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OPEC IN THE WORLD ECONOMY

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OPEC IN THE WORLD ECONOMY

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Part 1

INTRODUCTION

The objective of this paper is to discuss the effects of the two oil price shocks of 1973 and 1979 on the industrial countries, the developing countries, especially the non-oil-developing countries and the OPEC contries. The paper is divided into five major parts: Partl is an Introduction; Parts 2 and 3 discuss the effects of the oil price shocks on the economies of industrial countries and the developing countries. Part 4 examines the effect of the increased oil prices on the economies of the OPEC contries. Part 5 offers some conclusions.

The OPEC Cartel (Organization of Petroleum Exporting Countries), was formed on September 14, 1960, by Iraq, Iran, Kuwait, Saudi Arabia and Venezuela at a meeting in Baghdad. 1 The immediate cause was the reduction, by the oil companies, of the posted price for crude oil in 1959 and 1960. 2 These reductions were implemented at a time when the governments of oil producing developing countries were becoming increasingly concerned about the price of their oil. Until

1 Mana Saeed Al-Otaiba. "OPEC and the Petroleum Industry". Crom Helm Ltd., London, 1975, p.57.
2 Zuhayr Mikdashi. "The Community of Oil Exporting Countries". London, George Allen & Unwin Ltd., 1972, p. 29-31.

the "fifty-fifty" profit-sharing agreements of 1950-54, they had received a specified royalty amounting to about 20 to 22 cents a barrel; hence their revenues were in no way dependent on the selling price, and, indeed, the governments would have tended to favour profit-sharing agreements. 3

However, with the introduction of the "fifty-fifty" sharing agreements, price became the major variable affecting revenues because cost of production, at the extremely low figure of 10 to 20 cents a barrel, could hardly be compressed further. Shortly after the above-mentioned reduction in posted prices, the first Arab Oil Congress, which Iran and Venezuela attended as observers, was held, in April 1959, in Cairo. The Oil Congress offered a handy from for expressing oil exporting countries' dissatisfaction and apprehension over these reductions, despite the fact that, according to their agreements, concessionaires had no obligation to consult Middle East governments on changes in posted prices. The first meeting took the form of an oil consultation commission, a forerunner of the Organization of Petroleum Exporting Countries (OPEC). Venezuela played an active role in starting multinational co-operation in oil affairs, in order to avoid the continued fluctuation in oil prices and its effect on both producers and consumers. "In August 1960, the international oil companies reduced the posted prices further by 8 to 10 cents per barrel", 4 due to

3 Charles Issawi "The 1973 oil Crisis and after" Jaurnal of Post Keynesian Economics/winter, 1978-79, vol 1, No. 2.
4 Zuhayr Mikdashi, Op, Cit, p. 32-33.

an imbalance between supply and demand (Increased production by independent producers, greater export and the rapid exploitation of Libya's oil reserves ushered in a long period of excess supplies and declining prices). This reduction in posted prices implied a reduction in Middle East oil prices by 4 cents and of revenues by $300 million for exports over the period of August 1960 to the end of 1963. Following this priced reduction, representatives from Iraq, Kuwait, Saudi Arabia and Venezuela held a second meeting joined by Iran, during which it was agreed to create a permanent secretariat for OPEC with the aim of coordinating and unifying the policies of its members. In 1965 the oil companies agreed with each of these countries not to claim the royalty as a credit against the 50% revenue share. Under this new formula, the per barrel oil revenues to, for example, Saudi Arabia, increased from 78.7 cents in 1963 to 83.4 cents in 1966. 5

In June 1967 the Arab-Israeli War resulted in the closure of the Suez Canal, which contributed significantly to the emergence of a strong seller's market for oil a few years later. Failure to reopen the canal reinforced the tendency of Western Europe to draw more of its oil from North Africa, whose oil was attractive because of its low sulphur content and its transportation advantage (reduced freight charges over the Gulf States Producers). Dependence on Libya was

5 Dankwart A. Rustow and John F. Jugno, "OPEC, Prosperity and Success". New York University Press. New York, 1976, p.7.

over the Gulf States Producers). Dependence on Libya was further increased by the Civil War in Nigeria, which interfered with oil production in the Biafra region of that country. In early 1970, oil supplies for Western Europe were suddenly tightened by an unexpected rise in consumption and by Syria's disruption of the pipeline (Tapline) that had carried part of Saudi Arabia's oil to the Mediterranean for transshipment to Europe. 6 The Libyan government realized the critical importance of Libyan oil to Western Europe, and demanded that the oil companies increased their posted prices and also accept an increase in the profit share rates, threatening to shut down production if these demands were not met. In February 1971, oil companies and the exporting countries along the Gulf States met in Tehran. They agreed to increase posted prices by about 35 cents a barrel and the government's share of revenue from 50 to 55%. 7

The devaluation of the U.S. dollar in September 1971 precipitated another, more modest round of price increases. In January 1972, the companies granted the OPEC members an additional 8.5 percent increase in posted oil prices. In the summer of 1973, the price of Arabian light oil was approximately 5.7 percent a barrel, more than 80 percent higher than the price that prevailed at the beginning of 1970. 8

6 A.M. El-Mokadem, D. Hawdoe, C. Robinson, P.J. Stevens. "OPEC and the World Oil Market 1973-1983". Eastlord Publishing Ltd., 1984 England.
7 Charles Issawi, Op. Cit, p. 9.
8 Dankward A. Rustow and John F. Jugno, Op. Cit, p.24.

In October 1973 the Gulf States and Iran unilaterally announced an increase in the posted price of oil to $3.65 a barrel, nearly a dollar above the previously prevailing level during the summer of 1973. 9 In addition, an embargo was imposed on shipments to the United States and the Netherlands. Arab oil-exporting countries cut oil production by 25 percent and announced that deeper cuts would be made and their production would be cut to 75 percent of the September 1973 level. 10 Much more serious and lasting in its effects was the great increase in oil prices that the Arab supply restrictions made possible. In December 1974, the Gulf States Producers again took the lead and more than doubled the posted price of crude oil, effective 1 January, 1975. Consequently, average market price appeared to have been raised to about $8.20 a barrel, three times what it had been only a year earlier. 11

Oil price increases and the persistent OPEC balance of payments surplus in the period between the two oil shocks were considered major long run economic problems in many industrial and developing countries. Since 1983, however, the OPEC surpluses have been completely absorbed and the official base price of oil has fallen for the first time in twenty years.

9 Ali D, Johany. "The Myth of the OPEC Cartel", University of Petroleum and Minerals, Dhahran, Saudi Arabia and John Wiley and Sons.
10 Ibid
11 Charles Issawi, Op, Cit.

Part 2

THE EFFECT OF OIL PRICE SHOCKS ON THE INDUSTRIAL COUNTRIES

The most serious problems caused by the sharp rise in oil prices were immediate fall in aggregate demand and the impetus to cost-push inflation generated in the industrial countries. The adjustment process can best be thought of as taking place in several distinct phases: First, during the initial phase the large increase in the price of oil raises the genetal price level and simultaneously transfers income from consumers to OPEC producers. 12 The OPEC producers in turn, accumulate a large fraction of their suddenly increased revenues in unspent financial surpluses. Second, a transition phase occurs in which producers of oil gradually increase their spending out of the higher receipts, (ie: oil-exporting countries increase their purchases from oil-importing countries.) The higher oil bill paid by industrial countries to members of OPEC can be thought of as an excise tax levied by OPEC on industrial countries.

