THE INTERNATIONAL FINANCE ASPECTS OF OPEC: AN INFORMATIONAL NOTE

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T. Agmon, D.R. Lessard, and J.L. Paddock

M.I.T. World Oil Project

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OUTLINE

THE INTERNATIONAL FINANCE ASPECTS OF OPEC: AN INFORMATIONAL NOTE

The purpose of this note is to present a summary description of several financial aspects of OPEC and their relation to the world's capital markets. A brief analysis of this information is also included, but the main purpose is to collect and present the information in a systematic way, including sources.

The following questions were of particular interest when OPEC members raised the price of oil in 1973:

(1) What will be the intertemporal accumulation of surplus funds by OPEC given several possible scenarios?

(2) How will the investment disposition (OPEC's portfolio choices) of these surplus funds affect the world capital markets?

(3) What proposals did members of the world's financial community present to facilitate the investment of these funds and the financing of consumer-country trade deficits?

(4) What specific financial policies did consumer countries implement in reaction to the radical changes in world oil markets?

In this note we have compiled information as a source for subsequent analysis. The information is organized as follows. In Section 2 we present a summary of the many forecasts of OPEC accumulated financial surpluses.

Section 3 presents the estimated investment disposition of these surplus funds with particular focus on the U.S., U.K., and Euromarkets. Section 4 is a brief discussion with an extensive source listing of the various financial proposals. Section 5 presents sources for a chronology of the major financial events which led up to the 1973 price rise and thereafter. Finally, Section 6 is a brief summary of the changes in U.S. corporation-tax policy which came about after the 1973 OPEC actions.

1. FORECASTS OF OPEC ACCUMULATED FINANCIAL SURPLUSES

Forecasts of OPEC accumulated capital holdings abroad have been issued by many authoritative sources. These sources include commercial banks, governmental agencies, and international institutions. The forecasts are aggregative in nature but usually account for explicit assumptions as to: (1) cartel behavior regarding price and production decisions; (2) OPEC member countries' absorption;[1] and (3) worldwide demand for OPEC oil. However, the validity and consistency of many of the assumptions are often questionable. As to methodology, none of the forecasts appears to be based on either econometric modeling techniques or other rigorous analytical approaches. Rather, they are arithmetic extrapolations of hypothesized scenarios. None explicitly takes account of the simultaneity involved in the pricing, production, and absorption decisions of OPEC.

The first part of this paper discusses the general assumptions used in the forecasts. Then a summary of the specific scenario assumptions of some of the individual forecasts is presented. Finally, a comparative presentation of the various forecasts' revenues and surplus investible funds is made.

1.1 General Assumptions and Methodology

Basic to all these forecasts is the OPEC price, production, and absorption scenarios hypothesized. The usual presumptions are:

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[1] Absorption, as herein used, is defined as consumption + domestic investment + government expenditures.

(1) The OPEC cartel will hold together in an effective enough manner so as to cooperate on price and production decisions.

(2) Non-OPEC sources of energy will be developed but their effects will only be felt longer term.

(3) The world economy will recover from the present recession and moderate expansion will be sustained. Changes (both actual and expected) in relative prices of goods will be brought under control, and adequate financing of deficit countries will be facilitated.

(4) OPEC absorption will increase dramatically, not only in terms of rising per capita consumption but also in specific domestic capital investment plans to industrialize OPEC members' economies.

Discussing the above in turn, the effective cartel assumption presumes OPEC's behavior is that of a single monopolist facing a relatively price-inelastic demand curve. OPEC will try to maximize oil revenues over the medium term. The general assumption is that the oil-importing countries have now moved down to a relatively inelastic (short- to medium-term) portion of their demand curve. Long-term demand is usually assumed more elastic (e.g., the IBRD assumes near zero to 0.6 now, but moving up to unitary price-elasticity of demand by 1985).

This cohesive cartel hypothesis implicitly assumes that the low-absorption capacity OPEC countries[1] will incur the idle oil production capacity[2] necessary

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[1] Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates (primarily Abu Dhabi).

[2] Idle capacity estimates of 60% to 100% by 1985 are common--e.g., Fried of Brookings Institute.

to maintain the high price level. This then becomes a study in cartel revenue sharing. The brunt of this idle capacity will be borne by Saudi Arabia. Thus political factors can become an even more important determinant of OPEC's cohesiveness. For example, as high absorption (all not Arab) OPEC countries and fringe members strive to maintain real oil revenues in the face of more elastic, or only moderately growing oil demand, Saudi Arabia may be forced to sacrifice both market share and revenues to maintain the revenue-maximizing price.[1] Will she, a traditionally conservative country, support the excesses of others? Most forecasts assume the high absorption countries will incur relatively small deficits in future years. Thus, the low absorbers will incur the surplus and the netting out of the deficit OPEC countries to yield net surplus is not a significant problem in the analysis.

The assumption of longer-term availability of alternative methods of energy supply includes substitutes such as coal, solar, etc., as well as increased exploration and development of non-OPEC oil fields. The usual premise is that the current high OPEC prices will stimulate these other activities, but that their supply effects won't be felt over the medium term. OPEC's unique price, production cost, and reserve (supply) situation will presumably allow it to counter any short- to medium-term economic threats from these alternative sources. Political considerations such as Project Independence are usually assumed away to the longer term. This is not to imply that all forecasts assume OPEC's high prices will hold in real terms. Many forecasts see the real price declining in adequate fashion for OPEC to limit the energy substitution effects through, say, 1980 or 1985.

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[1] Recall the assumption is that OPEC as a whole is a single monopolist.

The forecasts imply the world economy will recover soon and the financial adjustment process, "recycling," will not be a constraint. This assumption subsumes OPEC's intertemporal portfolio decisions. For example, nowhere is there much concern regarding OPEC's tradeoff of oil in the ground vs. external financial instrument investment. The premise is that OPEC's supply strategy will not only maximize revenues but be adequate to fuel world economic recovery and growth.

The assumptions on OPEC absorption are crucial, and care must be taken not to underestimate their importance as it affects these forecasts. In all OPEC, though perhaps to a lesser extent in Kuwait and Iran, the large increase in oil revenues in 1974 certainly implies some significant structural changes in domestic investment and consumption. These structural changes must be considered in addition to the more obvious wealth and income effects. OPEC appears to perceive their new pricing strategy results as a change in permanent, not transitory, income.

After the production/pricing decisions, the absorption-related decisions by OPEC have very important ramifications regarding their surplus investible funds abroad. Indeed, the components of OPEC absorption, such as the amount and type of domestic investment, are a determinant of future non-oil OPEC revenues as well as of the portfolio decision regarding the supply of oil. Early forecasts underestimated absorption. More recent ones extrapolate substantial increases in absorption based on current rates of increase in OPEC imports and on government-announced development plans.[1] Further, most forecasts imply a zero price elasticity of demand for imports by OPEC in that different scenarios of change in relative prices contain the same volume of OPEC imports.

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[1]Many of these development plans have been cut back from their original levels.

Implicit in these extrapolations is the existence of a sophisticated infrastructure--e.g., administrative and planning talent, port facilities, distribution and maintenance systems, etc. The various forecasts of surplus OPEC funds have treated lightly the complicated questions posed by absorptive capacity, particularly as regards structural shifts.

