Asian Premium of Crude Oil and Importance on Preparation of Oil Market in Northeast Asia

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Contents of This Report

1. The Existence of Asian Premium and Its Impact

2. Change of Pricing for Asia and Reduction of Premium (Short-term Measures)

3. Importance of Oil Product Market Preparation in Asia and Unity among Consuming Countries

4. Spot Trading of Middle East Crude and Elimination of Asian Premium (Middle- or Long-term Measures)

5. Global Links of Oil Market and Stabilization of Crude Oil Price (Conclusion)
Crude Oil Pricing System since 1987

Pricing formula: \( P_x = P_m \pm a \)

- \( P_x \): Crude oil export price set by producing country
- \( P_m \): Marker crude spot price
- \( a \): Adjustment factor

Marker Crude

Crude oil which provides the benchmark price in a given crude oil market
Asia Premium of Crude Oil

($/B)  
-2.5  -2.0  -1.5  -1.0  -0.5  0.0  0.5  1.0  1.5  2.0  2.5  3.0


AL Formula Price for Asia
AL Formula Price for Europe
AL Formula Price for USA

Average since 1991 0.97$/B
Average since 1997 1.16$/B

AL for Asia - AL for Europe
Difference between Marker Prices and Difference between adjustment factors

($/B)  

Price to Asia - Price to Europe  

Price to US - Price to Europe

Adjustment factor difference

Marker price difference

91 92 93 94 95 96 97 98 99 00 01 02
Income Transfer due to Asian Premium of Crude Oil

(Billion $)

By Energy

- LNG
- Oil

By Region

- Japan
- Other East Asia
- Other Asia

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Asia Premium Having Large influences to International Competitiveness in Economy

- Additional income transfer of 5 to 10 billions $ from Asian consuming countries to oil producing countries

- Worsening refinery margin since 1999—recently expanded to minus value of about 1$/B
  # reducing refinery margin due to demand slowdown and surplus refining capacity since 1997
  # minus refinery margin due to higher crude oil price since 1999
  # lowering refinery operation in Singapore, Korea and so on

- Asia Premium is not limited to oil but exposed on whole energies
  # Price of other energies such as LNG is raised through crude oil price
  # LNG has an original problem for Asian premium
  # LPG contract price showing ups and downs like emergency time – one-way force by producing countries
Asian Premium of LNG

(US$/MMBtu)

Europe

USA

Japan (Asia)

1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Crude Oil
Residual Oil
Pipeline Gas
LNG

89 91 93 95 97 99 01 88 90 92 94 96 98 00 02 89 91 93 95 97 99 01
Proposal (1) : Pricing Based on Brent

- AL Formula Price to Asia
- AL Formula Price to Europe
- AL Trial Calc. Price to Asia (Based Brent)

Average premium 1.18$/B since 1997

Average difference of trial price 0.06$/B

Trial AL to Asia - AL to Europe
Problems in Pricing Proposal (1)

- Price formation not reflecting oil supply-demand in Asia
  
  # Brent price is formed with reflecting oil supply-demand in Europe
  # Easy to be influenced by special problems in US oil supply-demand
  # Not always consistent with oil supply-demand environments in Asia

- Problems of price manipulation due to production decrease in Brent
  
  # The existence of price manipulation such as notorious squeeze
  # Twin market relation between physical spot / forward and IPE future
Product Price Difference between Singapore and Rotterdam
(Singapore price – Rotterdam price)

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Gasoline
Kerosene
Gas Oil
HS Residual

Price Differential ($/B)
Importance of Oil Market Preparation in Asia

• Oil market not prepared in Northeast Asia, large consuming area
  
  # Large consuming area with oil demand of 12 millions B/D which is a similar size to Europe/US
  # Oil market is not prepared in the center of large consuming area
  # Singapore market is a just intermediate position for northeast Asia
  # Necessary to send information signals reflecting energy competitive relations in large consuming area

• Required conditions for preparation of oil product market in Asia
  
  # Streamlining and expansion of oil product trades within Asian region
  # Deregulation and privatization of oil industries in Asian Consuming Countries
  # Unification for quality standard of oil products in Asia
Proposal (3) : Pricing Based on AL Spot Prices

AL Formula Price to Asia
AL Formula to Europe
Trial AL Spot Price (Europe, US and Asia Average)

Premium Average 1.18 $/B since 1997
Average Difference of Trial -0.10 $/B

Trial AL to Asia - AL to Europe
Global Links of Oil Markets

Flow of Crude Oil

Links of Crude Prices

Links of Product Prices
Spot Trading of Middle East Crudes and Stabilization of Crude Oil Price

• Factors affecting violent fluctuations of crude prices
  # Too high OPEC price band and production controls
  # Weakened supply cushions such as insufficient refining capacities and low level of oil inventory
  # Overshooting reactions in future market and bottlenecks in spot market
  # Reflection of marginal supply-demand by marginal price marker

• Formation of marker price by spot trading of ME crudes
  # ME crudes are the mainstream reflecting global supply-demand balance
  # Without direct interventions, spot trading is consistent with production controls
  # Stabilization of crude prices is serious subject also for oil producers

Some room to suggest the adoption of spot trading to oil producers from the viewpoint of stabilization of crude prices?
Viewpoints on Crude Oil Price Level in Asia

- One-way forced price by producer
- Competitive level with alternative crudes in Asia (Competition between ME and African, North Sea crudes)
- Price set up by producers through considering competitive conditions in the market
- Level where FOB price at delivery point in ME producer are consistent among consuming areas

Issues which ME producers should also consider:

- Situations which consumers should avoid with first priority
- Situations which consumers should effort to reduce premium

Crude oil price level which is not a handicap for Asia in international competitions of economy is required – Issues which ME producers should also consider.
Middle and Long-term Subjects aiming at Reducing Asian Premium

• Preparation of oil product markets in northeast Asia and Asia
  # Streamlining and expansion of oil markets in various consuming areas
  # Formation of the linkages of oil markets between Asia and Europe/US

• Developments of alternative crudes except ME crudes
  # Procurement of increasing crude oils in the West of Suez such as West African crudes
  # Developments of neighboring oil resources such as Sakhalin and east Siberia
  # Developments of liquid fuels (GTL) from coal and natural gas

• Further reinforcement of flexibilities in consuming areas
  # Flexible combinations of crude oil processing and oil product import/export
  # Reinforcement of flexibilities in fuel selection in consumer sides