12 Rybczynski, T.M. "The Economics of the oil crisis", Trade Policy Research Center, 1976, chapter 4.

Intially, only the proceeds of this "tax" have been respent by member countries of OPEC on imports. Consumers, paying more for oil products, have had less income available for other purchases, and sales lost by industries producing consumer goods were not offset by increased exports to OPEC. The effect of the financial surplus accumulated by OPEC, therefore, has been a reduction in aggregate demand in the major industrial nations. There has been a twofold impact on aggregate demand in industrial countries: the direct impact outlined above, and an indirect impact from the drop in its exports to other industrialized and developing countries whose economies were being affected similarly by the oil price increases. 13

There are basically two possible strategies when faced with a substantial price increase. One is to create a recession and thus reduce aggregate demand. This would cause import demand for commodities to fall, including demand for those commodities whose prices increased. Clearly, a recession would reduce oil imports because the decline in industrial output would bring about a corresponding decline in the demand for oil and material inputs. Even from the consumer standpoint, a sufficiently large recession might make a dent in oil and gasoline consumption. 14

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13 Griffin James M. "OPEC Behavior and World Oil Prices" George Allen and Unwin, Boston, Sydney, 1982.
14 Rudiger Dornbusch and Stanley Fisher "Macro-Economics" Mcgraw-Hill book company, 1978.

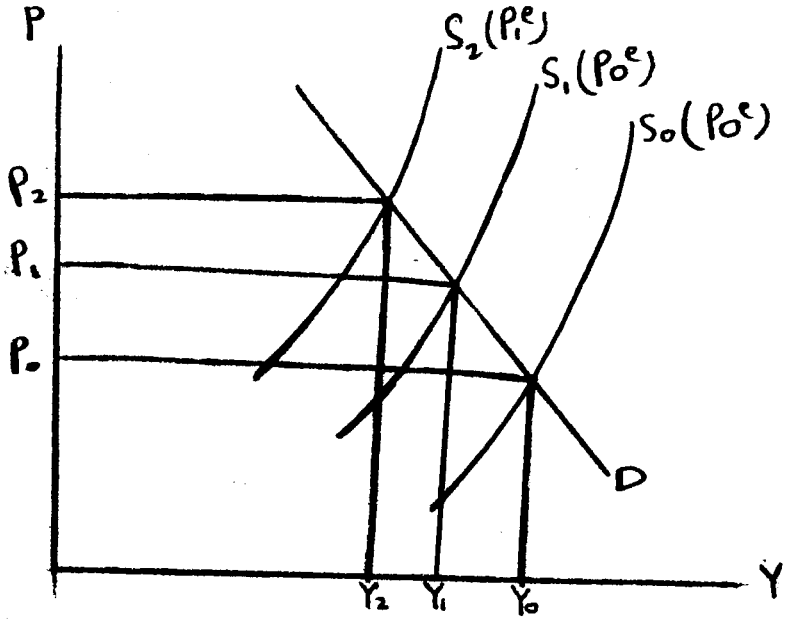
The other short-run strategy is to maintain aggregate demand in the face of the balance of trade deterioration. There might be an attempt to reduce oil imports by a variety of measures, including speed limits on highway and home heating regulations. 15 There is no attempt, however, to reduce other imports significantly by broad macroeconomic measures. The clear implication of such a strategy may well be a current account deficit if the import price increase is not offset by a significant reduction in imports.

Most oil importing countries faced the choice between these two strategies. They had to decide whether to accommodate the oil price increase by a policy that maintained aggregate demand or internal balance, or to institute a policy that maintained external balance by a reduction in imports through a domestic recession.

Price increases and shortages of oil brought on the recessions of 1974-1975 and 1979-1980. Generally speaking, the Iranian oil cut-off in 1979, combined with further price increases reduced aggregate supply and hurt the economies of the oil importing countries. Oil is so important to an economy that even small changes in its cost or availability have big effects on aggregate supply. 16 The Keynesian economists believe that increases in the world price of raw material inputs to the production process, primarily energy

15 Rudiger Dornbusch and Stanley Fischer, "Macro-Economics", McGraw-Hill Inc., 1978.
16 Richard T, Froyer "Macro-economics Theory and Policy" McMillan Publishing Co. Inc. 1983.

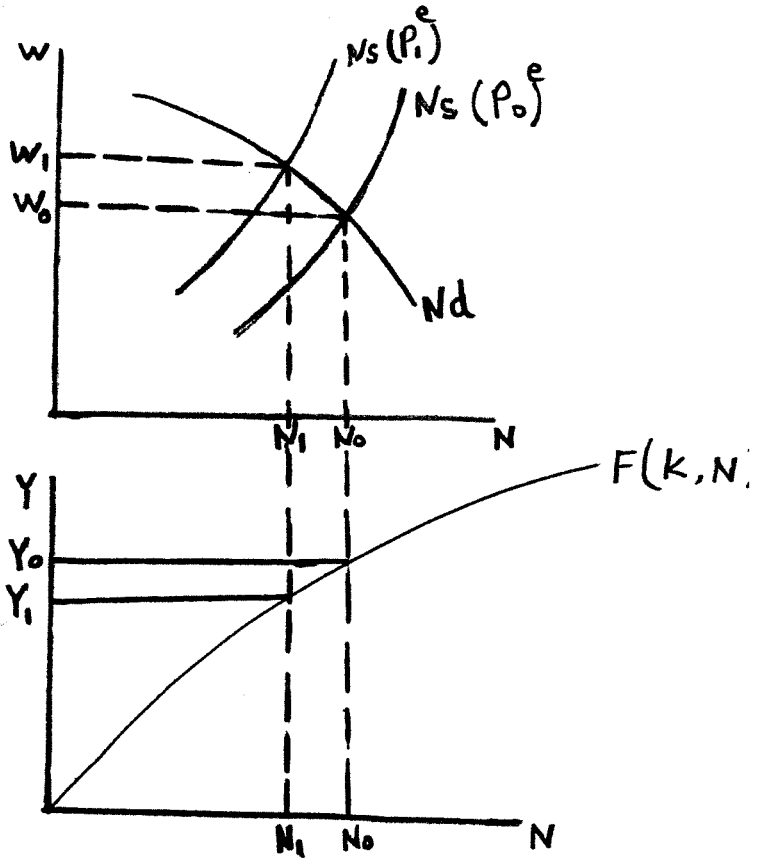
inputs, have caused large increases in production costs for the given level of ouput and have resulted in significant shifts to the left in the aggregate supply schedule, increasing the domestic aggregate price level and reducing real GNP. The Keynesian view of the effect of such supply shock can be represented graphically as follows: 17



The initial increase in oil prices and the resulting increase in the price of other energy sources (coal, natural gas, etc.) which would come as a result of the attempt of energy users to substitute other fuels for the highter-priced oil, would cause a shift in the aggregate supply schedule from ($S_0 P_0^e$) to ($S_1 P_0^e$) for a given expected price level. Output would decline from Y_0 to Y_1 and price would rise from P_0 to P_1. This would be the direct effect of the supply shock; such supply shocks also have indirect effects which come through an effect on labor supply. Labor suppli-

17 Richard T. Froyer, Op, Cit.

ers would in time perceive the increase in price and the expected price level would rise from (P_0^e) to (P_1^e). There would be a further shift to the left in aggregate supply schedule, from ($S_1 P_0^e$) to ($S_2 P_1^e$). Price would further increase to P_2 and output would decline to Y_2 due to changes in price expectations.