In sum, the various forecasts available appear to be useful only as first approximations for the near term. They clearly lack analytical rigor. Each is based on a scenario of OPEC price/production strategies. This determines oil revenues. From revenues is subtracted absorption, the residual being surplus investible funds available for investment abroad in either direct or portfolio form. The elasticities of these estimates of surplus investible funds with respect to each of the three key elements--production, price, and absorption--are quite high. For example, a $1/bbl change (approximately 10%) in price in the recent (June 1975) First National City Bank forecast for 1976 implies a change in total revenues of $9.9 billion (approximately 10%). Thus the forecaster's scenario assumptions are crucial to the estimate of surplus. Forecast errors of small percentages in price, production, or absorption can cause large swings in OPEC revenues and surplus investible funds. Further, the assumed rate of return from dividends, interest, etc., on the foreign investments is seen to be a crucial variable, particularly in future years if the accumulated investment becomes large.

None of the forecasts discuss the investment <u>disposition</u> of the surplus funds. From a portfolio point of view, this is an important concern. Unfortunately, it is subsumed along with the "recycling" problem by these studies. But the disposition of these forecasted surplus funds is important in terms of the ability of world capital markets to absorb them. Capital market constraints, in turn, feed back into the price/production and absorption decisions.

In 1971, the combined capital markets of seven[1] major countries absorbed $338.8 billion of new funds, a large amount compared to most forecasted annual additions to OPEC surplus. However, the qualitative characteristics, i.e., investment disposition analysis, desired by OPEC investors may make the pure volume comparisons invalid.

Some forecasts have been continually revised--e.g., Morgan Guaranty. However, the other source forecasts usually draw on the ones dated previous, and are issued in response to a new world situation. Thus, in this sense, we can monitor the effects of changing oil market circumstances, both economic and political, on forecast revision. The primary factors giving rise to forecast revision are changing expectations of:

(1) OPEC price/production strategies

(2) Relative prices and OPEC absorption

(3) Elasticity of oil demand, including alternative source availability, by the industrialized countries.

The following is a summary of the major forecasts to date. As can be seen there is wide divergence among some of the studies compared to others. For example, the commercial banks forecast a short-term peak in surplus funds, whereas the IBRD study and the more recent Levy report show much higher surplus accumulations. These differences are due to the marketplace scenarios assumed as reflected in the price/production and absorption figures. Further, the studies don't necessarily agree on the past results of 1973 and 1974.

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[1] Canada, U.S., France, Italy, Japan, U.K., and Germany

1.2 Summary of Major Forecast Assumptions

The following list includes only those assumptions stated explicitly by the respective forecasts. Many forecasts listed none of their assumptions.

Exxon Corporation

1. Price: Oil prices will remain constant in real terms.

2. Production/Demand:

   (a) "Low Demand" scenario assumes a recovery from current depressed levels of OPEC oil exports up to around 30 mb/d and then holding steady at that level.

   (b) "Intermediate Demand" assumes a moderate growth in demand for OPEC oil beyond 1980.

3. Absorption: Emphasizes the separability of OPEC countries into low absorbers accumulating surpluses and high absorbers incurring small deficits on current account.

First National City Bank

1. Price:

   (a) "High" scenario assumes constant real prices.

   (b) "Central" scenario assumes a gradual reduction in nominal price (not government take) from $11.40/bbl to $9.10 in 1980.

   (c) "Cartel breakdown" scenario assumes that, due to revenue-sharing disagreements among OPEC members, price cutting will begin in 1978 and the price will fall to the "free market" level of $5 to $6/bbl in 1975 dollars.

   (d) "Low" scenario assumes there will be sharp OPEC price cuts in the 1980 to 1985 period with 1985 prices leveling at $7/bbl, in current dollars ($4.50/bbl in 1975 dollars).

2. Production/Demand:

   (a) "High" scenario assumes the demand for OPEC oil will remain high in 1975 and grow moderately through 1985. It assumes a relatively low price elasticity of demand.

   (b) "Central" scenario assumes a gradual increase in OPEC oil exports from 26 mb/d[1] in 1975 to 31 mb/d in 1980. Also, 1985 production will be only slightly higher than 1973.

   (c) "Cartel Breakdown" assumes the cartel will break its supply control in 1978.

   (d) "Low" scenario assumes demand will drop to 25 mb/d in 1975, increase temporarily in 1976 and 1977, then fall to 22 mb/d in 1980, then increase to 27 mb/d in 1985.

Walter J. Levy

1. Price: Assumes that OPEC total nominal government take per barrel will rise by the rate of inflation, 12% in 1976 and by 7%/year thereafter; thus the real price per barrel will remain constant.

2. Production/Demand: Assumes OPEC export volumes will be as follows in millions of barrels per day:

1974	1975	1976	1977	1978	1979	1980
29.6	26.5	30.0	31.5	32.5	32.5	31.5

3. Absorption: Assumes the annual rate of growth in the volume of OPEC imports of goods and services will be 15% through 1980. Further, the import prices faced by OPEC will rise by 12% in 1975 and 7%/year thereafter.

Irving Trust Company

1. Price:

   (a) "Case A: Scenario assumes that nominal prices (not government take) will rise at a somewhat higher rate than inflation in 1975 and 1976, keeping pace with a 7% rate of inflation thereafter.

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[1] mb/d means million barrels per day.

(b) "Case B" scenario assumes the price will decrease beginning in 1977 as OPEC cohesion is weakened by oversupply [production capacity?] reaching $7/bbl in 1980 ($4.50/bbl in 1974 dollars).

2. Production/Demand: Assumes a gradual decrease in OPEC oil exports to 24.7 mb/d in 1977 and hold level thereafter through 1980. In general, their scenario seems to imply a zero price elasticity of demand.

3. Absorption: Assumes a 20% annual growth rate in the volume of OPEC imports.

Edward R. Fried-Brookings Institute

1. Price:

(a) "Winter 1975" scenario assumes that "after a few years" prices will stabilize at about $5/bbl (in 1973 dollars f.o.b. Persian Gulf)

(b) "March 1975" scenario assumes "Oil prices in real terms should gradually decline from current levels, though remaining substantially above the soft prices of the 1960's.

2. Production/Demand:

(a) "Winter 1975" scenario assumes a steady, though moderate growth in OPEC oil exports so as to maximize producer revenues long-term.

(b) "March 1975" scenario assumes oil demand, in time, will decrease substantially due to increased development of alternative energy sources, increased exploration for oil, and increased energy self-sufficiency policies in importing countries. OPEC excess productive capacity (today 10 mb/d) will exceed demand by two-thirds in 1980 and by more than 100% in 1985.

Keith McLachlan and Narsi Ghorban

1. Price:

(a) "Case A" scenario assumes an average OPEC government take of $7/bbl for 1974 (posted price of $11.65) and $7.70 for 1975.

(b) "Case B" scenario assumes a weighted average government take (including participation buy back agreements and government's own sale) of $9.38/bbl for 1974 and $10.30 in 1975.

(c) "Likely" scenario assumes the nominal price will increase 8% to 10% per year to offset industrialized countries' inflation.

