20
2010	~25	~15	~10	~20
2025	~25	~15	~10	~20

insufficient growth (circled around 2002-2010)  
hoped for growth (circled around 2010-2025)

Sources: 1970 and 2002: Energy Information Administration (EIA), *International Energy Annual 2002*, DOE/EIA-0219(2002) (Washington, DC, March 2004), web site www.eia.doe.gov/real; 2010 and 2025: EIA, *System for the Analysis of Global Energy Markets* (2005).

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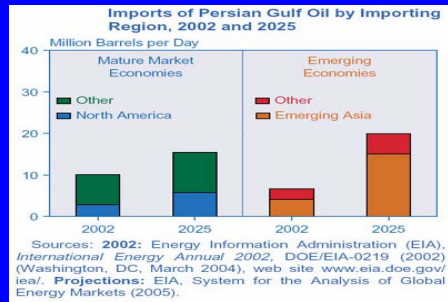
DOE International Energy Outlook 2005 24

# OPEC Production

OPEC production Source (HETCO)

	Dec-04	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06
Saudi Arabia	9000	9210	9155	9190	9150	9150	9200
Iran	3950	3875	3900	3900	3850	3820	3820
Iraq	1850	2000	1750	1730	1585	1610	1800
Kuwait	2100	2240	2265	2240	2200	2200	2200
UAE - Total	2480	2500	2500	2490	2510	2510	2510
Qatar	790	800	800	810	810	820	820
Neutral Zone	600	620	620	620	600	600	600
Venezuela	2680	2605	2590	2575	2570	2570	2570
Nigeria	2260	2420	2465	2470	2470	2380	2240
Indonesia	950	925	930	930	930	910	920
Libya	1650	1680	1665	1670	1700	1700	1720
Algeria	1460	1370	1370	1370	1375	1375	1355
<b>Total Opec</b>	<b>29770</b>	<b>30225</b>	<b>30010</b>	<b>29995</b>	<b>29720</b>	<b>29645</b>	<b>29755</b>
Opec NGLs	3800	4230	4280	4350	4370	4370	4370
Tot. Opec. Liq	33570	34455	34290	34345	34090	34015	34125

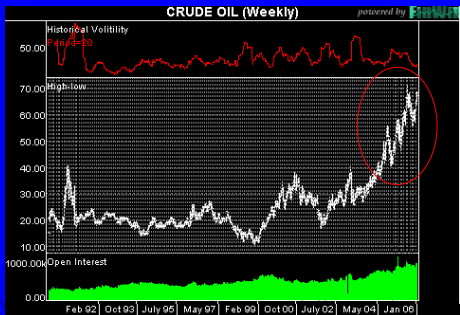
# Oil Imports from PG



# Crude Oil Prices since 1861\*



# Oil Price History Since 1992

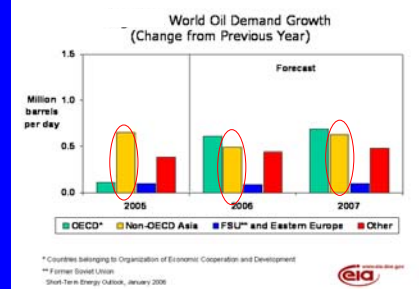


# Markets Express Fear



From Backwardation to Contango

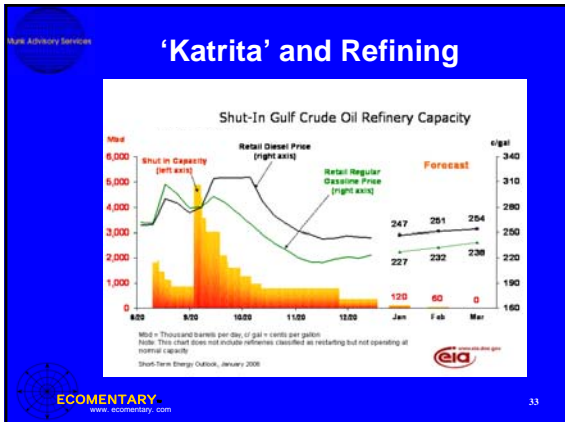
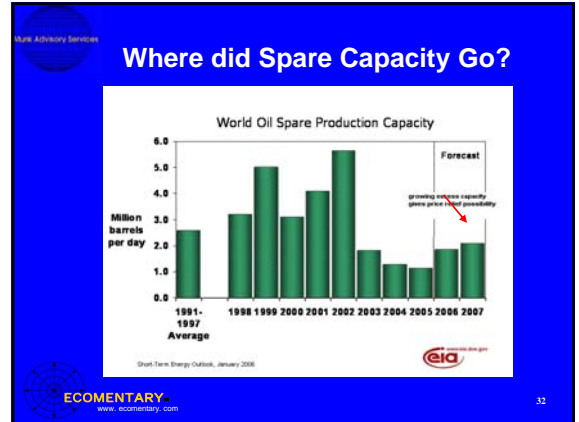
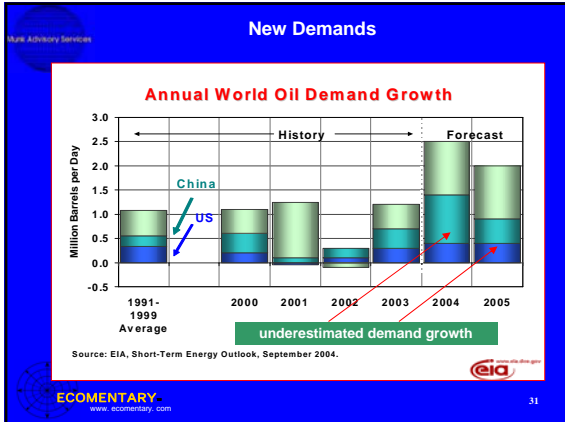
# Demand Shock To Continue



\* Countries belonging to Organization of Economic Cooperation and Development  
\*\* Former Soviet Union

Source: Shell Energy Outlook, January 2006





- ### "Katrita" Lessons
- NIMBY dictates refinery locations
  - In the middle of Hurricane Paths
  - Impact of Refinery Loss depend upon
    - luck
    - inventories
    - the correct policy being deployed
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