An increase in the expected price level shifts the labor supply schedule to the left from $N^s(P_0^e)$ to $N^s(P_1^e)$ in Panel A. At a given price level, P_0, employment declines from N_0 to N_1 and output falls from Y_0 to Y_1 (Panel B). This decline in output for a given price level is reflected in a shift to the left in the aggregate supply function from

$S(P_0^e)$ to $S(P_1^e)$. 18

Aggregate Supply Schedule

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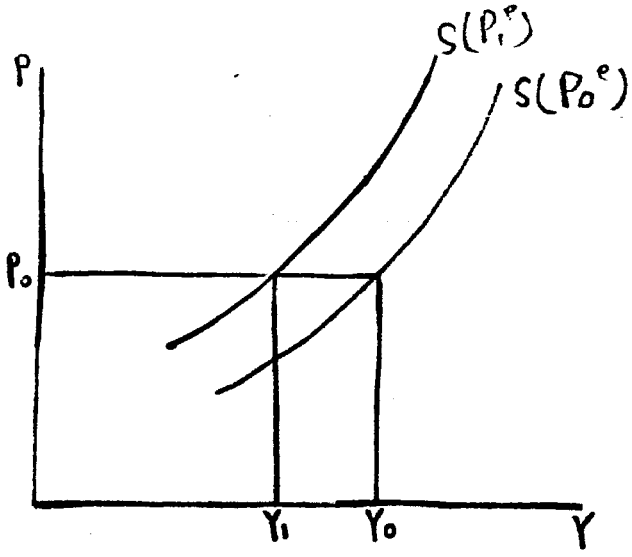

In fact, however, the magnitude of the initial depressing influence of the high OPEC oil prices on aggregate demand in each major industrial country depended on a number of factors:

* The additional cost of imported oil: the size of the impact depends on the relative importance of imported oil in each nation's economy as well as on the size of the price increase.

* The increase in exports from OECD countries to the OPEC members because of the improvement in the financial position of the OPEC members: the more the increased costs of imported oil are offset in the form of additional exports to the OPEC members, the less higher oil prices depress aggregate demand in the oil-importing countries. 19

* The actual changes in the trade of the OECD countries with each other induced by the internal effects of the higher oil prices in reducing gross national product (GNP).

18 Richard T. Froyen, "Macro-economics, Theory and Policy", Macmillan Publishing Co., Inc., 1983.
19 Rybczynski, T.M. Op, Cit, chapter 3.

Table 1 shows this in part.

Table 1

Gross National Product

Average Annual Growth
(Percent)

	1965-73	1973-80	1981	1982	1984
Industrial Countries	3.7	2.1	0.7	-1.0	4.3

Source: World Bank, World Development Report, 1985

Finally, these initial demand-depressing effects were aggravated by the internal and external reaction of industrial countries. An initial reduction in purchases by consumers, who are diverting more of their incomes to paying for energy, leads to layoffs in the consumer-goods industries.

In turn, the reduced incomes of those laid off or of those working shorter hours cause further declines in production and sales of consumer goods. Manufacturers curtail their investments in inventory and, ultimately, their investment in plants and equipment. As the income of a nation is reduced, that nation tends to import less, thereby reducing the export sales and the GNP of its principal suppliers. For instance, the United States at the end of 1973, with an economy already heading toward recession, was struck by the Arab oil embargo and the oil price increase. Real GNP growth became sharply negative in the first two quarters

of 1974 and moderated little in the third quarter of 1974. Growth decreased in the last quarter of 1974 and the first quarter of 1975, with a negative growth rate for these quarters of, respectively, (-7.5) percent and (-9.2) percent. The effect of the second oil shock (1979-80) on U.S. Real GNP growth also was a negative growth rate at (-0.3) percent for 1980. The recovery began in 1981, with real GNP growth of (2.5) percent. 20

According to conventional economic theory, unemployment rates increase when aggregate demand falls. Jobless numbers grow even faster if sticky wages and prices accompany falling aggregate demand. Unemployment in major industrial countries was also caused when energy prices rose and available supplies shrank during the oil embargo of 1973-1974 and the Iranian oil cut-off of 1979. Aggregate supply fell, due to higher production costs and shortages in the oil supplies. Firms raised prices due to higher oil prices (input). Production orders fell. Real GNP went down and unemployment went up (the unemployment rate is shown in Table 2). Unemployement rates in OCED countries increased abruptly, from 3.2 percent in 1974 to a higher level in 1975 (5.5 percent).

The same thing happened after the second oil shock. In part of high oil prices effects, the unemployment rate increased, from 5.1 percent in 1979 to 6.0 percent level in 1980.

20 World Economic Outlook, April 1985.

Table 2

Unemployment Rate
(percent)

	1974	1975	1976	1977	1978	1979	1980
OECD Countries	3.2	5.5	5.0	5.3	5.2	5.1	6.0

Source: OECD, Economic Outlook (various issues)

Falling aggregate supply reduces Real GNP and creates unemployment, but this is not the only problem. Price levels rise due to cost-push forces, then falling aggregate supply results in both unemployment and inflation, as described in previous pages.

Observe that this contradicts standard Phillips curve analysis. This analysis implies that, in the presence of a stable OPEC price, the usual inflation-unemployment trade-off pertains.

Inflation has been the fundamental economic problem besetting the world for several years. Inflation existed in the industrial countries before the first oil shock in 1973-1974.

Table 3 shows that the inflation rate in all major countries in 1962-1972 was 4.1%; it increased to a higher level of 7.4% in 1973, and 11.9% in 1974, then moved down to 7.3% in 1976. During the second oil shock in 1979-1980, inflation rates increased abruptly to a higher level (8.0% and

9.2%, respectively). 21

Table 3

Rate of Inflation
(Percent)

	Annual Average 1962-1972	1973	1979	1980	1981	1982
Industrial Countries	4.1	7.4	8.0	9.2	8.7	7.2

Source: OECD, Economic Outlook (various issues)

The effect on the trade account:

The effect of higher oil prices on aggregate demand took into account the interactions among the industrial countries. These interactions operate chiefly through the trade account, as changes in prices and imcome in one country affect the exports and imports of another country. The changes in total import demand induced by changes in income the United States and Japan, for example, are then allocated to Western Europe. In addition, increased exports to OPEC and lower exports to non-oil-exporting developing countries are added, to obtain the total change in Western European trade accounts attributable to the oil price increase which occurred at the end of 1973 and 1979. For most industrial countries the oil price increase implied a deterioration in their term of trade (the ratio of their export to import price), a reduction in their standard of living, and a trade

21 IMF, International Monetary Fund Survey, April 1985.

deficit. 22

There are basically two possible ways to deal with a deficit problem: as noted earlier, one is to create a recession and thus reduce aggregate demand, and therefore import demand, for all commodities, including oil. A recession clearly would reduce oil imports because the decreases in industrial output would result in a corresponding decrease in the demand for oil and material inputs. Table 4 shows the current account balances of industrial countries, as well as the current account of OPEC. The striking fact is the enormous increase in the surplus of OPEC members in 1974-1975 and again in 1979-1980. This was matched by a deficit in the industrial countries in 1974 (as compared with the surplus of 1973 and to huge deficit in 1980 after the second oil shock.)

Table 4

Total Current Account Balance
(Billions of U.S. Dollars)

	1973	1974	1975	1979	1980	1981	Total 1973-1981
Industrial Countries	19.3	-12.4	17.1	-10.7	-44.0	-29.5	-60.0
OPEC	6.6	67.8	35.0	68.4	111.2	96.0	385.0

Source: IMF: International Financial Statistics, June, 1982.

22 Rybczynski, T.M. "The Economics of the Oil Crisis", Trade Policy Research Center, London, 1976.

The increase in the price of oil brings about changes in the prices of other commodities imported into industrial countries and in the prices of commodities that compete with the exports of industrial countries. In addition, an oil price increase changes the level of activity and associated conditions of import demand in the markets to which industrial countries export.

Besides these effects, the oil price increase has its influence on financial variables, such as interest rates in the United States and other European countries (see Table 5), OPEC investments in the United States and Western European countries, and financial aid to non-oil-exporting countries.