2. Production/Demand: The three respective scenarios assume OPEC output as follows in mb/d:

	1974	1975	1976	1977	1978	1979
"Case A"	22.8	25.4				
"Case B"	22.8	25.4				
"Likely"	22.9	25.0	26.8	28.5	29.7	30.9

Note that the identical production figures for Cases A and B imply a zero price elasticity of demand.

IBRD

1. Price:

(a) "Case 1" scenario assumes real prices (in 1974 dollars) remain level at the early 1974 level of $8.65/bbl through 1985.

(b) "Case 2" scenario assumes a gradual decline in the real price to $7/bbl (in 1974 dollars) by 1985.

2. Production/Demand: The two cases assume the following levels of OPEC oil exports in millions of metric tons:

	1975	1980	1985
"Case 1"	1577	1766	2000
"Case 2"	1577	2084	2430

Thomas R. Stauffer

1. Price: Seems to imply that nominal prices will hold at the new high levels.

2. Production/Demand: Assumes that the higher prices will dampen the growth of oil demand from 11% or 12% per year to, say, 4%.

3. Absorption: OPEC's imports will grow by some 15% per year.

Morgan Guaranty Trust Company, as reported in World Financial Markets (WFM)

1. Price:

   (a) WFM of 1/22/74: Current nominal prices will decrease 10% in 1974.

   (b) WFM of 9/23/74: 1975 prices will increase 5% over 1974 and by one-half the rate of world inflation thereafter.

   (c) WFM of 1/21/75: assumes a 5% per annum increase in OPEC government take per barrel through 1980.

2. Production/Demand:

   (a) WFM of 1/22/74: oil production will remain level in 1974 compared to 1973.

   (b) WFM of 9/23/74: demand for OPEC oil will increase 3% to 4% in 1975 over 1974.

   (c) WFM of 1/21/75: demand for OPEC oil will hold steady at 1974 levels through 1980.

   (d) WFM of 3/19/75: demand for OPEC oil in 1975 will be lower than the 1974 level, but will increase back to 1974 levels and hold steady there from 1976 to 1980.

3. Absorption:

   (a) WFM of 1/22/74: OPEC imports of goods will be as follows in billions of current dollars:

1972	1973	1974
17	25	35

   (b) WFM of 9/23/74: OPEC's import volume will increase by 20% to 25% per year through 1980. Accounting for inflation, specific dollar imports of goods and services will be as follows in billions of current dollars:

1972	1973	1974	1975
18	27	45 to 50	65 to 70

   (c) WFM of 1/21/75: the volume of OPEC imports will increase at an annual average rate of 20% through 1980. Price inflation of these imports will be 12% in 1975 and 7% annual average thereafter.

OECD

1. Price:

   (a) "Case 1" assumes real (relative) prices (1974 levels) remain constant.

   (b) "Case 2" assumes real (relative) prices (1974 levels) remain constant.

   (c) "Case 3" assumes real (relative) prices (1974 levels) remain constant.

   (d) "Case 4" assumes there will be a substantial reduction in oil prices in 1975.

2. Production/Demand:

   (a) "Case 1" assumes total demand for OPEC oil in 1980 will be approximately equal to that of 1973.

   (b) Cases 2, 3, and 4 assume demand for OPEC oil grows from 1974 to 1980 with the 1980 level being 15% to 20% above that of 1973.

3. Absorption:

   (a) Cases 1, 2, and 4 assume the high absorption OPEC countries will be running small current account deficits by 1980. They further assume that the low absorption OPEC countries will have import volume levels in 1980 of four times that of 1974 due to grand development scheme implementation.

   (b) Case 3 assumes the high absorption OPEC countries will be running small current account deficits by 1980. They further assume that the low absorption OPEC countries will have import volumes in 1980 of only twice that of 1974 due to long lags in private sector build ups of import demand and a relatively underdeveloped infrastructure in OPEC countries.

Japanese Export-Import Bank

1. Price:

   (a) Scenarios 1, 2, 3, and 4 assume a constant real weighted average government "take" of $10.12/bbl. This is the level established in November 1974 by most OPEC producing countries.

   (b) Scenario 5 assumes a constant real weighted average government "take" of $8/bbl.

2. Production/Demand: The respective scenarios assume the following:

	Demand for OPEC Oil in mb/d			1974 to 1985 Annual Average Growth Rate (% Change)
Scenario 1	28.0	33.4	43.4	+4.1
Scenario 2	28.0	28.8	33.1	+1.5
Scenario 3	28.0	24.2	24.5	-1.2
Scenario 4	28.0	16.0	15.0	-5.8
Scenario 5	28.0	33.4	43.4	+4.1

TABLE 1

OPEC Export Revenues (Including Oil, Investment Income and Non-Oil Goods), Current Dollars Billion

Source	'72	'73	'74	'75	'76	'77	'78	'79	'80	'85
1) Morgan Guaranty, January 1974: High[a]:	15	22	105							
2) Morgan Guaranty, January 1974: Likely[a]:	15	22	85							
3) Morgan Guaranty, June 1974[a]:		25	100							
4) Morgan Guaranty, September 1974:		30	110	125						
5) Morgan Guaranty, January 1975:			115	125	140	151	158	167	174	
6) Morgan Guaranty, March 1975:				111	140	151	158	167	174	
7) Morgan Guaranty, May 1975:				110						
8) Morgan Guaranty, October 1975[a]:			105	103	114					
9) Morgan Guaranty, October 1975:			115	116	131					
10) Morgan Guaranty, January 1976[a]:			101	100	113					
11) Morgan Guaranty, January 1976:			115	116	132					
12) Bank of England, March 1974[a]:	21	27	85							
13) Bank of England, December 1974[a]:		23	96							
14) IBRD, July 1974:		38		136					252	420
15) Abi Saleh, October 1974[b]:			68							
16) Economist I.U., 1974: Case A[b]:	10	15	58	72						
17) Economist I.U., 1974: Case B[b]:	10	15	78	96						
18) Economist I.U., 1974: Likely[b]:	10	15	75	92	107	123	140	156		
19) Banque de Bruxelles, December 1974[a]:		23	110							
20) al Hamad, February 1975[a]:				136	143	150	158	166	174	223

[a] Oil revenues only

[b] Middle East OPEC members' oil revenues only

TABLE 1 (Continued)

Source	'72	'73	'74	'75	'76	'77	'78	'79	'80	'85
21) Kissinger, February 1975[a]:	23	23	110							
22) International Petroleum Encyclopedia, 1975[a]:			111	116						
23) Bank for International Settlements, June 1975[a]:		32	115							
24) Irving Trust, March 1975: Case A[c]:			122	140	149	153	168	183	198	
25) Irving Trust, March 1975: Case B[c]:			122	140	149	127	123	117	109	
26) U.S. Treasury, May 1975:			99							
27) U.S. Treasury, January 1976[a]:				98	111					
28) Levy, June 1975: Base-Case:			105	108	144	166	187	204	217	
29) First National City Bank, June 1975: Central[c]:		45	135	121	134	137	141	142	142	183
30) Exxon, June 1975: Low Demand			103	117	142	167	183	199	218	328
31) Exxon, June 1975: Intermediate:			103	117	144	174	194	218	244	388
32) Japanese Ex-Im Bank, August 1975: Scenario 1[a,d]:			110						124	162
33) Japanese Ex-Im Bank, August 1975: Scenario 2[a,d]:			110						107	123
34) Japanese Ex-Im Bank, August 1975: Scenario 3[a,d]:			110						90	92
35) Japanese Ex-Im Bank, August 1975: Scenario 4[a,d]:			110						59	56
36) Japanese Ex-Im Bank, August 1975: Scenario 5[a,d]:			110						95	124

