Oil and Development

The Oil Rush:
Of the world proven petroleum reserves, the ME & NA account for nearly 70 percent. The leading nations in the region are Saudi Arabia, Iraq, Kuwait, UAE, and Iran. Oil exports vary across countries, depending on production capacity and financial need. During 1986-91, the largest producers were Saudi Arabia, Iran, Iraq, UAE, and Kuwait.

Organization of Petroleum Exporting Countries (OPEC) was formed according to the 1960 Baghdad Agreement. Its founding members were Iran, Saudi Arabia, Kuwait, Iraq, and Venezuela. Subsequently, UAE, Qatar, Algeria, Libya, Indonesia, Nigeria, Gabon, and Ecuador joined the organization. Recently, however, Ecuador has left the cartel.

Between 1960-70, the price of crude oil averaged less than $2 per barrel and exports were limited. In 1972, the average price rose by about 50 percent due to a political action by the Shah of Iran to generate more foreign exchange to finance military expansion and modernization (i.e., the Nixon Doctrine). By Jan. 1973, it had gone up to about $2.60.

In October 1973, oil emerged as a "political weapon." The Arab members of the OPEC or OAPEC imposed an oil embargo against the West for its support of Israel in the fourth Arab-Israeli war. Consequently, oil prices began to rise sharply to over $5 by Dec. 1973, about $12 by Jan. 1974 (the first oil shock). The Iranian Revolution and ensuing Iran-Iraq War reduced the supply of oil to increase its price to about $18 by Jan. 1979, and nearly $40 by Dec. of that year (the second oil shock).

However, the 1980s and 1990s have witnessed frequent fluctuations along a general downward trend in oil prices due to excess supply of the oil in the market, slow growth of the demand for oil in the consumer countries, and increased production by non-OPEC countries (i.e., Norway, UK, and Mexico). The average price fell to less than $30 in 1984 (Iran-Iraq War), rose to $20 in 1990 (Persian Gulf War), and fell again to about $15 in 1994 and less than $12 in 1998. The price has risen recently to over $20 and is anticipated to stabilize between $15 to 25 in the near future.

The "oil rush" has brought massive amount of windfall gains to the producer countries in the region caused by huge income transfers form consumers to producers. For example, Saudi Arabia's revenue rose $5 billion in 1973 to a record high of $93 billion in 1980. About one-third of this revenue increase was due to quantity increase and two-thirds to the price increase.

The Oil Market:
Demand for oil depends on both economic and non-economic factors. The economic factors include own price, price of substitute products, consumer income and preference. The oil price decline of the 1980s and 1990s have been partly caused by a slow growth of the demand for oil due to the development of alternative sources energy (e.g., natural gas, nuclear) and changing consumer preference for oil consumption. As far as the oil multinational companies are concerned, the non-economic factors include availability and reliability of the supply, probability of nationalization of oil facilities, demands over loyalty levels, and pressures to employ and train local labor.
Structure of the ME & NA oil market determines the supply and the price of exported oil. In particular, the OPEC, behaving as a profit-maximizing cartel, controls the supply of OPEC oil.

In the 1970s, the OPEC used a price-fixing strategy, with the differentials between the members (due to production costs) set at levels, which were expected to guarantee sales of crude oil for each member of the cartel. Members' only obligation was not to cheat by cutting the price. This tacit agreement did not last, as large and financially needy countries (e.g., Iran, Iraq, Indonesia, and Nigeria) did not comply.

Since the 1980s, the OPEC is using an output-fixing strategy, which allocates the production limit for the organization between member countries and have them sell their quota at flexible prices. Saudi Arabia with its large reserves and production capacity has been the balancing factor in making this strategy succeed.

With the growth of the independent exporters (e.g., Norway, UK, Mexico), the OPEC is said to be a "residual producer" rather than its traditional role of a "price leader." As shown in Figure 7-1, the market price is determined by the "global demand" and "non-OPEC supply. At this price, there is no "residual" demand. As the price falls below this price, the market share of the OPEC will rise at the expense of the non-OPEC producers.

Commodity Exchange Pricing Strategy
- Spot Price: An agreed upon price for a quantity transaction at a given point in time
- Future Price: An agreed upon price for a quantity transaction at a specified future delivery date (e.g., 3 or 6 months). This type of contract is beneficial to the buyer because delivery is assured, but will be detrimental in case of a price increase
- Option Price: An agreed upon price plus a transaction cost for a quantity transaction at a specified future delivery date. The buyer, however, has no obligation to carry out the transaction and has the option to transfer the contract to a third party. This type of contract will enable the buyer to hedge against unexpected price increases (see the numerical example on page 140)

Effects of the Oil Rush on Development
Effects of the oil rush on economic development of the ME & NA involve an analysis of benefits and costs of such massive windfall income transfers to the exporting countries.

Positive Effects:
- Finance industrial development
- Finance agricultural development
- Finance technological change
- Invest in human capital (education, health, and welfare)
- Invest in infrastructure
- Develop petrochemical industries
- Expand employment for domestic and foreign labor
- Increase income and standard of living
- Invest in financial and real estate markets of the First World
- Provide foreign aid to non-oil Third World
Negative Effects:
- Rely on "dependent" growth and "uneven" development
- Enhance government control in economic, social, and political activities
- Exacerbate internal and regional income and wealth inequality
- Finance military growth & modernization and greater involvement in regional military conflict
- Finance international terrorism
- Use the economic power to influence politics
- Fail to achieve transfer of technology, industrial diversification, and absorptive capacity development
- Enhance corruption, cultural confusion, political rivalry
- Produce inflation in their and oil importer economies

Have the positive effects outweighed the negative effects? Why or why not?