Table 5

Interest Rate in Selected Industrial Countries
(% per Annum)

	1977	1978	1979	1980	1981
U.S.	5.3	7.2	10.1	11.4	14.2
France	9.2	8.2	9.5	12.2	15.3
Italy	14.9	11.1	13.5	15.9	19.6
U.K.	8.2	9.2	13.7	16.6	13.9

Source: World Bank, World Development Report

The major impact of the higher oil prices on aggregate demand was positive in some cases, as producers of energy (especially OPEC members) began to spend a steadily rising

proportion of their huge oil revenues on purchases of goods and services (OPEC oil revenue increased from 14.4 billion dolllars in 1972 to 93.3 billion dollars in 1975 23). This appeared in growing exports from industrial countries to the oil-exporting countries. Table 6 shows that the rise in exports was quite sharp in the period from 1972-1973 to 1984.

Table 6

Major OECD Countries Exports to OPEC
(Billions of U.S. Dollars)

Country	1972-73	1984
United States	3.2	14.4
Japan	2.3	15.8
Germany	1.9	9.8
France	1.5	9.1
U.K.	1.6	6.7
Canada	0.3	1.5
Total	11.8	57.3

Source: OECD, Economic Outlook, December, 1985

However, the rise in the exports of industrial countries' to OPEC members did not offset the level of event the amount of imports for six major industrial countries from OPEC in 1984 (See Table 7). The total amount of OECD countries exports to OPEC countries amounted to $83.2 billion in 1984,

23 Petroleum Economist, May, 1977, Table II, p. 167.

while the total amount for six major industrial countries imports from OPEC was $95.4 billion.

Table 7

Major OECD Countries Imports from OPEC Members
(Billions of U.S. Dollars)

Country	1973	1984
U.S.	3.5	25.7
France	3.7	11.6
Japan	7.1	43.7
Germany	3.8	9.5
U.K.	3.5	3.3
Canada	.9	1.6
Total	22.5	95.4

Source: IMF, Yearbook, Direction of Trade Statics, 1985, and IMF, Monthly, Direction of Trade, December 1985

In addition to exports of goods, attention should be given to trade in services. The services that will clearly be affected by the increased oil prices are insurance, banking and other professional and consulting services; transportation services, and technical services of many kinds, such as training of personnel. Industrial countries have gained from consulting services that accompany the variety of exports transferred to OPEC. All industrial countries participated heavily in the growing export of technical services to OPEC members. These services benefitted the trade

balance of industrial countries with OPEC members. 24. See Table 8.

Table 8

Current Account Balances: Services and Transfers
(Billions of U.S. Dollars)

	1973	1975	1977	1979	1980	1981	1982	1984
OPEC	-12.2	-18.0	-30.5	-49.0	-61.0	-74.0	-83.0	-68.0

Source: IMF, Economic Outlook,1983
OECD, Economic Outlook, December 1985

The members of OPEC demanded payment for their oil in dollars and invested their financial surplus in dollars or in other OECD currencies which means that exchange rate changes occur only between OCED currencies and affect the exchange rates of these currencies against the dollar. 25 . If the dollar appreciates against the yen, for example, Japanese buyers find oil prices rising even if the dollar price of oil does not change. Higher oil payments reduce aggregate demand and boost production costs, cutting Japanese aggregate supply. Stagflation follows this shift of aggregate demand and aggregate supply and will lead to higher prices and lower employments in industrial countries.

24 Rybczynski, Op, Cit, 1976.
25 Robert Dunn: Exchange Rates, Payment Adjustment and OPEC: Why Oil Dedficits Persist, Essays in International Finance, No., 137, Princeton 1979, p.12.

The first oil shock occurred shortly after the flexible exchange rate system began operating. The advantage of a flexible exchange rate system is its role in insulating an economy from certain foreign shocks 26, this means oil price increases must be adjusted for changes in the exchange rates vis-a-vis the dollar. The devaluation of the U.S. dollar in terms of the yen and other European currencies during the 1970's had a great effect on OPEC purchasing power. For instance, up to 1979, West Germany and Japan benefitted from the relative dollar devaluation in paying their oil import bills (see Table 9).

Table 9

Nominal Exchange Rate in Terms of one U.S. Dollar

Year	German Mark	Japanese Yen
1973	2.703	280.00
1975	2.622	305.15
1977	2.105	240.00
1979	1.833	219.14
1981	2.260	220.54
1983	2.553	237.48
1985	3.171	254.23

Source: IMF: International Financial Statics (various issues)

26 Richard T. Froyen, Op, Cit, 1983.

The rise in oil prices contributed to rising investment in domestic energy industries in the United States and Western Europe. Except for the large discoveries of oil and gas in Alaska and the North Sea and of gas in the Netherlands, exploitation of domestic fossil fuels (oil, gas, and coal) in the United States and Western Europe had been declining for some time before the first oil shock in 1973. With the world price of oil falling in real terms, the cost of expanding production of oil, gas, and coal in the United States and coal in Western Europe exceeded the cost of meeting growing energy requirements through oil imports. But with the high oil prices, it became profitable to invest in the production of domestic sources of energy.

Since the development and production of fossil fuels is highly capital-intensive, a continued rise in world oil prices should result in a significant increase of investment in the exploitation of fuel resources. Investment expenditure for oil and gas development and coal mining during the period in fact did increase. This is particularly true in the United States, where the most important new source of oil lies in Alaska and on the continental shelf 27. Table 10 shows the rise in consumption of electricity, gas and coal during the period of the oil price shocks.

27 Howe W. Charles, "Natural Resource Economics", John Wiley and sons, New York, 1979.

Table 10

OECD Primary Energy Consumption
(in Millions of Barrels a Day)

	1960	1973	1980	% Change 1960-1973	% Change 1973-1980
Oil	15.0	39.2	37.3	7.7	-0.7
Coal	13.5	14.5	16.2	0.5	1.7
Gas	6.3	14.0	14.7	6.3	0.8
Hydro	3.0	4.4	5.1	3.0	2.1
Nuclear	0.0	0.9	2.0	35.4	17.8
Total	37.8	73.0	76.2	5.2	0.6

Source: International Energy Agency, World Energy Oulook,1982.

Replacement and expansion of electric utility plants account for more than half of investment in the energy sector. Some substitution in consumption of electricity and other energy sources for direct use in heating has been occurring as a result of the higher oil prices.

Part 3

THE EFFECT OF OIL PRICE SHOCKS ON THE DEVELOPING COUNTRIES

An assessment of the consequences of the higher price of oil on the developing countries, cannot be made independently from a similar assessment of the other regions of the world. The opportunities of the developing countries to take action are limited by their position in the world economy. Developing countries' exports depend on markets in industrial countries where their products compete with those from the industrial countries, and they cannot exert a sinificant influence on the prices of their imports. Capital inflows finance a substantial part of their imports and investment, and they have limited access to international capital markets. The direct impact of the higher oil prices in raising import costs, therefore, represents only part of the consequences; recessions in the industrial countries reduce the developing countries' exports and foreign-exchange earnings, and, hence, their capacity to import and to support domestic investment if there are no compensating additional inflows of capital. Even when more foreign capital can be secured, the cost of servicing it is an addition-

al burden on the balance of payments and on the resources that can be mobilized for investment in the future.

The short run impact of higher oil prices on the developing countries thus differs markedly from the consequences facing industrial countries. Although aggregate demand is affected, as it is in the industrial countries, the adverse consequences for the developing countries derive principally from the direct and indirect impact of higher oil prices on their balance of payments. The chronic difficulty for the developing countries in mobilizing scarce foreign-exchange resources to finance imports for development is aggravated directly by the higher cost of the oil that they import and indirectly by the effect of higher oil prices in reducing economic growth and causing pressure on capital markets in industrial countries; this, in turn, weakens demand for the exports of developing countries.