[a] Oil revenues only

[b] Middle East OPEC members' oil revenues only

[c] Total posted price value of exports, not government revenues or "take"

[d] Constant 1974 dollars

TABLE 2

OPEC Accumulated Surplus To Be Invested Abroad, Current Dollars Billion

Source	'72	'73	'74	'75	'76	'77	'78	'79	'80	'85
1) Barclay's Bank, August 1973:									100	
2) Morgan Guaranty, January 1974:	-2	-3	50							
3) Morgan Guaranty, September 1974:			80	140			300			
4) Morgan Guaranty, January 1975:		17	80	137	191	231	248	235	179	
5) Morgan Guaranty, March 1975:		17	80	122	176	216	233	220	164	
6) Morgan Guaranty, April 1975:		17	73							
7) Morgan Guaranty, May 1975:				108						
8) Morgan Guaranty, October 1975:				110	140		200 declining thereafter			
9) Morgan Guaranty, January 1976:				103	127					
10) Bank of England, March 1974[d]:	7	13	60							
11) Bank of England, January 1974:		10	65							
12) Stauffer, April 1974:		15	55						300	
13) IBRD, July 1974:		26		170					653	1206
14) OECD, July 1974: Case 1[a]:			60						250 to 300	
15) OECD, July 1974: Case 2[a]:			60						300	
16) OECD, July 1974: Case 3[a]:			60						350 to 375	
17) OECD, July 1974: Case 4[a]:			60						200	
18) OECD, July 1975[a]:			67	104	137	165	186	204	215	200

[a]Constant 1974 dollars

TABLE 2 (Continued)

Source	'72	'73	'74	'75	'76	'77	'78	'79	'80	'85
19) Sh. Nashashibi, August 1974[d]:			58							
20) Banque de Bruxelles, December 1974[b]			61							
21) U.S. Treasury (Willet), January 1975:									300 to 500	
22) U.S. Treasury (Cooper), May 1975:									275 to 400	
23) U.S. Treasury, (Parsky), May 1975[a]:			60	110			200 to 250			
24) U.S.Treasury (Parsky), July 1975[a]:			60	105			175 to 250			
25) U.S. Treasury, January 1976:		5	64	106	151					
26) Chenery, January 1975:									500	
27) Fallah, January 1975:									300 to 600	1,200
28) al Hamad, February 1975[b]:				25	51	79	108	138	170	
29) Fried (Brookings), Early 1975[c]:									135	210
30) Fried (Brookings), March 1975[a]:									150	225
31) Burns (Federal Reserve):									500	
32) Gaines (Manufacturer's Hanover):									600	
33) International Petroleum Encyclopedia, 1975:			57							
34) Irving Trust, March 1975: Case A:			85	149	200	234	258	265	248	
35) Irving Trust, March 1975: Case B:			85	149	200	208	187	128	22	

[a] Constant 1974 dollars

[b] Surplus from oil revenues only

[c] Constant 1973 dollars

[d] Current account surplus

TABLE 2 (Continued)

Source	'72	'73	'74	'75	'76	'77	'78	'79	'80	'85
36) IBRD, April 1975:									460	
37) Bank for International Settlements, June 1975[d]:		5	70							
38) Pollack, June 1975[d]		5	55							
39) Levy, June 1975: Base-Case			75	122	191	264	337	402	449	
40) Levy, June 1975: Case 1:									511	
41) Levy, June 1975: Case 2-1:									259	
42) Levy, June 1975: Case 2-2									509	
43) Levy, June 1975: Case 3-1									569	
44) Levy, June 1975: Case 3-2									312	
45) First National City Bank, June 1975: Central		1	66	102	139	169	188	196	189	30
46) First National City Bank, June 1975: High		1	66	115	165	220	250	265	285	185
47) First National City Bank, June 1975: Cartel Breakdown:		1	66	102	139	169	188	165	125	-20
48) First National City Bank, June 1975: Low		1	66	95	120	130	125	115	80	-5
49) Exxon, June 1975: Low Demand		17	72	114	153	198	242	284	328	540
50) Exxon, June 1975: Intermediate		17	72	114	155	206	261	319	383	760
51) Japanese Ex-Im Bank, August 1975: Scenario 1[a]			53						328	449
52) Japanese Ex-Im Bank, August 1975: Scenario 2[a]			53						297	323
53) Japanese Ex-Im Bank, August 1975: Scenario 3[a]			53						266	202
54) Japanese Ex-Im Bank, August 1975: Scenario 4[a]			53						188	-8
55) Japanese Ex-Im Bank, August 1975: Scenario 5[a]			53						224	218

[a] Constant 1974 dollars

[b] Surplus from oil revenues only

[c] Constant 1973 dollars

[d] Current account surplus

2. THE DISPOSITION OF OPEC INVESTMENTS IN THE U.K., U.S., AND EUROMARKETS

There is a dearth of substantiated data and information regarding the investment disposition of OPEC surplus investible funds. This is particularly true of the less tractable fund flows such as into equities, real estate, and other direct investment; neither is there good information on OPEC's stock of assets. Their portfolio composition, as well as their investment decisions at the margin, remains substantially unrevealed. Publically released information, such as the AT&T loan from Saudi Arabia, account for only a very minor portion of their transactions. Thus, knowledge of the asset characteristics desired by OPEC is negligible in the importing countries, and perhaps even in OPEC itself. Certainly a more experienced OPEC investor like Kuwait, or perhaps Iran, has a portfolio composition different from other OPEC countries. Also, low absorption countries may have different portfolios from potentially high absorbers. In fact, some authorities speculate that the high absorption countries by now have only a relatively small amount of foreign assets and all of those in liquid form. Thus with no accurate data, and with few clear indications of OPEC portfolio choice to provide clues as to where their funds are going, a comprehensive documentation is not possible.

Many countries report no data on OPEC investments within their confines, and there certainly are no published forecasts of the future OPEC investment disposition. This also hampers a proper analysis of the future need for recycling facilities and investment media. Thus many existing financing proposals respond only to short-term, partial-equilibrium considerations.

Several sources, most notably: (1) Morgan Guaranty Trust; (2) U.S. Treasury and Department of Commerce; (3) The Bank of England; and (4) The Bank for International Settlements have made estimates of OPEC's investment disposition. These flow estimates are constructed from reported transactions data within their respective purviews. These estimates are relatively consistent (not necessarily surprising since they use similar information). They are most certainly useful as a first approximation.

The following is a brief analysis of OPEC investment in the U.K., U.S., and Euromarkets. Due to the estimated nature of the data, an analysis of any depth greater than that herein may not be fruitful.

2.1 United Kingdom

The following is a brief description of the OPEC investment and financing effects in 1974 and 1975 in the U.K. The trends noted may give an indication as to the future portfolio aspects of OPEC investing. For example, the Bank of England concludes there is a tendency for OPEC investments in the U.K. to be going longer-term. U.S. Treasury Secretary Simon says (July 1974) that the same tendency is true for OPEC investments in the U.S. Whether these conclusions, if indeed valid, are due to such things as the moderation in the "inverse" relationship of long/short interest rates in the U.K., the U.S., or other portfolio considerations remains a hypothetical question. For example, notice in Table 3 the rise in sterling holdings by OPEC in 74:4 was smaller than for 74:3. This is presumed due to increased OPEC investments in "U.K. property and equities," and by OPEC direct long-term lending to the British public sector. However, this was also the time (December 1974) of Saudi Arabia's decision to take payment all in dollars rather than 25% in pounds and 75% in dollars. This latter action would imply reduced OPEC holdings of

TABLE 3

U.K. Balance of Payments and Financing

	1973	1974	74:1	74:2	74:3	74:4
Current Balance, £ Millions, Seasonally Adjusted	-1,115	-3,830	-975	-985	-795	-1,075
Component of Current Balance: Visible Trade Balance Due To Petroleum Products, £ Millions, Seasonally-Adjusted	-940	-3,445	-770	-880	-875	-920
Financing of Current Account Deficit (Not Seasonally Adjusted Basis):						
Current Balance, £ Millions	-1,115	-3,830	-1,090	-965	-860	-915
Capital Transfers, £ Millions	-60	-75	0	-30	-40	-5
Financed By (+ = Decrease, - = Increase)						
Change in Reserves, £ Millions	-210	-80	+40	-110	-185	+175
Foreign Currency Borrowing: Central Government (All was from the Euro-Dollar Facility), £ Millions	0	+645	0	0	0	+645
Foreign Currency Borrowing: Other Public Sector, £ Millions	+1,100	+1,240	+335	+500	+215	+190
Increase in Sterling Holdings - Total, £ M.	+155	+1,560	+185	+385	+615	+375
Increase in Sterling Holdings - OPEC, £ M.	N.A.	+2,215	+265	+595	+925	+430
Other Capital Flows, £ Millions	+130	+540	+530	+220	+255	-465
International Reserves, $ Millions	6,476	6,939	6,444	6,711	7,188	6,939

Source: Quarterly Bulletin, Bank of England

sterling in that oil companies wouldn't need sterling deposits anymore to pay Saudi Arabia, which in turn doesn't receive pounds to deposit in U.K. banks. On balance for 1974, OPEC added £ 2,215 million to their sterling holdings. This amount was only slightly less than the increase in the U.K. oil bill. Thus in partial equilibrium terms one might conclude that the oil-exporting countries financed the largest part of the U.K. current account deficit. Additionally, trade credits (on oil companies from OPEC) were also important, as were capital influxes used to finance oil companies' development of the North Sea fields. As can be seen, Britain's international reserves actually increased in 1974 over 1973 by $463 million.

On trade[1] balance with OPEC, the U.K. reported[2] the following:

	74:1	74:2	74:3
U.K. exports to OPEC, $ million	481.8	914.5	525.4
U.K. imports from OPEC, $ million	2,002.4	3,232.1	1,351.3
Net on current account with OPEC, $ million	-1,520.6	-2,317.6	-825.9

Tables 4, 5, and 6 give three estimates of the world's disposition of OPEC surplus investible funds. The numbers don't necessarily bear out the Bank of England conclusion that OPEC investments in the U.K. are shifting to longer-term. For example, maturities of government securities are not really identified. Indeed Morgan Guaranty Trust reports in World Financial Markets (4-15-75) that although OPEC investments in the U.S. are turning longer-term (e.g., corporate stocks and bonds), OPEC U.K. investments are staying in

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[1] Data on capital account transactions between OPEC and the U.K. can only be calculated as a residual.

[2] Source: Quarterly Bulletin, Bank of England. Direction of Trade data is significantly different in amounts.

TABLE 4

Estimated OPEC Foreign Investments - 1974 To Date

	Total 1974	74:1	74:2	74:3	74:4	75:1	75:2
OPEC Revenue in U.S. Dollars, $ Billion	74.8	8.6	18.8	24.1	23.3	21.3	22.7
OPEC Revenue in Sterling, $ Billion	19.0	3.1	5.6	5.1	5.2	4.0	2.9
OPEC Revenue Total* in $ Billion	93.8	11.7	24.4	29.2	28.5	25.3	25.6
*Of the $93.8 billion total, $56 billion was surplus available for overseas investment deployed by OPEC as follows in $ billion:							
U.K.							
British Government Stocks	.9	.4	.1	.2	.2	.2	.1
British Government Treasury Bills	2.7	.4	.7	.7	.9	.6	-.3
Sterling Deposits	1.7	-.1	.7	1.1	0	.2	-.2
Other Sterling Investments Including Equities and Real Estate	.7	.1	.2	.3	.1	-	.1
Foreign Currency Deposits (Primarily Eurodollar Deposits)	13.8	2.5	4.5	3.4	3.4	1.7	.3
Other Foreign Currency Borrowing	1.2	0	.5	.3	.4	-	.2
Total U.K.	21.0	3.3	6.7	6.0	5.0	2.7	.2
U.S.							
U.S. Government and Agency Securities	6	.5	1.4	2.3	1.8	.9	.4
U.S. Bank Deposits	4	.6	.8	2.3	.3	-.5	.4
U.S. Other Including Equities & Real Estate	1	0	.1	.4	.5	.3	.7
Total U.S.	11	1.1	2.3	5.0	2.6	.7	1.5
Other Countries							
Foreign Currency Deposits	9.0	1.5	3.5	1.5	2.5	2.5	2.5
Loans, Foreign Aid, and Other (Including Equities and Real Estate)	11.6	1.1	2.5	3.0	5.0	1.8	3.5
Total Other Countries	20.6	2.6	6.0	4.5	7.5	4.3	6.0
International Organizations	3.6	0.0	.5	.8	2.3	1.2	.3
Total OPEC	56.2	7.0	15.5	16.3	17.4	8.9	8.0

Source: Quarterly Bulletin, Bank of England

TABLE 5

Estimated OPEC Foreign Investments - 1974 To Date

Current $ Billion

	1974	First Six Months of 1975	First Six Months of 1975 At An Annual Rate	First Nine Months Of 1975	First Nine Months of 1975 At An Annual Rate
U.S. Total[1]	11.25	2.25	4.5	4.5	6.0
Euro-Banking Market (Euro-Currency Deposits With U.K. and Other Banks)	22.5	10.25	20.5	7.5	10.0
U.K. Other	7.5	0.75	1.5	.75	1.0
Other Developed Countries (Including All Borrowings)	5.5	2.5	5.0	N/A	N/A
IFI Bonds and IMF Oil Facility	3.5	1.75	3.5	N/A	N/A
Other Flows to LDC's (including grants)	4.0	3.5	7.0	N/A	N/A
All Other	5.75	3.0	6.0	N/A	N/A
Total	60.0	24.0	48.0	31.0	41.3

[1]For the first eleven months of 1975, the U.S. Treasury Reports $4.7 b total OPEC investments in the U.S. of which $1.6 b was in Treasury bonds and notes, $1.3 b in federal-agency issues and corporate bonds, $1.2 b in corporate stocks, and about $600 million in longer-term bank deposits, (Source: Oil and Gas Journal, February 16, 1976, page 42).