There are a number of variables of crucial importance to the developing countries. One such variable is the rate of inflation in the world economy, since it affects the relative prices of the commodities produced in the developing countries for international trade. (See Table 3, page 15).

The magnitude of increased oil prices depends on the level of development of each country, the degree to which it relies on imported oil for meeting its energy requirments, and the degree to which it participates in international trade. 28

28 Rybczyski, T.M. "The Economics of the Oil Crisis", Trade

Developing countries have remarkably little impact on the world oil market (excluding OPEC countries). The total net imports of all these countries in 1980 was 4.5 million barrels per day. 29 In terms of world oil consumption, these countries are modest players in the world market. But it is the impact of expensive energy on their domestic economies that represents the real concern in the early 1980's.

The differences among the almost 90 developing countries are great. Yet we can clarify the problems and distinctions among them by dividing them into three groups: 30

1) The first group consits of marginal oil and/or gas producing countries which have the potential either for limited net exports of energy, for domestic self-sufficiency, or even for domestic energy deficits, depending largely on policies followed at home. Egypt and Peru are example of this group. But the political and social conditions facing policy-makers in the developing countries make planning for energy use and demand management use difficult. The pressures of increased urbanization, the growth in the industrial sector in these countries will place large demands on domestic oil and gas resources.

Policy Research Center, 1976.
29 International Energy Agency, World Energy Outlook, Paris, 1982.
30 Zuvekas Clarence J. "Economic Development, An Introduction" St. Martin's press, New york, 1979.

2) The second group includes countries with partly industrialized economies and a high level of dependence on imported petroleum supplies. The cost of the imported energy required to serve the industrial sector has led, in some cases, to a continued and growing need to borrow both private and public international capital to meet the growing oil import bills. Turkey and Brazil are countries typical of this group.

3) A third group of countries faces a double energy crisis. On the one hand, increasingly expensive oil import requirements have resulted in severe balance of payment problems. On the other hand, non-commercial or traditional sources of energy, including firewood and animal and plant wastes, still constitute a large share of energy supply. Many of these countries are also primary commodity exporters. Jamaica and Kenya are two such countries.

The impact of high oil prices for developing countries was generally large. The cost of their net oil imports has risen tenfold in terms of constant dollar in the past decade. The 1979-1980 oil price increases left these countries with a net final import bill of $74 billion, or 5.3% of GNP, compared with 2.8% in 1978. It has become increasingly difficult for developing countries to finance the higher cost of oil imports, and their deficit on the current account has

risen sharply, from $35.5 billion in 1978 to $77.5 billion in 1980, $91.0 billion in 1981, and $35.3 billion in 1985. 31

Energy consumption appears to rise over the scale of development levels at a rate faster than that of economic growth 32 and oil consumption, at least when the price of oil is comparatively low. The much higher levels of oil consumption at more advanced levels of development constitute, in most cases, a claim on foreign-exchange resources, since most of the oil used in the countries must be imported. This does not necessarily imply, however, that oil imports constitute a heavier burden on developing countries at the upper level of the development scale, because participation in international trade also increases with higher develpment levels (higher income levels).

Developing countries imported an estimated 192 million tons in 1973, or 13 percent of world oil trade. In 1973 prices the cost of these imports was about $4.2 billion. In 1974 prices, however, the cost of the same volume was about $15.2 billion, or an increase of $11 billion in one year. Imports of goods in 1973 by these developing countries that, import oil, are estimated at about $82 billion; thus, the higher price of oil alone increased the cost of imports in 1974 by about 13 percent over those of 1973. 33

31 IMF: International Monetary Fund Survey, Op, Cit, 1985.
32 World Energy Outlook, 1982.
33 UN, Energy Statistic, 1974.

Prices of other primary commodities exported from developing countries to industrial countries are affected due to demand and supply differences and sensitivity to international inflation. In the long run, prices of primary products are seen to return to the same level, as in the seventies in terms of purchasing power. Table 11 gives details of the price index for wholesale price. These prices dropped for all commodities and this reflects demand that dropped due to recession in the industrial countries during the two oil shocks.

Table 11

Wholesale Price Indexes

Selected Commodities

1980 = 100

Commodity	1973	1978	1980	1981	1983	1985
Food (total)	57.9	65.3	100.0	86.4	74.6	74.9
Rice	80.0	80.4	100.0	114.0	76.3	77.1
Beverages (total)	38.9	107.6	100.0	77.7	85.7	88.3
Coffee	41.2	102.8	100.0	76.8	84.9	88.6
Metals (total)	57.6	69.6	100.0	83.4	78.0	69.7
Copper	81.5	62.3	100.0	79.8	72.9	64.9
Bauxite	28.6	65.2	100.0	101.8	84.5	77.3

Source: IMF, International Financial Statistics, (various issues)

Higher oil prices cannot ve seen as the main cause of the recession in the industrial countries. The explanations for current low commodity prices would include the level of interest rates, which are usually associated with changes in the prices of exhaustible resources; a second factor is the cyclical behaviour of commodity prices. Oil prices have been sustained at relatively high levels, even in the face of relatively abundant supply and of slack demand. This is an indication of the relative market power of oil exporters, which derives from the relative inelasticity of the demand for oil. Other commodities mentioned here face a more price-elastic demand. This suggests that other commodities cannot follow the oil pricing policies of the last decade unless there is a drastic change in market organization and in the elasticity of demand. This does not mean that the behaviour of oil-exporting countries lowered the welfare of other commodities exporters. It means that excessive specialization or cartelization in such commodity exports may not be a good idea. Rather than attempting to improve commodity prices, or to reach price agreements or global negotiations, developing countries would be better off to stop depending heavily on such unreliable export revenue. As a result of higher oil prices, a dramatic shift took place in the allocation of resources in the developing countries. The rate of investment in developing countries as a percentage of GDP rose. 34 These high rates of investment were

34 World Development Report, 1985, pp. 125-136.

generally allocated to industrial sectors; however, they did not significantly raise the level of productivity in these economies. There are several reasons why investment level of developing countries did not lead to a proportionate increase in productivity.

1. The investment activity was largely controlled by governments, and thus the efficiency-seeking private entrepreneurial motive was missing. However, much of the investment needed in the developing countries is in a basic infrastructure such as waterways, roads and transportation and energy sources. Such infrastructure is as essential to a producer as is the entrepreneurial spirit, and it requires governmental participation. A road, a waterway, an energy plant are public goods, and economic theory explains that only a public group, such as the government, can attain an efficient allocation of resources in such areas.

2. Investment in basic infrastructure leads to increases in productivity, but with a lag. This relies on the existence of a long period for investment to realize its gains, and seems reasonable given the stage of development of the countries concerned. A good example is Mexico in the last few years of the 70's. Mexico

invested very heavily in the development of its oil sector. Much of its investment went to infrastructure (roads, energy sources) but a large part was in plants and machinery relating to oil. These activities did not have a significant spill-over effect on the rest of the economy, in part because oil is not a labor-intensive product and therefore does not enchance employment level, and in part because oil revenues are spent largely on internationally purchased goods rather than on national output. Oil export revenues were also very largely associated with increases in imports. Finally, about 10% of the Mexican GDP in the mid 1970's was related to the agricultural sector, and about 40% of its population is rural. 35 This rural sector has benefited less from the increase in oil exports in the late 1970's. Oil revenues led to relatively more demand for industrial goods,so that the prices of agricultural products and the demand for agricultural labor dropped. The incomes of agricultural workers dropped. Agricultural ouput per head fell slightly over the period in Mexico, and rose slightly in Venezuela. In both cases, the terms of trade between agriculture and industry moved against agriculture, and agricultural imports rose very sharply. In Mexico the return on investment in the private sector showed an average

35 Richard L.J. Lacroix, "Integrated Rural Development in Latin America", World Bank Staff Working Papers, Number 716, 1985.

annual change of (-0.6) over the period 1976-1983. 36

The stagnation of agricultural productivity is most certainly an economic and political weakness for developing countries. Inadequate agricultural productivity drags the whole economy down by requiring expensive imports and by keeping a large segment of the population undernourished.