Source: U.S. Treasury

TABLE 6A

Estimated OPEC Foreign Investments - 1974

Current $ Billion

	Total 1974	74:1	74:2	74:3	74:4
U.S. Dollar Bank Deposits	4.5	0.6	1.2	2.1	0.6
U.S. Government Securities	6.0	0.5	1.4	2.2	1.9
Total U.S. Liquid Investments	10.5	1.1	2.6	4.3	2.5
U.K. Sterling Bank Deposits	2.5	0.0	0.6	0.9	1.0
U.K. Government Securities	3.5	0.8	0.8	0.9	1.0
Total U.K. Liquid Investments	6.0	0.8	1.4	1.8	2.0
Eurocurrency Deposits	20.5	3.8	6.7	5.0	5.0
Total Liquid Investments	37.0	5.7	10.7	11.1	9.5
IMF Oil Facility	2.0				
Loans to World Bank and Other International Institutions	2.25				
Grants and Loans to LDC's	2.5				
Direct Loans to Europe, Japan, and Canada	6.5				
Total Direct Investments (Real Estate, Other)	4.75				
Total Surplus Funds Invested Abroad	55				

Source: World Financial Markets, January 21, 1975 (Morgan Guaranty Trust Company)

TABLE 6B

Estimated OPEC Foreign Investments

	1974	1975
Financial Surplus	52.0	29.5
Investments in United States	11.0	5.5
Bank Deposits	4.0	-
Treasury Bills	5.4	0.8
Bonds and Direct Loans	1.2	3.3
Equities	0.4	1.4
Investments in United Kingdom	7.2	0.2
Bank Deposits (in £)	1.7	0.2
Treasury Bills (in £)	2.7	0.4
Government Bonds (in £)	0.9	-0.9
Equities and Property (in £)	0.7	0.3
Direct Loans (Foreign Currency)	1.2	0.2
Euro-Currency Bank Deposits	22.7	7.0
International Organizations	4.0	2.9
IMF Oil Facility	1.9	2.7
World Bank & Other Regional Development Institutions	2.1	0.2
Grants and Loans to Developing Countries	2.5	4.0
Direct Loans to Developed Countries Other Than U.S. & U.K.	4.5	2.0
Other Net Capital Flows[a]	0.1	7.9

[a]Including investments in Eurobonds, other portfolio investments, direct investments, and local currency bank deposits in countries other than U.S. and U.K. as well as debt repayments.

Source: World Financial Markets, March 1976 (Morgan Guaranty Trust Company) Current $ Billion

Government securities with no discernible term to maturity shifting. However, anecdotal evidence indicates OPEC long-term investments in the U.K. are increasing (e.g., Kuwait real estate purchases). OPEC does seem to be increasing its proportion of investment in equities, real estate, and "other" in the world exclusive of the U.S. and U.K.

The prospects for financing the U.K.'s OPEC trade deficit in 1975 are unclear. As can be seen in Table 4, total cash receipts by OPEC decreased in 75:1 from 74:4 by $3.2 billion. However, the proportion paid OPEC in sterling decreased from 18+% to less than 16%. This share declined to approximately 11% in 75:2. The U.K.'s share of OPEC total investments remained level in 75:1 but dropped dramatically in 75:2. Finally, the following facts must be considered:

1. U.K. has no net borrowing available under the IMF oil facility.
2. U.K. trade exports to OPEC decreased substantially in 74:3 compared with 74:2.
3. OPEC is maintaining a liquid position with regard to its U.K. investments vis-a-vis the rest of the world.
4. Saudi Arabia is still accepting no sterling payments on its export account.
5. OPEC capital flows to the U.K. were of substantial importance in financing its 1974 deficit. These inflows appear to be dwindling for 1975.
6. Anecdotal evidence indicates the U.K. is actively seeking loans from OPEC countries for 1975, in addition to the major Iranian loan in late 1974.

2.2 United States

Tables 4, 5, 6, and 7 present various estimates of OPEC's investments in the U.S. There seems to be an increase in the OPEC investment proportion going into long-term holdings. Simon, the Bank of England, and Morgan Guaranty

TABLE 7

Estimated OPEC Investments in the U.S. - 1973 to 1975:1

	1973	1974	74:1	74:2	74:3	74:4	1975:1
Increase (+) in U.S. Liquid Liabilities to OPEC (including All Liabilities to OPEC Official Agencies)	0.5	10.7	1.1	2.8	4.5	2.3	0.5
Net Purchases (+) of U.S. Equities (Stocks) by OPEC	0.1	0.3	---	---	0.1	0.2	0.3

Source: U.S. Department of Commerce, Survey of Current Business, June 1975, current $ Billion.

all acclaim this as a noticeable trend. However, based on the numbers, the validity of this conclusion is questionable as the actual dollar amounts are very small. The U.S. share of total OPEC investments decreased slightly from 21% in 1974 to 18% in 1975.

2.3 Euromarkets

Tables 4, 5, and 6 show the estimated OPEC investments in the Euromarkets, primarily in Eurodollar deposits. This category is quite significant as a proportion of total OPEC investments (44% in 1974 and 24% in 1975). Notice in Table 4 that the share of total going to foreign currency deposits (Euromarket) outside the U.K. and U.S. markets approximately doubled in 75:1 and 75:2 over 1974.

According to the Bank for International Settlements, new deposits by OAPEC[1] continued to be the most important single source of new Eurocurrency funds. Flows from this source were estimated at $3.5 billion in 75:1, down from $5.4 billion in 74:4. The total increase in the Euromoney market flow was $6 billion in 75:1, or about one-half the expansion in 74:4. Of this $6 billion increase, one-half was in currencies other than dollars. Thus OAPEC accounted for approximately 59% of the increase in the Eurocurrency market in 75:1, up from 45% in 74:4. Further, a larger proportion of this went into non-dollar currencies, in particular the Deutsche Mark. Note that 75:1 was a period of dollar weakness.

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[1] Organization of Arab Petroleum Exporting Countries

3. OPEC-RELATED FINANCIAL PROPOSALS

There is no complete compendium of the various financial proposals which have been put forth to solve the "problems" of OPEC surplus investible funds and importing country deficit financing. The number of serious proposals is small and only a limited number of them have been put into operation, primarily as supplemental measures. In general, the processes of primary and secondary recycling have taken place through existing market mechanisms with little or no overt government intervention. The international adjustment mechanisms, as reflected in the trade and capital accounts, seem in 1974 to have adequately handled the OPEC induced "shock" to the international system. In terms of financing, the international capital markets were not overly "strained," contrary to early predictions. These markets most certainly carried the brunt of the financing weight. Special facilities,such as that implemented by the IMF and Germany's loan to Italy, were used as short-term supplemental measures. However, the actual necessity of their existence is not clear. In any event, two points are worth noting:

(1) The international capital markets functioned relatively effectively in the recycling process despite announced expectations to the contrary. That is the markets and their process performed adequately in spite of further destabilizing actions by those who acted on the cries of "wolf." This is not to imply that the future holds no recycling problems--only that 1974 pulled through. Perhaps the cries of wolf induced the major market participants to act in a more stabilizing fashion due to greater awareness or concern.

(2) The early predictions of dire consequences for the industrialized world and international capital markets were obviously based only on partial equilibrium considerations. In a general equilibrium context it is perhaps not at all surprising that the adjustments of 1974 were smooth. This result is so aptly shown in the trade context in the Agmon-Laffer[1] paper.

The above discussion is not a comprehensive discussion of recycling. Nor is it to imply that post-1974 years will adjust smoothly or that the adjustments of 1974 were necessarily efficient in Pareto-Optimal terms. Rather its points are that: (1) only a few of the various proposals were actually implemented; (2) their relative effect was small; (3) they are seemingly short-term in function; and (4) they were promulgated on partial equilibrium concerns.

The case of LDC's (less developed countries) may be an exception to the above. Short-term, the international adjustment process seems to have worked against this group of countries. Specific programs of accomodation for LDC deficit financing by OECD countries, OPEC, and world financial institutions (e.g., IBRD and IMF) may have been a critical input. The focus of some proposals was solely on the LDC situation.

The project of researching the various proposals, ascertaining their status, and anlyzing the effects of those implemented can be a very time-consuming process. Thus, this paper is limited to a source-listing of the various proposals.

The following three sources yield the best summaries of major financial proposals:

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[1]Agmon, T. and A.B. Laffer, "Trade Effects of the Oil Crisis," M.I.T. Sloan School of Management Working Paper Number 809-75, September 1975.

1. Agmon, T.B. and D.R. Lessard, "Financial Markets and Oil Revenues: An Analysis of the Role of Financial Markets as Limiting Factors on Production and on the 'Recycling' of Funds Among Importing Countries," April 1975.

2. Alexander, S.S., "Problems For a Task Force on International Oil: Financing, Prices, and Security of Supply," February 1975.

3. Roosa, R.V. et al., "How Can the World Afford OPEC Oil?," Foreign Affairs, Volume 53, No. 2, January 1975.

Using these as an outline, additional detail, proposals and status of proposals can be gleaned from a survey of other sources which include the following:

1. Euromoney (is also a good source for specific proposals put forth by OPEC members themselves--often an overlooked sphere of influence).

2. OECD Economic Outlook

3. Annual Report, Bank for International Settlements

4. The New York Times

5. The Wall Street Journal

6. Kleinman, D.T., "A Plan To Utilize The Excess Capital Reserves Of The Oil Producing Countries To Assist The Economic Development Of The Third World," paper delivered at the Fifth International University for Presidents, Young President's Organization, Inc., Paris, May 1974.

7. Stauffer, T.R., "Oil Money and World Money: Conflict or Confluence?," Science, Volume 184, No. 4134, April 19, 1974.

8. Fried, E.R., "Perspectives on Energy," The Brookings Bulletin, Volume 12, No. 2, Spring 1975.

9. Petroleum Intelligence Weekly

10. Quarterly Bulletin, Bank of England

11. Petroleum Industry Trends

12. Barattieri, V. (of Banca d' Italia, Rome), "The Oil Exporters and the Euromarkets," Euromoney, May 1974.

13. Teman, A. (Managing Director, Banque Nationale d'Algerie, Algiers), "An Oil-Based Arab Currency," Euromoney, May 1974.

14. Asseily, A., "Hustling the East Into Recycling its Funds," Euromoney, July 1974.

15. Sh. Nashashibi, H., (Investment Manager, Arab Fund for Economic and Social Development, Kuwait), "Other Ways to Recycle Oil Surpluses," Euromoney, August 1974.

16. Abushadi, M.M. (Chairman, Union de Banques Arabes et Francaises), "Will New York Attract Arab Capital?," Euromoney, September 1974.

17. Melville, M. (Hambros Bank, London), "The Arcru: Something For Everyone, Not A One-Way Street," Euromoney, September 1974.

18. Hoss, S. (Chairman and General Manager, Banque Nationale pour le Developpment Industriel et Touristique, Beirut), "Developing Longer-Term Channels for Arab Oil Money," Euromoney, October 1974.

19. Abi Saleh, F. (Assistant General Manager, Investment and Finance Bank, Beirut), "Putting Oil Revenues in Their Proper Context," Euromoney, October 1974.

20. Kuczynski, P.P., "Recycling Petrodollars to the Third World," Euromoney, November 1974.

21. Turner, J.N., "IMF Recycling--What Happens Next?," Euromoney, December 1974.

22. Kuranda, H., "The EEC's New Oil Money Loan," Euromoney, December 1974.

23. Ali, A., "Explaining Saudi Arabia's Attitude to Recyling," Euromoney, December 1974.

24. Mendelsohn, M.S., "Recycling Along Nine Channels," Euromoney, January 1975.

4. CHRONOLOGY OF OPEC-RELATED FINANCIAL EVENTS

OPEC was organized in 1960 with the avowed purpose of stopping the decline in world crude oil prices. Throughout the next decade, its economic muscle was fairly weak. Nevertheless, the undercurrents of "spectacular" events such as the October 1973 and January 1974 posted price increases were apparent throughout the latter 1960's and early 1970's. The price rises and supply boycott did not materialize out of thin air. Rather they were the culmination of visible events and policies of the 1971-1973 period during which time OPEC's strength and unique monopolistic market position coalesced. As Mancke [1-2] correctly notes, during 1970 to 1973 Saudi Arabia and Iran supplied nearly 75% of the net additions to world oil demands. At the same time, U.S. output was declining.

There exist a few, somewhat detailed chronologies covering the period up to January 1974 when the second major posted price increase was effected. Usually, these chronologies specialize in events of a certain character such as: (1) Dealings of the multinational oil companies with the OPEC members. Here one might find a description of the interaction between firms and countries as producer states sought to gain control of the MNC's operating subsidiary; (2) World financial market reactions to the expected and actual effects of the price rise and supply boycott. Foreign exchange rate movements would be discussed here. Thus the purpose (e.g., Senate hearings on MNCs) for which the particular chronology was prepared dictates its emphasis.

A synthesis of these existing chronologies will provide good coverage of the various financial, corporate, major political and market (e.g., oil price movements) events of the period up to January 1974. However, nowhere is there compiled a chronology of the events from early 1974 to the present. This is, of course, the period during which the financial effects were most

evident and thus of most interest. The chronology contained in Barclay's Review does go through the end of 1975. Its emphasis is on major financial events, but it is not complete. Therefore, we have also listed some of the supplemental source material which would be needed to fill in the gaps. It would be a time-consuming task to collate all this information into a complete chronology.

Listed below are the major sources of chronologies and events.

I. Existing Chronologies

1. Multinational Corporations and United States Foreign Policy - Hearings before the U.S. Senate Subcommittee on MNCs, Parts 4, 5, and 6.

2. Mancke, Richard B., "The Future of OPEC," Journal of Business, Volume 48, No. 1, January 1975.

3. Roosa, R.V. et al., "How Can The World Afford OPEC Oil?," Foreign Affairs, Volume 53, No. 2, January 1975.

4. Fieleke, N.S., "Oil and International Payments," New England Economic Review, November/December 1974.

5. Barclay's Review, published quarterly by the Group Economic Intelligence Unit, Barclay's Bank Ltd., London

II. Supplemental Sources

1. OECD Economic Outlook

2. Euromoney

3. World Financial Markets by Morgan Guaranty Trust Company

4. Petroleum Industry Trends

5. Petroleum Intelligence Weekly

6. McLachlan, K. and Ghorban, N., Oil Production, Revenues and Economic Development, QER Special No. 18, The Economist Intelligence Unit, Ltd., London.