To assess the full effect of price changes on the trade position of the developing countries, the additional cost of oil imports should be combined with estimates of the costs of increases in the prices of other imports. The additional cost of oil for developing countries is larger than the total cost of the food that they import. Rising prices of food did, however, have their effect earlier; in 1973 the cost of imported food had risen some $5.2 billion above the level of the preceding year. In 1981 the cost of imported food ahd reached $66.2 billion dollars (see Table 12).

Table 12

Develping Countries: Value of Imported Food
(billions of U.S. Dollars)

	1972	1973	1975	1977	1981	1983
Food Imports	10.1	15.3	29.1	32.2	66.2	57.4

Source: UN, Yearbook of International Commodity Statistics, 1985.

The fact that the amount of final food imports was steadily increasing over the period 1972 to 1983 implies that the higher oil imports came on top of already heavy financial

36 World Development Report, 1985.

outlays for food imports.

In general, the cost, to developing countries, of imports from industrial countries increased. For instance, the total value of the developing countries imports' from industrial countries was $41.4 billion in 1970; in 1975 the total value of imports increased to $138.0 billion and reached $291.2 billion in 1982. 37

In overall terms, there was a rising balance of payments deficit in developing countries. Table 13 gives details of the balance of payment as a percentage of GNP for developing countries; in 1970 the deficit totaled 2.5% of GNP's developing countries. By 1975 the deficit increased to 4.3% of GNP's of developing countries, and after the second oil shock the deficit reached to 5.1% of GNP's of developing countries in 1981.

Table 13

Developing Countries
Current Account Balane as Percentage of GNP

	1970	1975	1979	1980	1981	1982	1984
Developing Countries	-2.5	-4.3	-3.4	-4.6	-5.1	-4.2	-2.1

Source: World Development Report (various issues)

Developing countries considered various possibilities for energy substitution or conservation of energy. Investment programs in the developing countries need to be adjusted so

37 UN, Handbook of International Development and Trade Statistics, Op, Cit, 1985.

that they can accommodate substantial new programs and projects for the future production of domestic energy. Such investments tend to be highly capital-intensive, to require substantial imports of machinery and equipment, and to need a long time to show results. 38

Non-Oil-Developing (NOD) Countries

The middle and higher income developing countries that have diversified exports are vulnerable to fluctuation of growth in the industrial countries. Prices of their exports are not affected so strongly as are those of the lower income countries. For the lower income countries, however, the principle effect of higher oil prices and the OECD recession is a major deterioration of their terms of trade. Table 14 gives details about current account balance of NOD countries; this shows that the deficit was $9.5 billion dollars in 1970. After the first oil shock the deficit increased sharply to $34.0 billion dollars in 1975. There was some reduction in the deficit in 1977 as real oil prices stabilized and the world economy recovered somewhat from the world economic recession of 1974-1975. These deficits rose sharply after the second oil shock in 1979-1980.

38 World Energy Outlook, 1982.

Table 14

NOD Current Account Balance as a Percentage of GNP

Year	1970	1973	1975	1977	1979	1981	1983	1984
NOD	-2.5	-1.1	-4.3	-2.1	-3.4	-5.1	-3.1	-2.1

Source: World Bank, World Development Report, 1985.

These deficits averaged (-2.5) percent of their GNP in 1970. The effect of increased cost of oil imports were at a high of (-4.3) percent deficit of their GNP in 1975. The years between 1979 and 1980 saw a second series of major shocks for NOD countries. Oil prices rose sharply in 1979-1980. Real interest rates increased dramatically in 1980-1981 39, reaching historically high levels. In 1973-1980, the average GNP growth rate of NOD countries was 3.1 percent. In 1982, the average GNP growth rate fell to 2.8 percent. 39 At the same time, there was greatly expanded borrowing, together with official capital flows for NOD countries from IMF and OECD countries.

The impact of high oil prices in raising import costs of NOD countries represents only part of the consequences of increased oil prices; recession in the industrial countries reduce their exports and foreign-exchange earning, and, hence their capacity to import and to support domestic investment. Table 15 gives details about raising import costs of NOD countries. The NOD countries' imports (includ-

39 World Development Report, 1985.

ing oil) increased from OPEC countries the increased cost of imported oil was hard for NOD countires'.

Table 15

NOD Countries' Imports from OPEC
(in Percent)

Selected Countries

	1970	1975	1980	1983	1984
Bangladesh	n/a	3.1	5.5	n/a	n/a
Brazil	9.4	23.1	n/a	n/a	39.6
Chile	3.1	19.0	n/a	10.6	n/a
Kenya	9.1	24.1	n/a	27.9	n/a
Pakistan	3.5	19.1	n/a	n/a	28.2
Panama	17.9	39.4	n/a	n/a	16.5
Uruguay	12.5	24.2	n/a	n/a	27.2

Source: UN, Handbook of International Trade and Development Statistics, 1985 Supplement.

For the NOD countries as a whole, the cost of oil imports is expected to decrease after the recent decreases in oil prices. In general, the NOD countries suffered major economic distress because of higher oil prices. For instance, apart form the higher oil prices, the NOD countries ended up paying about $5 billion extra as a result of increased prices for fertilizer and wheat; the price rise for wheat, fertilizer and oil, all taken together, meant an extra cost of $15 billion for the NOD countries in 1974 alone. 40

40 Janes P. Grant "Oil up, Food up, Fertilizer up _ Price Shock for the Third World", Economic Impact, No.7,

In 1982 the amount of oil which NOD countries consumed was 8.5 million barrels per day. If this amount is measured by the oil prices of 1975, the value is $34.3 billion. If we measure it by the oil prices of 1982, the value is $102.2 billion and using prices of October, 1985 the value is $83.6 billion. The annual average growth rates (in percent) for the export of fuels from OPEC countries was 28.4%. 41 So, the increasing cost of oil, and continued increases in the cost of major commodities imported from industrial countries all combine to produce a severe effect on the trade postion of NOD countries, on their foreign exchange reserves and, consequently, on their balance of payments.

The NOD countries were in fact affected more seriously by burdens on their foreign-exchange resources. Their exports, and hence their capacity to finance imports, are small in relation to their national product. Tables 16 and 17 give details of selected low income countries' debt and debt service position.

1973-1974, p.6.
41 United Nations, Handbook of International Trade and Development Statistics, Op, Cit, 1985.

Table 16

External Debt
(billions of U.S. dollars)

	1974	1976	1978	1980	1982	1983
Africa						
Low income countries Total:	7.4	10.6	16.0	22.2	26.2	27.1
Asia						
Low income countries Total:	18.1	22.4	27.9	33.0	37.4	39.9
Western Hemisphere						
Latin America Caribbean Total:	57.3	82.4	127.0	171.3	234.3	282.2

Source: World Bank, World Debt/External Debt of Developing Countries, 1984-1985.

Table 17

Debt Service
(billions of U.S. dollars)

	1974	1976	1978	1980	1982	1983
Africa						
Low income countries Total:	.470	.512	.779	1.3	1.3	1.4
Asia						
Low income countries Total:	1.1	1.3	1.5	1.9	2.1	2.6
Western Hemisphere						
Latin America Caribbean Total:	5.5	8.1	18.4	27.0	32.1	28.2

Source: World Bank, World Debt/External Debt of Developing Countries, 1984-1985.

The external debt was accumulated mainly after the first oil price shock of late 1973. A further huge borrowing followed the second oil shock of 1979-1980. All developing countries, especially the NOD countries, were hit hard by the quadrupling of oil prices in 1973. They were faced with a sudden deterioration in their terms of trade, which translated first into a deterioration in their terms of trade, which translated first into a deterioration in the balance of payments on current account insofar as the ensuing deficit. NOD countries' deficit could not be financed by attracting voluntary investments, the result was a sharp drop in the level of domestic consumption and investment.

The rapid growth of borrowing combined with big increases in interest rates contributed to the deterioration the main debt indicators. For all NOD countries, the ratio of debt service to exports rose, and the debt to GNP ratio increased significantly for all groups, the rise was sharp for low income Africa 18 percent in 1970 to 55 percent in 1984. 42

NOD countries' energy consumption was low compared with the world oil consumption. Table 18 shows the oil consumption in some African countries. Africa's sahre in world energy consumption was 6 percent in 1977, but if we restrict ourselves to ists share of world oil consumption it was 1.5 percent in 1977. 43

42 World Bank, World Development Report, 1985.
43 OPEC Review, June 1979.

Table 18

Africa: Oil Consumption
Selected Countries, 1977
(Thousands of Tons)

Country	1977	Country	1977	Country	1977	Country	1977
Gabon	1,215	Sudan	810	Uganda	290	Chad	70
Malawi	1,200	Ethiopia	340	Togo	147	Benin	80
Upper Volta	97	Niger	106	Zambia	665		
Tanzania	625	Senegal	716	Kenya	1,220		

Source: OPEC Review, June, 1979.

The central fact about the oil price increases is that they have caused a large and sudden international redistribution of income. The most critical problem has been the loss of real income sustained by those countries least able to afford such a loss. These are, of course, the developing countries, and more specifically, the poorest among them. This loss in real income is particularly critical to their prospects because it takes the form of a balance of payment deterioration, inasmuch as economic growth is constrained by the availability of foreign exchange. These effects are likely to prevent any significant growth in the per capita income of the 800 million people in the poorest of the developing countries; 44 these situations may be changed after the decline in oil prices.

44 IMRD, Annual Report, 1974, p.5.

Part 4

THE EFFECT OF HIGH OIL PRICES ON OPEC

The one most widely accepted idea is that OPEC effectively cartelized the world oil market, exploiting its power to raise prices above competitive levels 45 by restricting production.

The world was shocked in 1973 by the OPEC oil embargo and a very sudden increase in oil prices by OPEC. This was followed in 1979 by an additional increase in oil prices. This was because OPEC represented the sources of supply with sufficient reserves and production capacity to meet the surging demands of the industrial countries and developing countries.

The main factors leading up to the 1973 crisis were the tremendous growth in world energy demand, the rising share supplied by petroleum, and the increasing share of imports from Gulf States. In the U.S., additional factors were the environmental constraints on the use of coal and lags in the completion of nuclear plants. World demand for energy had been increasing rapidly. (see Table 10, page 23) This table

45 Dermot Gately, "a Ten-Year Retrospective: IOEC and the World Oil Market", Journal of Economic Literature, Vol. XXII, September 1984, pp.1100-1114.

shows that the rates of growth are much higher between 1960 and 1973.

In the early 1970's, there was a simultaneous economic boom in Western Europe, Japan, and North America. By 1973, real GNP growth rates were 5.4 percent for Western Europe, 10.4 percent for Japan, and 5.9 percent for the U.S. 46 The sharp increase in the relative importance of petroleum and natural gas that was observed in the United States also held for world patterns of energy use, as shown in Table 10. The United States was less vulnerable to an oil embargo than either Western Europe or Japan, since oil imports accounted for only 14 percent of U.S. energy consumption in 1974, while for Japan it was 73 percent and for Western Europe 59 percent. 47 U.S. demand for oil had been surging, the growth being covered totally by imports from Gulf States. These trends were well established before 1973.

The steep rise in price that OPEC was able to dictate depended also on the inelasticity of the demand curve for oil during the two oil shocks and up to 1983. The short run elasticity of demand for energy is generally low because most energy is used as an intermediate input to production and consumption processes. These processes use capital equipment (heat driven chemical processes, petroleum refineries, etc.), which can be adapted or replaced only slowly, over time, in response to changing energy prices. 48

46 OECD, Economic Outlook, 1975.
47 World energy Outlook, 1976.
48 Charles W. Howe, "Natural Resource Economics", John

The share of OPEC in the world oil market is reasonably high. By 1980, member countries produced 44.1% of the world oil, and 40.0% in 1981 and 33.6% in 1984 (see Table 19).

Table 19

World Crude Oil Production
(in Millions of Barrels a Day)
(excluding Communist Countries)

Countries	1973	1977	1978	1979	1980	1981	1982	1983	1984
OPEC Countries	31.1	31.7	30.6	31.5	27.8	23.8	19.8	18.5	19.5
Other Developing Countries	2.8	4.6	5.3	5.8	6.4	6.7	7.3	7.5	7.7
Industrial Countries	13.8	13.3	14.1	14.7	14.8	14.8	15.2	15.6	15.9
Other Countries	9.1	11.4	11.9	12.2	12.5	12.5	12.6	12.7	12.7
TOTAL	58.3	62.5	63.4	65.7	63.0	59.5	56.8	56.4	58.1
% OPEC to World	53.3	50.7	48.3	47.9	44.1	40.0	34.9	32.8	33.6

Source: World Economic Outlook, A survey by the Staff of the International Monetary Fund, 1984, p. 130.

The difficulties that OPEC has faced in the last few years to maintain production within the limits of the quotas of allocated to its members are directly related to capacity utilization in these countries. This point was stressed by Stoffers. 49 Capacity utilization in OPEC has dropped from

Wiley and Sons, 1979.
49 M.J. Stoffers, "A World Oil Price Model, Preliminary Findings", Central Planning Bureau, Occasional Paper, No. 35, September, 1985, Hollland.

97% in 1973 and 96% in 1980 to 74% in 1983 (see Table 20).

It is therefore incorrect to use production as a measure of a country's capacity to export as done in a recent paper by Kohli and Morey. 50

Table 20

OPEC Countries

Capacity Utilization

	1973	1980	1981	1982	1983
Production	31.1	27.8	23.8	19.8	18.5
Capacity Immediately Available	32	29	27	25	25
Capacity Utilization	0.97	0.96	0.88	0.79	0.74

Source: M.J. Stoffers, A World Oil Price Model, Preiminary Findings (in Dutch), Central Planning Bureau, Occasional Papers, No. 35, Sept. 1985.

The Balance of Payments of OPEC Countries

First, let us look briefly at the quantitative importance of the international oil market and developments in the current accounts of the oil-exporting countries.

Table 21 shows that the increase in oil prices between 1973 and 1982 led to concrete energy saving in the oil-importing countries but the associated fall in oil exports was small in comparison with the rise in the cost of the commodity. This is attributable partly to the very low

50 Kohli, Ulrich and Morey, R. Edward, "Oil Characteristics and the U.S. Demand for Foreign Crude by Region of Origin", Mimeo, University of Geneva, 1986. p.7 .

price elasticity of demand for oil at that time 51, and partly to the continued economic growth in many oil-importing countries, which, other things being equal, generates an increase in energy demand. The result was a persistently strong increase in the value of OPEC exports that did not end until 1982. As export earnings increased, so the oil-exporting countries'import demand increased. Their deficit on the services and transfers account also rose. After the second price explosion in 1979-1980, the increase in the value of imports again initially remained far below the increase in the value of exports and, once again, there emerged a substantial current account surplus which disappeared by 1982.