7. The New York Times

8. The Wall Street Journal

9. Quarterly Bulletin, The Bank of England

10. Annual Report, Bank for International Settlements

11. Middle East Economic Survey

12. The Brookings Bulletin

13. Daedalus, Fall 1975: "The Oil Crisis in Perspective."

5. NOTE ON FEDERAL (U.S.) INCOME TAXATION OF U.S.-BASED MULTINATIONAL OIL CORPORATIONS

The Federal Tax Reduction Act of 1975, signed into law on March 29, 1975, contained major changes affecting the operations of U.S.-based oil companies. This note specifically summarizes these changes as they pertain to the foreign operations of these companies. The Act became effective on January 1, 1975 and is applicable to taxable years ending after December 31, 1974. For fiscal year taxpayers this implies taxable income must be divided into two portions in the transition year, with the cut-off date being December 31, 1974.

The major effects of this Act are to change the tax treatment of:

1. Depletion Allowances
2. Foreign Tax Credits
3. Investment Tax Credits

We treat each of these aspects separately. The reader is encouraged to reflect on how these respective changes will affect the following decisions of multinational oil companies:

1. Investment
2. Geographical Distribution of Profits
3. Organization Structure (in legal/accounting sense as well as in management terms)

5.1 Depletion Allowances

Depletion allowances are allowed as deductions from gross income (net of royalties) for tax purposes for any entity with an economic interest (i.e., derives income from or has an investment in) in an oil or gas deposit. Computation of this deduction can take two forms:

1. "Cost depletion" - Estimated total mineral reserves (in units - e.g., barrels of oil) is divided by estimated total cost of extraction to obtain a per unit cost of extraction or "depletion." This cost figure multiplied by the units extracted in the taxable period yields the amount of "cost depletion" deduction in computing taxable income for that period.

2. "Percentage depletion" - A straight percentage (= 22% for oil and gas production) of gross income is used as the depletion deduction in computing taxable income. However, this deduction is limited to 50% of the taxable income from the operation excluding the deduction for depletion.

In general, the "percentage depletion" deduction greatly exceeds the amount computed under "cost depletion." Under the old tax law, companies traditionally applied this percentage depletion on U.S. as well as foreign oil operations against their U.S. taxes. In any event, the law required them to take the largest depletion deduction.

The new law (effective January 1, 1975) severely restricts the deduction for percentage depletion on oil and gas production. In particular, foreign operations no longer qualify for the use of the percentage depletion method. They must now use the cost depletion method which traditionally has been less beneficial in terms of tax savings.

5.2 Foreign Tax Credits

The new tax law defines two income terms, knowledge of which is necessary to an understanding of the new provisions:

1. "Foreign oil and gas extraction income" is defined as income derived from sources outside the U.S. and its possessions from:

   a. The extraction of minerals from oil or gas wells

   b. The sale or exchange of assets used by the taxpayer in the extraction of minerals from oil or gas wells

   c. Taxable dividends (actually/or as deemed paid by U.S. law "Subpart F") from a foreign corporation (including subsidiaries) to the extent attributable to the foreign corporation's (i.e., payer's) foreign oil or gas extraction income.

   d. The distributive share of a partnership's income, to the extent attributable to the partnership's foreign oil or gas extraction income.

2. "Foreign oil related income" is defined as income from sources outside the U.S. and its possessions from "foreign oil and gas extraction income" (as defined above) plus the following:

   a. The processing of such minerals into their primary products

   b. The transportation, distribution, or sale of such minerals or their primary products

   c. Taxable dividends received from a U.S. corporation to the extent attributable to the payer's foreign oil-related income.

Obviously "foreign oil-related income" is a much broader category since it includes "foreign oil and gas extraction income."

Under the old law "foreign tax credits" could be credited against computed income taxes. However, the new law contains significant changes in both the definition of allowable tax credits and their computation. These new provisions are as follows:

(1) In computing a taxable period's foreign oil or gas extraction income, a foreign oil or gas extraction net operating loss for that period from one country may no longer be offset against income from other countries. However, such a loss may be used as an offset for purposes of computing the taxpayer's foreign oil-related income. Further, if oil or gas is disposed of or is acquired other than from a foreign government at a "posted" or other price which differs from the fair market value, the latter shall be used in computing foreign oil or gas extraction taxable income.

Effective January 1, 1976, these loss offsets deriving from foreign oil-related income computation may also no longer be used against income from other countries. Finally, foreign oil-related loss carry-forwards must be used only against future oil-related income. Thus a corporation may not use foreign oil-related losses to offset income in any of its other non-oil operations. This is the so-called "recapture" provision.

(2) A ceiling has been imposed on the amount of foreign income taxes, incurred on foreign oil and gas extraction income, which are eligible for the foreign tax credit. This ceiling provides that such foreign income taxes are not eligible for foreign tax credit to the extent they exceed the following percentages of the statutory U.S. corporate income tax rate (currently = 48%).

a. For taxable years ending in 1975: 110% of the statutory U.S. rate. Thus, 110% times 48% = 52.8% effective ceiling.

b. For taxable years ending in 1976: 105% of the statutory U.S. rate. Thus, 105% times 48% = 50.4% effective ceiling.

c. For subsequent taxable years: statutory U.S. rate plus 2%. Thus, 48% + 2% = 50% effective ceiling.

Further, foreign tax credit carryovers from the taxable years ending before 1975 to years ending in 1975 and thereafter are to be calculated as if the above ceiling on foreign income taxes eligible for credit was in effect in the year the foreign income taxes were incurred.

These ceilings do not apply to the components of foreign oil related income which are not also included in foreign extraction income. If a company uses any foreign tax credits, then it may not use other taxes paid to a foreign country as a deduction from U.S. taxable income if these other taxes are ineligible for the foreign tax credit, except as follows. Income taxes paid to a foreign country in connection with the purchase or sale of oil or gas extracted in that country are not eligible for a foreign tax credit against U.S. taxes unless the taxpayer has an economic interest in those minerals and bought/sold them at a price other than the fair market value. However, these "ineligible for foreign tax credit" income tax payments to foreign countries may still be claimed as a deduction in computing U.S. taxable income.

5.3 Investment Tax Credits

Eligibility for investment tax credit for drilling rigs and other property used for offshore exploration and production activities has been restricted under the new law. These restrictions are effective for property acquired, constructed, or repaired after March 18, 1976. The old law made eligible for the investment tax credit any property other than a sea-going vessel or aircraft when the property was used in international or territorial waters to explore, produce, and transport resources. The new law requires such property to be used exclusively in the territorial waters of North America and the Caribbean. The main purpose of this provision was to reduce company investments in drilling rigs outside the U.S. territorial waters.

Sources used in compiling this note:

1. Standard Federal Tax Reporter, Commerce Clearing House, New York. Years 1974 and 1975.

2. Miller's Oil and Gas Federal Income Taxation, Commerce Clearing House, Chicago. Years 1974 and 1975, and various supplements to both years' volumes.