Table 21

OPEC Balance of Payments on Current Account
($ Billion)

	1973	1974	1977	1979	1980	1982	1985
Current Account Balance	6.7	68.3	30.3	61.0	110.0	-18.0	-24.0

Source: DMF, Economic Outlook (various issues)

The current account situation of the various oil-exporting countries is also far from uniform. Several OPEC countries used their export receipts, and in some cases borrowed from foreign banks, to increase their demand for

51 OECD: Economic Outlook, Special Suppplement, No.27, 1980. p. 119.

imports during 1973-1982, and therefore had current accounts broadly in balance or even in deficit. There are other countries, however, that have continued to record large surplus. The first group comprises countries in which oil revenues are relatively low in relation to the size of the population and where the government is also pursuing ambitious developments that are financed out of export receipts. Such 'high absorbers' as Indonesia, Nigeria, Venezuela and Algeria are therefore among the twenty largest debtor countries in the world 52, despite being members of OPEC and despite high earnings from oil exports. By contrast, countries such as Libya, Saudi Arabia or the United Arab Emirates - countries with relative high oil revenues, a small population, in other words 'low absorbers', continue to accumulate persistent balance-of-payments surpluses up to 1982 (see Table 22).

Table 22

OPEC: Low and High Absorbers Balance of Payment
(Billions of U.S. Dollars)

	1980	1981	1982	1983	1984	1985
Low Absorbers:						
Current Balance	81	63	8	-11	-17	-24
High Absorbers:						
Current Balance	22	-15	-26	-9	-1	-3

Source: OECD, Economic Outlook, 1985.

52 Gordon W. Smith and John T. Cuddington, "International Debt and the Developing Countries", World Bank Symposium, 1985.

OPEC's export revenues of the two oil price rises (1973 and 1979) were largely reinvested through OECD banks, in particular the Euro dollar market, and this increased the supply of loanable funds. Oil export revenues therefore provided liquidity to the international banking system during a period in which the OECD countries were in a recession (see Table 23).

Furthermore, during the early 1980's, oil export revenues fell sharply, leading to a drop in deposits with OECD banks from oil-exporters (the last column of Table 23 shows this clearly). In this case, there was a problem on the international financial system; a decrease in loanable funds and simultaneously, musch higher interest rates. Interest rates in most OECD countries remained at historical highs, so that dollar denomination loans are a serious and threatenting burden to the whole international banking system, for lenders as well as borrowers. Furthermore, some of the most exposed borrowers are oil exporting countries such as Mexico, Nigeria, Venezuela and Ecuador. Some of these countries contracted their debts in order to develop their oil sectors, now ended up exporting more oil at lower prices.

The financial crisis also affected OECD countries indirectly, since oil-exporting countries purchase an important part of the OECD exports. Many oil-exporting countries borrowed on the basis of perceived future oil revenues, and they mostly used this extra revenue to purchase goods from

the OECD countries. When oil prices dropped, oil exporters decreased their imports, which affected OECD countries because these exports had been an important addition to OECD GDP.

Table 23

The devepolvenet of OPEC Surplus

(billions of U.S. Dollars)

Type of Placement	74	75	76	77	78	79	80	81	82	83
Placements in the U.S.:										
Bank Deposits	4.2	0.6	1.9	0.4	0.8	5.1	-1.3	-2.0	4.6	0.9
Other	7.3	7.3	9.2	6.9	-0.4	1.9	18.4	19.8	8.1	-10.4
Euro-currency Placements:										
Bank Deposits	22.0	8.7	11.2	16.4	6.6	33.4	43.0	3.9	-16.5	-11.9
Other	2.4	0.6	-0.9	1.2	0.0	2.0	2.6	0.5	-0.4	0.0
Other Placements: Total	20.3	26.0	20.9	21.0	18.6	19.7	37.5	40.7	18.2	11.6
TOTAL	56.2	43.2	42.4	45.8	25.6	62.1	100.2	62.9	14.0	-9.8
Bank Deposits as % of Total	50.9	22.9	28.8	39.3	28.9	65.2	44.2	3.9	-	-

Source: World development Report, 1985.

As a result of increased oil prices during 1973-1974 and 1979-1980, OPEC accumulated a huge surplus, more than their economic capacity to invest it. Some members of OPEC

emerged banks for financial aid to developing countries, for instance, the Islamic Development Bank and Kuwait Development Bank. Most of this aid is Arab aid. Egygt received more OPEC bilateral aid disbursements than did any other country ($5.5 billion during 1973-77 or 32% of total OPEC financial aid). Syria and Jordan predominated among OPEC aid recipients. 53 Muslim countries, or countries regarded as having substantial muslim factions, are also large recipients of OPEC financial aid. 54

53 Hallwood P. "Instability in the Term of Trade or Primary Product" OPEC Review, Vol. VIII, No. 7, 1973-74.
54 Hallwook, P. "Instability in the Term of Trade or Primary Product", OPEC Review, Vol. VIII, No., 7, 1973-1974.

Part 5

CONCLUSION

Higher oil prices have had a substantial adverse effect on the economic prospects of both the industrial countries and the developing countries. They contributed heavily to a reduction in the terms of trade, high inflation rates and recession in the industrial and developing countries, and to a long-lasting impairment of their capacity to import. Western Europe and Japan were significantly affected by the oil shocks because the degree of European and Japanese industry dependence upon imported oil is much larger than that of the United States.

The economic situation in developing countries became more difficult as a result of the higher oil prices. Their terms of trade became less favorable, capital flows were being eroded by international inflation, and foreign currency reserves in an increasing number of countries have been reduced.

This situation still prevails, particularly with respect to countries that depend on borrowing in the international capital market and must therefore maintain adequate reserves in order to demonstrate their credit worthiness.

The middle-income developing countries have more difficulties maintaining their growth since their borrowing capacity is more restricted and domestic adjustments are more difficult; this is because of the relatively small size of the modern sector in their economies. The NOD countries were hardest hit by the oil price rises of the 1970's. The effect of increased costs of imported oil is a stagnation of per capita incomes at their present level. NOD countries' balance of payment moved against them, especially their terms of trade with OPEC. The two oil shocks contributed to reduce the relative price of primary commodities of the NOD countries. The burden of supplying additional capital to NOD countries would fall heavily on the OECD countries. OPEC financial aid policies, especially Arab aid policies, reveal the members' fundamentalist and political concerns; it happens that the majority of NOD countries do not appear at the top of OPEC financial aid. Muslim countries, or countries regarded as having a substantial Muslim share in the population, also feature as large recipients of OPEC financial aid.

The recent drop in oil prices demonstrates the inability of OPEC to control the price of oil over the longer term. Members of OPEC broke the OPEC production quotas, trying to satisfy their need for increased revenues. OPEC's latest crisis has to some extent been initiated by Saudi Arabia; this country wants to force non-OPEC producers to cut their

oil production and in this way reduce the current over flow. The reasons for the OPEC difficulties include increasing rivalries among member states, the steady growth of non-OPEC oil output, and programs by oil consuming countries to limit petroleum consumption and develop alternative sources of energy. World demand for oil has been further reduced in 1985 by a warm winter. This slide in oil prices is hurting the domestic U.S. and Canadian oil industries, as well as some other oil producing countries, by making domestic exploration and to some extent oil production unproditable. This may lead to renewed dependence on foreign supplies. It should also be noted that the OPEC countries' production costs are lower than those of other producers. On the other hand, if the supply of oil from non-OPEC countries continues to increase, the demand for OPEC oil will be permanently reduced to a volume that does not permit OPEC to raise its selling price.

The effect of reduced oil prices is positive for industrial countries. For example, the Economic Council of Canada 55 recently estimated that the impact of falling oil prices on the Canadian economy will be an increase in the average rate of growth for real GNE in the period 1986 to 1990 of 0.4 percent per year.

55 Economic Council of Canada, Au Courant, Volume 6, No. 4, 1986.

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